THE RELATIONSHIP AMONG TEACHER'S PERCEPTIONS OF ORGANIZATIONAL JUSTICE, JOB SATISFACTION, WORK STRESS AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR IN CHINESE PRIVATE UNIVERSITIES

By

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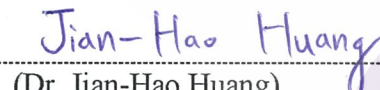|	
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ABSTRACT

How to improve internal governance, stimulate teachers' positive work performance and creativity, boost effectiveness and competitiveness of private universities of mainland China has become an urgent research subject. The purpose of this research is to explore the path relationship and influence mechanism among teachers' perceptions of organizational justice, job satisfaction, work stress and organizational citizenship behavior at Chinese private universities. In this study, the questionnaire survey method is adopted. Private universities teachers in mainland China are taken as the research mother group, and 1,000 questionnaires are distributed to teachers of 10 private universities in different regions of mainland China by using convenient sampling method, then 920 are collected of which 837

are valid. There are four scales to be used: organizational justice perceptive scale, job satisfaction scale, work stress scale and organizational citizenship behavior scale. The findings of the research show: teachers' perception of organizational justice and job satisfaction have significant predictive influence on organizational citizenship behavior; teachers' perception of organizational justice has significant predictive influence on job satisfaction; partial mediator effect can be met between the relationship of organizational justice perceptive and organizational citizenship behavior; work stress plays a negative moderator role in the influence of organizational justice perceptive on organizational citizenship behavior. Based on research findings and limitations, some suggestions on academic, practical and policy are put forward.

Keywords: Chinese Private Universities; University Teachers; Perceptions of Organizational Justice; Job Satisfaction; Work Stress; Organizational Citizenship Behavior

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Namburi, Bangkok

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Chapter 1

INTRODUCTION

This study aims to explore the relationship and mechanism of teachers' organizational justice perceptive and organizational citizenship behavior in private universities of mainland China and verify the mediating effect of job satisfaction and the moderating effect effect of work stress in this relationship. In this study, the empirical research on organizational citizenship behavior is put into the cultural background and educational context of private universities in mainland China, and the influence mode and path relationship are constructed to verify the suitability of the theoretical model in this study. This study hopes to provide new insights on organizational citizenship behavior in a new context and make efforts for the development of human resource management practice and the theoretical exploration of teachers' organizational citizenship behavior in private universities.

1.1 Research Background

With the popularization of higher education and the severe situation of global childless population, the student source crisis is becoming more and more prominent, and higher education in many countries is under different degrees of development pressure. Whether in developing or developed countries, the improvement of school efficiency and quality is the most important issue. According to the macro situation at home and abroad, the Chinese government places the quality improvement of higher education at the height of the national development strategy. In recent years,

China has launched and continued to promote the construction of first-class universities and disciplines within the scope of public higher education, outlining a new vision and blueprint for the current and future development of higher education in China. The organizational reform and efficiency improvement of public higher learning institutions are in full swing. As an important part of higher education in mainland China, private higher education cannot be absent from the quality development and efficiency improvement of higher education. Since 2010, the Chinese government has set the goal of building a number of high-level private universities, and then constantly strengthen financial and policy support for private education. At the same time, through the implementation of non-profit and profit-making classified management reform in private schools, the government continues to standardize the development of private education. These have pushed private higher education to a new stage of quality improvement.

By the end of 2018, there have been 749 private universities (including 265 independent colleges) in the Chinese mainland, accounting for 28.13% of the total number of universities in the country; 6.496 million students are enrolled in private universities or colleges, accounting for 22.95% of the total number. There are 1490 postgraduate students (Department of Development & Planning, Ministry of Education, the People's Republic of China, 2018). Some private universities have made great breakthroughs in the level of running schools, while some private universities are restricted by the external environment and their own development and face hidden or obvious running risks. Faced with the development situation at home and abroad and its own, only by shifting from the stage of rapid growth to the stage of high-quality development, can private universities meet the higher standards, more

diversified and personalized education needs, and enjoy the preferential treatment of the state's support for private schools with high quality, obvious characteristics and significant social benefits. Otherwise, it may fall into the risk society described by Scott (2013) that it is just like a person standing in the river with his neck deep for a long time, as long as a small wave coming, then he will fall into the catastrophe. It is imperative to improve the efficiency and competitiveness of private universities.

Although an organization can improve its competitiveness in a variety of ways, western scholars increasingly emphasize the importance of employee behaviors that are not explicitly specified in their formal job responsibilities (Farh, Earley, & Lin, 1997). The design of any organization cannot be perfect, and it must rely on the initiative of the members to perform the extra-role behaviors not required by the organization, so as to make up for the deficiency of intra-role responsibilities (Organ, 1990). These behaviors within the informal job responsibilities or outside the role are organizational citizenship behavior, also known as OCB (used as abbr. of "organizational citizenship behavior" hereafter). Some studies have also pointed out that the success of an organization depends on its members' performance of OCB, which is essential to maximize the efficiency of the organization (Davoudi, 2012). It can not only promote mutual cooperation among organizational members, improve team morale and organizational cohesion, but also encourage members to take on new responsibilities and actively realize professional growth and self-development, so as to enhance the environmental adaptability of an organization (Podsakoff, MacKenzie, Paine, & Bachrach, 2000) and improve organizational performance (Robbins & Judge, 2016; DiPaola & Tschannen-moran, 2001). OCB provides a new perspective on the behavior of university teachers (Yang & Qiu, 2014). Teachers with high levels of

OCB will be willing to spend extra time for the school or students and will voluntarily make way for school or university activities (DiPaola & Neves, 2009). In the current situation, private colleges in China how to improve the internal governance, improve school organizational climate, create a fair environment, enhance teachers' job satisfaction, reasonably control of teachers' work stress, stimulate teachers' OCB more consciously, thus boost the ascension of school effectiveness and competitiveness, have become an important subject to be studied.

OCB contributes to the improvement of school effectiveness, and the perception of organizational justice, job satisfaction and work stress are important variables affecting OCB. However, there are still some deficiencies in the researches on teachers' OCB. First, from the cultural perspective, the research results on OCB have been relatively fruitful. Research focuses on the macro organizational effect to micro individual motivation, direct effect model to multiple effect model, and economic organizations to non-profit or cultural and educational organizations. However, research structures on job satisfaction, work stress, and OCB have been developed and preliminarily tested in developed countries (Yao, Jamal, & Demerouti, 2015), while the portability and practicability in developing countries and non-western countries are rarely tested (Jamal, 2016).

Second, according to the latest research of Arar and Abu Nasra (2019), the research on OCB in the field of education has increased, but more attention has been paid to primary and secondary school teachers. Although university teachers' OCB is getting more and more attention, compared with the large and diversified higher education institutions, the research results are still insufficient. The research on OCB of teachers in private universities needs to be strengthened.

Third, from the research content, it is found in the past educational field that teachers' performance of OCB is not high (Zheng, 2004; Zhao, 2013). Therefore, it is very important to understand the potential motivating factors for teachers to engage in activities beyond their job responsibilities (Cheasakul & Varma, 2015). Although OCB is associated with higher job satisfaction, this topic has received little attention in the research of higher education institutions so far (Teh, Boerhannoeddin, & Ismail, 2012). There are few empirical studies using the two-dimensional framework of work stress in the literature (Jamal, 2016), and few scholars put the four variables of this study together in the overall theoretical model.

Fourth, from the perspective of research methods and paradigms, empirical research needs to be strengthened. Studies have found that universities no longer provide low-stress working environments as they used to, and the phenomenon of occupational stress is surprisingly common and increasing (Tytherleigh, Webb, Cooper & Ricketts, 2005). Report on the development of private education in China 2015 shows that the emotional exhaustion of teachers at private universities deserves attention (Zhou & Zhong, 2017). In the literature retrieval of CNKI, there are more than 6,000 research projects on the topic of teacher burnout or pressure. There are less than 30 articles with the subject of private schools teacher burnout or pressure. Teachers' work stress or burnout has become a common phenomenon to some extent, but the empirical research on teachers' work stress or burnout in private universities in mainland China is relatively limited. When a research topic accumulates to a certain number, it is necessary to synthesize the research results. At this time, the most suitable research method is integrated analysis or large sample analysis, which can improve the inferential and explanatory power of research findings (Lin, 1987). The

deficiency of theoretical research also restricts the improvement of educational practice.

1.2 Research Motivation

Based on the above macro background and insufficient research, the motivation of this study mainly includes the following four points.

1.2.1 Explore the potential incentive factors that urge teachers to show OCB

OCB is an individual's voluntary and unconditional behavior to help solve the problems of others and organizations (Tjosvold, Hui, Ding, & Hu, 2003). It goes beyond employees' job responsibilities and is often done in their non-working hours, but is crucial to the smooth operation and efficiency of the organization (Barroso Castro, Martń Armario, & Martń Ruiz, 2004; DiPaola & Tschannen-Moran, 2001; Euwema, Wendt, & Van Emmerik, 2007; Lo, Ramayah, & Min, 2009). Research on OCB in different organizational contexts has yielded many important insights (Organ & Ryan, 1995). Scholars use the concept of OCB to study the OCB of teachers in school organizations, and believe that it is significantly correlated with school climate (Dipaola & Tschannen-moran, 2001). OCB is an important factor for school teachers' performance and good educational performance (DiPaola & Hoy, 2005; Feather & Rauter, 2004; Somech & Ron, 2007), and plays an essential role in the smooth and efficient operation of the school organization (Davoudi, 2012). The helping behavior of teachers will also be extended to colleagues, superiors and students, so that teachers are willing to share their creative ideas in schools and help colleagues, thus making schools more productive and competitive (Somech & Ron, 2007). It also has a positive impact on school organizational culture and student learning achievements

(DiPaola & Tschannen-Moran, 2001; Dussault, 2006). As an educational organization, a school is a "loosely connected system" (Weick, 1983), in which members are related to each other and maintain certain independence and considerable autonomy (Hoy & Miskel, 1982). In particular, higher education institutions are considered "special" because they provide intangible services (research and teaching) and have professional autonomy (Bauwens et al., 2019). At the same time, teaching is a complex activity, and a lot of work needs to be done in a proactive manner outside of working hours. All desirable behaviors cannot be fully stipulated in the teacher's work contract or employment contract. Therefore, school leaders or administrators should know more about how to cultivate the organizational citizenship behavior of teachers (DiPaola & Hoy, 2005; Zeinabadi, 2010). Therefore, it is necessary and important to discuss the OCB of teachers in school organizations (Guo & Fang, 2006).

Perception of organizational justice is an important variable that affects teachers' OCB. The hope of being treated fairly is a universal and basic human value (Alkhadher & Hesham, 2016). Existing studies show that organizational justice perceptive has a positive impact on OCB (Erkutlu, 2011; Greengerg, 1993; Kumar, 2009; Niehoff & Moorman, 1993; Lin, Farh, Wu, & Seetoo, 1994), which can affect the mood and work attitude of organization members, and boost the internal motivation of organization members (Chou, Seng-cho, Jiang, & Klein, 2013), so as to improve organizational performance (zapata-phelan, Colquitt, Scott, & Livingston, 2009). In school organizations, if the school system has objective standards and conforms to teachers' expectation of organizational justice perceptive according to the changes of the environment, it can boost teachers' work motivation, emotions and attitudes, and make teachers identify with the school and actively engage in their work,

which will further affect teachers' OCB (Zhao, 2013).

Job satisfaction plays an important role in OCB. Job satisfaction, an emotional state, is in essence an attitude, which leads to employees' OCB (Talachi, Gorji, & Boerhannoeddin, 2014), or a major factor in employees' OCB (Subhadrabandhu, 2012). Both internal and external factors of job satisfaction can predict OCB (Rostami, Mahdiuan, Shalchi, Narenji, & Gholami, 2009), thus having a significant impact on the achievement of organizational goals (Aboul-Ela, 2014). Employees with high job satisfaction are willing to exhibit behaviors that benefit the organization (Donavan, Brown, & Mowen, 2004) and reduce turnover intention (Robbins & Judge, 2016). Specifically, in the field of education, teachers' job satisfaction affects their teaching behavior, students' learning and the promotion effect of education implementation, and it is crucial for students to acquire the required knowledge in learning (Nguni, Sleegers & Denessen, 2006). Therefore, job satisfaction can be regarded as one of the early warning indicators in the organization. If the level of members' job satisfaction can be continuously monitored, it may be possible to find out the organizational deficiencies in work or actual communication or planning policies as early as possible and take remedial measures as soon as possible (Zhao, 2013).

To sum up, in the field of private universities under the cultural background of mainland China, how does teachers' perception of organizational justice affect their OCB? What problems does teachers' job satisfaction in private universities reflect in school management? How do they affect their willingness to exhibit OCB? This study aims to explore the generation mechanism of teachers' OCB at private universities of mainland China, and explore teachers' organizational justice perceptive, job

satisfaction influence on OCB, for private universities leaders and managers insight into teachers' work behavior and attitude to provide a new train of thought, promote their coping strategies, improve school organizational governance and the system specifications, create a fair and harmonious school climate, improve teachers' inner and external satisfaction, and then arouse teachers' OCB and professional behavior, promote the school effectiveness. It is one of the motivations of this study.

1.2.2 Investigate the influence of teachers' organizational justice perceptive on job satisfaction

Previous studies have found that organizational justice has a significant positive relationship with employee' job satisfaction (Moorman, 1991; McFarlin & Sweeney, 1992; Robbins & Judge, 2016). Meanwhile, different dimensions of organizational justice have different influences on job satisfaction, and distributive justice can predict job satisfaction better than procedural justice (McFarlin & Sweeney, 1992; Robbins & Judge, 2016). There is a high correlation between procedural justice and job satisfaction (Moorman, Niehoff & Organ, 1993; Mossholder, Bennett, & Martin, 1998; Robbins & Judge, 2016), and procedural justice is a better predictor of job satisfaction than interactive justice, although both have a significant independent effect on job satisfaction (Masterson, Lewis, Goldman, & Taylor, 2000). Do the above research findings apply to the organizational context of private universities in mainland China? What is the current situation of teachers' perception of organizational justice in private universities? Does teachers' organizational justice perceptive have a significant impact on their job satisfaction? Therefore, the second motivation of this study is to explore the influences and paths of teachers' perception of organizational justice and its different dimensions on job

satisfaction at private universities on job satisfaction.

1.2.3 Explore the influence mechanism of job satisfaction between organizational justice perceptive and OCB

Organizational justice not only has a direct impact on OCB, but also has an indirect impact through mediating variables. Studies have found that organizational justice has a positive impact on OCB through job satisfaction (Podsakoff & MacKenzie, 1993; Lin et al., 1994; Zheng, 2004). Employees' perception of justice in organizational procedures, policies and systems will affect their trust in supervisors and organizations, and they are more likely to engage in civic behavior (Konovsky & Pugh, 1994). If employees perceive injustice, which will reduce their job satisfaction, they may adopt the attitude of changing behaviors (Kernan & Hanges, 2002). OCB is most likely to occur in the case that employees are satisfied with their work, feel high emotional involvement and think they are treated fairly or work in harmony with colleagues (Spector, 2006). Job satisfaction plays mediator effect between the perception of justice and teachers' extra-role behavior (Witt & Wilson, 1991), and has partial mediator effect between organizational justice and OCB (Huang & Tong, 2008; Jhuo & Guo, 2015). Do the above research findings apply to the new situation of private universities in mainland China? Does the job satisfaction of teachers at private colleges play mediator effect between their perception of organizational justice and OCB? This is the third motivation of this study.

1.2.4 Verify the moderating effect of work stress between organizational justice perceptive and organizational citizenship behavior

The increasing stress on university teachers is the result of changes in higher education policies and social status. At the same time, an increasing number of

students and teachers, as well as the closer links between universities and the industry, make the academic world less isolated and elitist, and the working conditions of universities are also similar to that of other industries (Slišković & Seršić, 2011). The same is true of private universities in mainland China. At present, teachers of private universities in mainland China are under pressure of education and teaching, scientific research, student service management, daily administrative affairs, enrollment publicity, industry-university-research cooperation and other tasks. At the same time, under the background of Chinese culture, teachers also bear the mental pressure from society, parents, students and other aspects due to the negative perception of society faced by private universities, which leads to the invisible increase in the work load of teachers at private universities. It is found that negative emotions or pressure caused by work will lead to loss of cognitive resources and emotional exhaustion of employees (Aryee, Zhou, Sun, & Lo, 2009), which will affect employees' emotions and behavioral performance. The influence of organizational justice perceptive on employees' OCB is subject to employees' perception of work stress. For employees with low work stress, the positive influence of organizational justice perceptive on OCB will be enhanced. For employees with high work stress, the positive influence of organizational justice perceptive on OCB will be weakened (Cavanaugh et al., 2000). Tiwari and Singh (2017) found that work stress negatively moderates the relationship between job satisfaction and organizational commitment. Organizational justice perceptive is an antecentric variable of job satisfaction, which is closely related to extrinsic satisfaction dimension of job satisfaction. OCB is regarded as the outcome variable of organizational commitment, and its identity witih school dimension is closely related to emotional commitment. Bu, Zhang and Du (2018) believe that

individuals are more likely to resort to emotional responses when facing hindence stress. Therefore, when individuals perceive higher work stress, they are likely to reduce their positive attitude and judgment of organizational justice perceptive, thus having a negative impact on OCB. At present, how about the aspect and degree of teachers' work stress in private universities? Does it affects their performance of OCB by mediating their emotional attitude and organizational justice perceptive? The fourth motivation of this study is to reveal the path relationship between organizational justice perceptive, work stress and OCB.

1.3 Research Objective

This study focuses on the discussion of teachers' OCB and its influencing factors from the perspective of improving organizational competitiveness of private universities. Based on the above research background and motivation, this study systematically discusses the relationship among organizational justice perceptive, job satisfaction, work stress and OCB of teachers in private universities in mainland China. There are four specific research objectives.

First, discussing the impact of teachers' organizational justice perceptive and job satisfaction on OCB.

Secondly, analyzing the impact of teachers' organizational justice perceptive on job satisfaction.

Thirdly, exploring the mediating role of teachers' job satisfaction between their organizational justice perceptive and OCB.

Fourth, discussing the moderating effect of teachers' work stress between their organizational justice perceptive and OCB.

1.4 Research Questions

According to the research objectives, the following specific research questions are proposed:

First, do teachers' organizational justice perceptive and job satisfaction in private universities have a significant impact on their OCB?

Secondly, does teachers' organizational justice perceptive in private universities have a significant impact on their job satisfaction?

Thirdly, does teachers' job satisfaction in private universities play mediating role between their organizational justice perceptive and OCB?

Fourthly, does teachers' work stress in private universities play moderating role between their organizational justice perceptive and OCB?

Chapter 2

LITERATURE REVIEW

The purpose of this study is to explore the relationship and mechanism of teachers' organizational justice perceptive, job satisfaction, work stress and OCB in private universities of mainland China. Therefore, the discussion of relevant literature starts from the meaning, relevant research and measurement of four variables, and then sorts out the relationships among the variables, providing theoretical support for this study.

2.1 Organizational Citizenship Behavior

OCB is the "lubricant" of organization operation (Bateman & Organ, 1983; Podsakoff, 1997), and is also an important guarantee to promote the effective operation of an organization and improve its competitiveness (Farh, Earle, & Lin, 1997). In order to achieve sustainable development, school organizations must rely on teachers' OCB (Li, 2008).

2.1.1 Implications of organizational citizenship behavior

2.1.1.1 Definitions of organizational citizenship behavior

The concept of OCB originates from the concept of "cooperative system" and "willingness to cooperate" mentioned by Barnard (1938). An organization is a cooperative system formed by the willingness and effort of each person to cooperate. The more spontaneous and necessary contributions each person makes in the

organization, the more stable the authority system of the formal organization will be. Therefore, cooperation among members will contribute to the effectiveness and efficiency of the organization (Barnard, 1938). This concept of "willingness to cooperate" is not only beyond the obligation stipulated by the organization, but also a kind of contribution made by individuals with their own consciousness and spontaneity to the organization. Katz and Kahn (1978) have divided employees' behaviors in the organization into two categories: in-role behaviors and out-of-role behaviors. Moreover, in order for an organization to operate smoothly, employees must not only show their internal behaviors, but also actively engage in some extra-role behaviors. Such extra-role behavior is interpreted by Bateman & Organ (1983) as citizen behavior. The so-called organizational citizenship behavior refers to a variety of behaviors that are not directly recognized by the formal reward system of the organization, but are beneficial to the operation effect of the organization as a whole. Such behaviors are usually not included in the role requirements or job descriptions of employees, and employees can choose among themselves (Organ, 1990). This definition is widely accepted by scholars. Konovsky & Pugh (1994) put forward that OCB refers to those behaviors beyond the task requirements, so employees have the discretion and will not get remuneration from the formal reward system of the organization for such behaviors. According to social exchange theory, OCB is the reward behavior triggered by the cognition and attitude of organization members (Luthans & Avolio, 2003). Robinsons and Judge (2016) has proposed that OCB is not a requirement of employees' formal work, but it is contributes to the improvement of organizational performance. Whether a society operates well or badly depends on the frequency of many civic behaviors (i.e., the frequency of civic

behaviors).

The concept of OCB is gradually applied to the field of education. Teachers' OCB is defined as a kind of initiative, positive, dutiful and altruistic behavior that teachers spontaneously display beyond the role standard under the non-basic work requirements (DiPaola & Tschannen-Moran, 2001; DiPaola, Tarter, & Hoy, 2005). This behavior is not formally regulated by the reward system and is not explicitly enforced in the employment contract (Zeinabadi, 2010). At the same time, it is also the behavior that is helpful to colleagues, students and principals, which can be extended to the behavior that is helpful to the school. The performance of teachers' OCB will help improve the efficiency and efficiency of the school (Kao & Su, 2013). In the context of education, OCB is defined as teachers' activities outside their formal job responsibilities with the school, teachers and students, with the purpose of promoting and achieving organizational goals of the school (Somech & Oplatka, 2014).

All definitions indicate that OCB includes good behaviors conducive to organization, management, groups and individuals (Bauwens, Audenaert, Huisman, & Decramer, 2019). The definition of teachers' OCB emphasizes three main characteristics: First, it must be voluntary, not a prescribed role or part of a formal job description; Secondly, it focuses on behaviors that not only occur in the organization, but also directly target the organization or are seen as beneficial to the organization. Thirdly, OCB is multi-dimensional in nature (Nasra & Heilbrunn, 2016).

To sum up, OCB is the cooperative behavior that employees obey the organization and voluntarily display. This kind of behavior goes beyond the requirements of roles and job responsibilities, and is not within the scope of formal

norms and rewards of the organization, but contributes to the improvement of organizational effectiveness. This study further defines teachers' OCB as: Teachers are influenced by the positive atmosphere of the school's organizational culture and system. In addition to the formal work content or reward system of the school, they spontaneously and voluntarily display active, positive and innovative behaviors that are beneficial to the school, colleagues and themselves, and contribute to the improvement of the school's organizational efficiency.

2.1.1.2 Research dimensions of organizational citizenship behavior

Since OCB spans different fields, scholars have put forward different perspectives to construct the operational connotation of OCB. Smith, Organ and Near (1983) first have proposed the two dimensions of "altruism" and "conscientiousness" through factor analysis. Altruism refers to the initiative of employees to assist specific others in organizational tasks or problems. Conscientiousness refers to the willingness of employees to exceed organizational standard and requirements in certain roles. Subsequently, Organ (1988) has proposed the five-dimensional structure, namely, sportsmanship, conscientiousness, courtesy, altruism and civil virtue. This is the basis for measurement in many studies of OCB (Babcock & Strickland, 2010). Sportsmanship refers to the ability of organization members to refrain from complaining about the occasional unpleasant event. Conscientiousness refers to the ability of organization members to spontaneously perform certain role behaviors beyond the minimum requirements of the organization. Courtesy is the action of helping others preventing certain problems in advance. Altruism refers to the free will of organization members to provide assistance to specific members inside and outside the organization to solve problems related to the organization. Civil virtue refers to

responsible participation in the organization political life, such as taking an active interest in or participating in the discussion of the organizational issues. Williams and Anderson (1991) summarize OCB into two dimensions: Directed to the organization (OCBO) and Directed to individuals (OCBI). When job requirements are not clearly defined, these two behaviors are particularly critical for discretionary and altruistic behaviors (Gerpott et al., 2017; Niemeyer & Cavazotte, 2016). Farh, Earley, & Lin (1997) propose the five-dimensional structure of Chinese OCB. Bolino, Hsiung, Harvey, & LePine (2015) propose the three-dimensional structure of OCB: Helping, voice and individual initiative.

Representative OCB research dimensions are shown in Table 2.1.
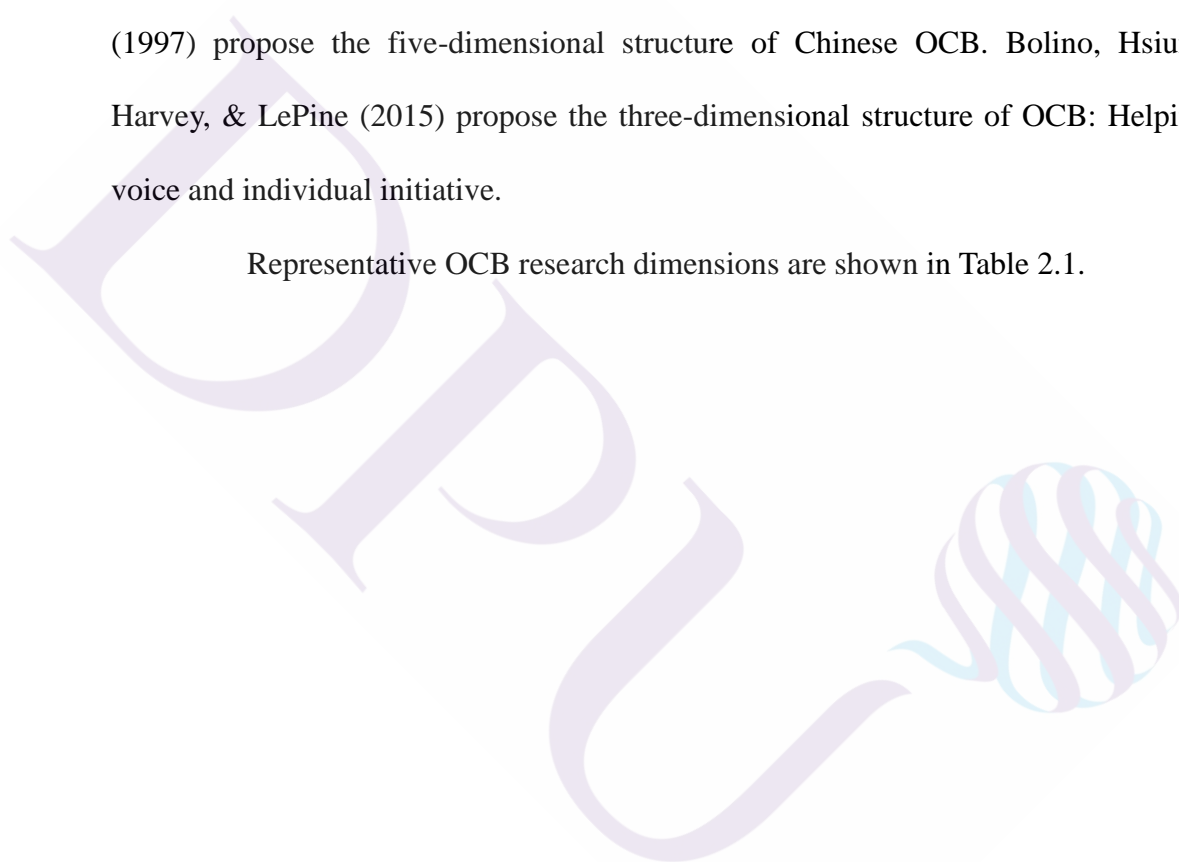
Table 2.1 Summary of representative organizational citizenship behavior research dimensions

No of dimensions	Researcher (time)	Dimension content
Two dimensions	Smith, Organ, & Near (1983)	Altruism, Compliance
	Williams & Anderson (1991)	Directed to the organization Directed to individuals
Three dimensions	Van Dyne, Graham, & Dienesch (1994)	Obedience, Loyalty, Participation
	Bolino et al. (2015)	Helping, Voice, Individual initiative
Five dimensions	Organ (1990)	Sportsmanship, Conscientiousness, Courtesy,Altruism, Civil virtue
	Farh et al. (1997)	Identification with the company, Altruism toward colleagues, Conscientiousness, Interpersonal harmony, Protecting company resources
	Podsakoff, MacKenzie, Moorman, & Fetter (1990)	Altruism, Courtesy, Sportsmanship, Conscientiousness, Civil virtue
Six dimensions	Lin et al. (1994)	Identify with the organization, Assist colleagues, Not trouble for profit, Public and private, Conscientiousness, Self-enrichment
Seven dimensions	PodsakoffP, MacKenzie, Paine, & Bachrach (2000)	Helping behavior, Sportsmanship, Organizational loyalty, Organizational compliance, Individual initiative, Civic virtue, Self-development

Source: This table is from the researcher.

After the concept of teachers' OCB is proposed, it is firstly divided into three different dimensions: OCB towards the own qualification, OCB towards the team, OCB towards the organisation (Dipaola & tschannen-moran, 2001; Christ, Van Dick, Wagner, & Stellmacher, 2003). Since then, three-dimensional structures of teachers' OCB have appeared successively: Self-development, Devotion for university and Help to colleague (Zhou & Li, 2009); Benefit of school behavior, Benefit of others behavior and Job involvement (Xie & Wang, 2010). Four-dimensional structure: Active participation, Practical orientation, Sense of responsibility, Courtesy and thoughtfulness (Rego, 2007); Professional dedication, Altruism, Identification with school, and Non-selfish pursuit (Fan & Lin, 2010). Five-dimensional structure: Caring for school benefits, Helping behavior, Dedication behavior, Work self-requirements, Respect for school system (Zheng, 2004); Organizational loyalty, Assisting colleagues, Organizational participation, Conscientiousness and Self-development (Peng & Zhang, 2007); Initiative to help others, Conscientiousness, Respect the system, Self-demand and Identify with the organization (Yang, 2019). Polat (2009), Sawalha, Kathawala and Magableh (2019) follow the five-dimensional structure of Organ (1990) to measure the OCB of middle school teachers and university teachers respectively. Shareef, Atan (2019) and Bauwens et al. (2019) study university academic staff's OCB by using the two-dimensional structure from Williams and Anderson (1991).

The research dimensions of representative teachers' OCB are shown in Table 2.2.

Table 2.2 Summary of representative teachers' organizational citizenship behavior research dimensions

No of dimensions	Researcher (time)	Dimension content
Two dimensions	Bauwens, Audenaert, Huisman, & Decramer (2019)	Directed to the organization Directed to individuals
Three dimensions	Dipaola & Tschannen-Moran, 2001; Christ et al. (2003)	OCB towards the own qualification OCB towards the team OCB towards the organisation
	Zhou & Li (2009)	Self-development Devotion for university Help to colleague
	Xie & Wang (2010)	Benefit of school behavior Benefit of others behavior Job involvement
	Ho (2015)	Benefit of others behavior Benefit of organization behavior Dedication to work
Four dimensions	Rego (2007)	Active participation Practical orientation Sense of responsibility Courtesy and thoughtfulness
	Fan & Lin (2010)	Professional dedication, Altruism Identification with school Non-selfish pursuit
Five dimensions	Zheng (2004)	Caring for school benefits, Helping behavior, Dedication behavior, Work self-requirements, Respect for school system
	Peng & Zhang (2007)	Organizational loyalty, Assisting colleagues, Organizational participation, Conscientiousness, Self-development
	Yang (2019)	Initiative to help others, Conscientiousness, Respect the system, Self-demand, Identify with the organization

Source: This table is from the researcher.

Existing studies have pointed out that higher education institutions can be considered "special" because they provide intangible services (research and teaching) and have characteristics such as professional autonomy (Bauwens et al., 2019). However, according to Brunsson and Sahlin-Andersson (2000), there is no significant difference between higher education institutions and other organizations in the relationship between employees and their organization. Through literature review, it can be found that, although existing studies have expanded the connotation and research dimension of teacher's OCB in combination with the characteristics of school organizations, they have not left the basic definition of OCB by Smith, Organ and Near (1983), Farh et al. (1997), Dipaola and Tschannen-Moran (2001).

For the sake of cultural suitability, this study mainly absorb the five-dimensional structure of Chinese organizational citizenship behavior by Farh et al. (1997) as the operational connotation of this study, and define the meanings of the five dimensions as follows: Identify with the school: teachers strive to maintain the school image, actively provide constructive suggestions and programs and other initiatives conducive to the development of the school. Altruism toward colleagues: teachers are willing and happy to care and help colleagues at work. Conscientiousness: teachers conscientiously fulfill their duties and abide by the school rules and regulations, and strive to enrich themselves and improve their work quality. Interpersonal harmony: teachers do not pursue personal interests, but engage in political behaviors that may destroy the harmonious atmosphere of the school. Protecting school resources: teachers do not use school resources or office hours for personal use.

2.1.2 Research on organizational citizenship behavior

Since its birth, the theory of OCB has been expanded and widely applied in organizational behavior, human resource management, education and other fields, forming a theoretical framework based on social exchange theory and psychological contract, and producing many empirical research results.

2.1.2.1 The theoretical basis of organizational citizenship behavior. Social exchange theory and psychological contract theory are the main theoretical basis of OCB (Bateman & Organ, 1983). Social exchange theory originates from the "social behavior of exchange" of Homans (1958), and then Blau (1964) gradually has established the theoretical basis. Social exchange theory holds that human interaction is an exchange behavior. In the exchange process, everyone is motivated by the pursuit of maximum profit and obtains satisfactory rewards or benefits on the premise of fairness. Rewards are divided into intrinsic rewards and extrinsic rewards. The former usually has no practical value to both sides of exchange, but is conducive to group stability and individual satisfaction. The latter often consider the pros and cons, when the exchange behavior does not meet expectations, the paying party will withdraw from the exchange relationship. Interpersonal interaction has the nature of exchange, which can be divided into economic exchange and social exchange. The former gets economic reward through interpersonal interaction, while the latter gets emotional support or recognition through interpersonal interaction. Exchange is a voluntary behavior, because the return is full of uncertainty, so trust becomes a necessary condition for social exchange. Based on the social exchange theory, when a member of an organization thinks that he or she can share some benefits in the organization, the member will pay back in a positive way, which is the way of OCB.

The view of psychological contract is put forward by Robinson and Morrison (1995). According to psychological contract theory, when there is a psychological contract between employees and their organization, or when the organization fulfills its obligations of psychological contract, the members of the organization will give positive feedback to the organization and show OCB. On the contrary, when employees perceive that organizations violate psychological contracts, positive OCB will be inhibited. Therefore, the perspective of psychological contract is applied to the school situation. If the school can cater to the expectations and beliefs of teachers and enter into a psychological contract, it will help teachers contribute to the school consciously and actively and show a high level of OCB.

2.1.2.2 Influencing factors of organizational citizenship behavior. Organizational commitment (Bhatti et al., 2019; Ehigie & Otukoya, 2005; Huang, 2007; Oliver et al., 2003) and organizational trust (Lim et al., 2018; Lmer, Kabasakal, & Dastmalchian, 2014; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Organ & Ryan, 1995; Wu, Tang, & Luo, 2007) have a positive or direct impact on OCB. Through their trust and commitment to the school, teachers can be at ease in their jobs，which help the generation teachers' OCB (Guo, 2006). Organizational identity can effectively predict teachers' OCB (Nguyen, Chang, Rowley, & Japutra, 2016). Teachers' perception of organizational support and psychological contract can significantly predict OCB (Chen & Li, 2015). Educational organizations rely on social structures and relationships, especially trust, cooperation and leadership, and trust is more important than leadership style for teachers' OCB (Krastev & Stanoeva, 2013). Organizational culture is positively correlated with OCB, and the individual/collective cultural tendency of the school will also have an impact on teachers' OCB (Bolino,

Hsiung, Harvey, & LePine, 2015). Therefore, principals should establish an organizational structure and school culture to help teachers do their jobs without being bound by bureaucratic rules and procedures (Hoy & Sweetland, 2001). There is a significant relationship between students' standardized test scores and teachers' OCB level (DiPaola & Hoy, 2005). Individual behavior is affected by the work environment, so the relationship between citizen fatigue and OCB depends on the perceived level of organizational support, the quality of team member exchange relationship and the pressure of participating in OCB (Bolino et al., 2015). Environmental turbulence has a moderating effect on OCB and its negative effects (Liu, Zhou, & Shi, 2017).

Leadership behaviors and styles have positive impact on employees' OCB (Nasra & Heilbrunn, 2016; Nguni et al., 2006; Smith et al., 1983). If leaders and subordinates trust, respect each other and assume their respective responsibilities and obligations, subordinates' OCB will be more common (Wayne & Liden, 1997). The higher the emotional exchange and work support between school supervisors and teachers, the higher the demonstration of teachers' OCB (Zheng, 2004). The leadership behavior of elementary school principals is positively correlated with teachers' OCB (Wang, 2009), and can highly explain teachers' OCB. Principal Moral Leadership (Ahmad, Donia, Khan, & Waris, 2019; Fan & Lin, 2010; Ribeiro, Duarte, & Filipe, 2018; Wu & Fang, 2007), Transformation Leadership (Huang & Tong, 2008), Distribution Leadership (Hsieh & Wang, 2010), Service Leadership (Ebener & O'Connell, 2010), Emotional Wisdom Leadership (Hsieh & Yang, 2013), Positive Leadership (Hsiao, 2015) and Authentic Leadership (Ribeiro et al., 2018) have significant and positive impact on teachers' or employee' OCB, which can motivate the teachers or employees to demonstrate OCB. At the same time, Service Leadership

has a positive impact on subordinates' OCB by creating a group-level procedural fair atmosphere and service atmosphere, and improving the self-efficacy and commitment to leadership of subordinate individual levels (Walumbwa, Hartnell, & Oke, 2010)), and also improve subordinates' OCB by affecting their organizational identity (Gao & Zhao, 2014). Principal leadership behavior not only has a direct impact on teachers' OCB, but also indirectly affects teachers' OCB by raising teachers' psychological capital (Chen, 2017). Career perception has an indirect effect on the relationship between transformational leadership and OCB (Arar & Abu, 2019).

Work attitude is a reliable predictor of OCB, and people who have emotional attachment to the organization show more citizenship behavior (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Organ & Ryan, 1995). If a person has collectivist values or norms, he/she is more likely to make citizenship behavior (Moorman & Blakely, 1995). Employees with high positive emotions are more likely to show OCB than employees with lower emotions (Fredrickson, 2003). Emotions, multiple commitments and occupations have a significant impact on the different dimensions of OCB (Imer, Kabasakal, & Dastmalchian, 2014). Employees' sense of overqualification has a significant negative effect on their OCB (Chen, Zou, & Pan, 2017; Li & Hung, 2010). Work anger plays a partial intermediary role between the sense of overqualification and employee OCB (Chen et al., 2017). There is a significant correlation between teachers' self-efficacy and their OCB (Dussault, 2006). Job involvement can effectively predict teachers' OCB (Geng & Wei, 2016; Huang, 2003; Rich, Lepine, & Crawford, 2010; Rurkkhum & Bartlett, 2012; Tang, Chin, & Wu, 2017). Job crafting promotes teachers' job engagement by improving the meaning of work. The more teachers involve in their work, the more their OCB (Geng & Wei,

2016).

OCB and its extent vary among individuals and may have "free-riding" problems (Reiche et al., 2014). Not all employees in the organization present OCB, which is restricted by the ability of the individual. The stronger the individual's ability, the more energy they have to do extra work (Liu et al., 2017). The motivation for OCB is multiple (Bolino, Klotz, Turnley, & Harvey, 2013). OCB can sometimes be thought of as an impression management act (Bolino, 1999), a process by which individuals control or manage the impressions that influence others' expectations (Leary & Kowalski, 1990). These behaviors enhance or protect the image of the individual in the eyes of others (Bolino, Kacmar, Turnley, & Gilstrap, 2008). OCB is generated by individuals based on impression management and generalized exchange motivation. Individuals presenting OCB are processes that demonstrate their ability to acquire resources or benefits, and are related to individuals' acquisition of leadership emotional trust. Therefore, impression management is positively related to OCB (Liu et al., 2017).

Good OCB stems from the individual's personality traits (Bolino, 1999). Individual differences (Kong & Jeon, 2018) and individual perceptions of emotional performance rules (Diefendorff, Croyle, & Gosserand, 2005) often influence employee choices for surface behavior or deep behavior. The influence of personality traits on teachers' OCB is indirectly achieved through the mediating effect of job involvement (Tang Jiawei et al., 2017). Motivation has a direct positive impact on OCB (Sukarman et al., 2018). According to Singh and Singh (2009), responsibility and extroversion are the most powerful predictors of OCB (Aftab, Rashid, & Ali Shah, 2018). Ko, Choi, Rhee, and Moon (2018) using Job Requirements—Resource Model

study have found that social capital helps increase employees' OCB, while at the same time affecting OCB through dual mediation of emotional regulation and job involvement. That is, employees with strong social capital show a high level of OCB through deep behavior and high job involvement.

In addition, job characteristics are an important factor influencing OCB (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Family interference in work conflicts is negatively correlated with OCB, and OCB is significantly negatively correlated with work intervention family conflicts and role overload (Liu et al., 2017).

In summary, the research on the antecedent variables of OCB focuses on organizational characteristics, leadership behavior, personality traits, characteristics and other variables. At present, more studies begin to focus on the mechanism of how personal traits and individual differences and external factors influencing OCB by affecting individual emotions and attitudes. Work emotions and attitudes, leadership behaviors and methods, organizational culture and working environment all have different degrees of predictive power for OCB. Based on social exchange, psychological contract and other theories, when teachers believe that they have received emotional support, personality respect and self-development needs from the school, their commitment and sense of identity to the school will be gradually enhanced, and it is easier to show a high degree of OCB. Based on the impression management theory, in order to gain emotional trust from leaders and more opportunities for promotion and development, individuals will also take the initiative to display OCB. Through literature review, it can be found that although there have been abundant research achievements on OCB, most researches on teachers' OCB focus on primary and secondary schools, and few involve universities. Therefore, it is

necessary to study teachers' OCB in private universities.

   2.1.3 Measurement of organizational citizenship behavior

      According to different research purposes and objects, scholars have developed different scales to measure the performance of OCB. Earlier developments were Smith, Organ and Near (1983) OCB Scale. The scale is divided into two dimensions of altruistic behavior and general obedience. The scale has a total of 16 items, which have been verified and have good reliability and validity. The OCB scales of Podsakoff and MacKenzie (1989) have been used, modified and validated by Podsakoff, MacKenzie, Moorman and Fetter (1990), Moorman (1991), Niehoff and Moorman (1993), and have been widely adopted by scholars. The scale is based on the general manager and employees of the theater management company. According to Organ (1990) definition of civic responsibility, OCB is divided into five dimensions: altruism, courtesy, sportsmanship, responsibility and civic virtue. The Cronbach's α coefficient for each dimension ranges from .70 for civic virtues to .85 for altruism (Moorman, 1991; Podsakoff et al., 1990).

      The OCB scale developed by Williams and Aderson (1991) is measured by the employee supervisor. There are 13 items in the scale, which are divided into two dimensions: behaviors that benefit the organization and behaviors that benefit individuals. The Cronbach's α coefficients of the two dimensions are .88 and .75 respectively. In order to measure Chinese OCB, Lin, Farh, Wu and Seetoo (1994) developed the localized OCB scale with the employees of eight large-scale enterprises in Taiwan electronic consulting industry and their direct supervisors. There are a total of 19 items in the scale, including six dimensions of identity with the organization, assisting colleagues, not competing for profit, separating public from private,

dedication to obey the law and self-enrichment. The Cronbach's α coefficient of the total scale is .92, and the reliability of each dimension is above .78. Moorman and Blakely (1995) take business undergraduates and graduate students as test objects, divide OCB into four dimensions: interpersonal help, individual initiative, personal industry and loyalty support, and develop the OCB scale.

Considering that Chinese people express OCB differently from western countries, Farh et al. (1997) developed the Chinese OCB scale by taking the managers and supervisors of 10 different organizations (including electronics, machinery, chemical industry, food companies, financial institutions, management consultants and government institutions) as test samples. There are 20 items in the scale, which are divided into five dimensions: Identification with the company, Altruism toward colleagues, Conscientiousness, Interpersonal harmony, Protecting company resources. The reliability values of each dimenseion are .87, .87, .82, .86, .81, repectively. Drawing on the views of Williams and Anderson (1991), Lee and Allen (2002) also divide OCB into two dimensions: behaviors that benefit the organization (OCBI) and behaviors that benefit specific individuals (OCBO). Based on the distinction between the two behaviors and workplace deviant behaviors, they developed the OCB scale. The scale has a total of 16 items, and the reliability of two dimensions is .83 and .88, respectively. In order to explore the OCB of public servants, Xu (2003) has designed and developed the public sector OCB scale with the chief executive of Taiwan civil servants as the object of measurement. The scale has a total of 34 items, including six dimensions of dedication, group, duty, loyalty, participation and enthusiasm. The Cronbach's α coefficient of the scale is .95.

With the increasing emphasis on the theory of OCB in the field of education,

Somech and Drach-Zahavy (2000) have developed the teacher extra-role behavior scale with primary school teachers as the subject of measurement. There are a total of 24 items in the scale, which are divided into three levels: extra-role behavior towards the student, extra-role behavior towards the team, extra-role behavior towards the organization. The Cronbach's α coefficients for the three subscales are .79, .81, and .83, respectively. Dipaola and Tschannen-Moran (2001) design the school OCB scale with public primary and secondary school teachers as subjects. The scale has a total of 15 items, which are divided into two dimensions: behaviors directed toward helping individuals (OCBI), behaviors directed at helping the organization (OCBO). The Cronbach's α coefficient is .96. Zheng (2004) has developed the OCB Scale with a sample of teachers from the primary school. There are 20 items in the scale, which are divided into five aspects: caring school benefits, helping people behavior, professional behavior, work self-requirement, and respecting the school system. The Cronbach's α coefficient is .94. Referring to the OCB scale of Lin et al. (1994), Wang (2009) has compiled a scale of OCB for Taiwan primary school teachers. There are a total of 27 items in the scale, which are divided into four dimensions: identity school, professional ethics, initiative assistance and interpersonal harmony. The Cronbach's α coefficient of the total scale is .96, and the Cronbach's α coefficient for each dimension is between .86 and .93. When studying the influence of primary school principals' distributed leadership and teachers' OCB on students' learning performance, Hsieh and Wang (2010) developed the teacher OCB by referring to previous research results. There are 12 items in the scale, including three dimensions: OCB of benefit schools, OCB of benefit others, and devotion to work. The Cronbach's α coefficient of the subscale is between .84 and .89, and the overall

scale is .93. In this study, the OCB scales commonly used by scholars are arranged as Table 2.3.

Table 2.3 Summary of commonly used organizational citizenship behavior scales

Compiler (time)	Subject	Internal consistency	Dimension No	Item No
Podsakoff & MacKenzie (1989)	Manager and employee	＞.85	5	24
Williams & Aderson (1991)	Employee supervisor	＞.88	2	13
Lin et al. (1994)	Employees and supervisors	.92	6	16
Farh et al. (1997)	manager	＞.87	5	20
Somech & Drach-Zahavy (2000)	Primary School Teachers	＞.83	3	24
Dipaola & Tschannen-Moran (2001)	Primary and secondary school teachers	.96	2	15
Lee & Allen (2002)	employees	＞.88	2	16
Xu (2003)	Civil servant	.95	6	34
Zheng (2004)	Primary School Teachers	.94	5	20
Wang (2009)	Primary School Teachers	.96	4	27
Xie & Wang (2010)	Primary School Teachers	.93	3	12

Source: This table is from the researcher.

Organizational citizenship behavior is related to culture (George & Jones, 1997). Because of cultural differences, cognitive differences caused by people's cultural values may have a profound impact on the relationship between citizen

behavior and other constructs (Farh et Al., 1997). Therefore, some empirical studies on OCB conducted in Chinese scenarios all refer to Farh et al. (1997) Chinese OCB scale (eg, Qiu, Li, & Li, 2015; Snape, Chan, & Redman, 2006; Wang, Sun, & Zhang, 2012; Zhang & Luo, 2015). Based on the scale, Cao and Long (2007) and Zhao (2013) have conducted measurement of OCB for primary and secondary school teachers and university teachers. These steudies provide the pre-validation of cultural and educational contextual adaptability of the scale being used to measure private college teachers' OCB in mainland China. Therefore, this study chose Farh et al. (1997) as a measurement instrument for teachers' OCB.

2.2 Perception of Organizational Justice

Organizational justice is currently one of the main research topics in the field of organizational behavior and human resources (Cojuharenco & Patient, 2013). Creating a climate of organizational justice is an important precondition for the effective implementation of organizational transformation (Novelli, Kirkman, & Shapiro, 1995). The organization needs to make employees realize that the management measures in the decision-making process are very fair, so as to boost employees' intrinsic motivation and employee performance to improve organizational performance (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001).

2.2.1 Implications of organizational justice perceptive

2.2.1.1 Definitions of organizational justice perceptive

Organizational justice perceptive is simply understood as employees' views on whether they are treated fairly in the organization (Greenberg, 1990; Moorman,

1991). Subsequently, Folger and Cropanzono (1998) argue that organizational justice refers to a set of social norms and decision-making methods that regulate the relationship between people in the allocation of organizational resources. Beugre (1998) argues that organizational justice refers to the individual's perception of the fairness of various exchange activities in an organization, whether social or economic, and involves the relationship between an individual (he or she) and his or her superiors, subordinates, peers and organizations as a social system.

With the development of justice theory, scholars have given a clearer definition in combination with their respective studies, and further improved the meanings of organizational justice. Organizational justice is the subjective fairness perception of organizational members concerned with organizational resource allocation results, internal management systems, interpersonal interactions, etc. (Guo & Fang, 2006; Johnson et al., 2006; Robbins & Judge, 2016; Wang, 2009; Wu, 2009; Zhao, 2013). Yang, Wu, Hong, & Yang (2008) define organizational justice as the subjective cognition of employees on the organizational decision-making process and results, the decision of various rewards and punishments, performance evaluation and measurement, and the interaction between supervisors and employees in the decision-making process.

In summary, this study defines organizational justice perceptive of teachers in private universities as: subjective perception of justice of teachers concerned about school resource allocation results, internal management systems, interactions between leaders (administrator) and teachers in the decision-making process and other work-related matters.

2.2.1.2 Research dimensions of organizational justice perceptive

Research on organizational justice has begun with the study of fairness theory by American psychologist Adams (1965). The theory holds that people will compare their own situation with the situation of others to judge whether they are treated fairly, rather than by certain absolute criteria. According to this theory, one person compares the ratio of one's perceived outcomes (such as salary, bonus, welfare, promotion, etc.) to inputs (such as knowledge, technology, ability, effort, education, etc.) with the ratio of other people's outcomes to inputs. Here Adam (1965) emphasizes the perception of justice of distribution results, that is, distributional justice. However, justice theory and distributive justice model cannot fully predict people's response to the understanding of injustice (Crosby, 1976), so the concept of procedural justice has been proposed in subsequent studies (Folger & Greenberg, 1985). People collect information about their social identity by analyzing the fairness of procedure (Lind & Tyler, 1988). The sense of procedural fairness is positively correlated with the self-esteem of subjects (Lind & Tyler, 2001). Afterwards, Bies and Moag (1986) have proposed the concept of interactive fairness, emphasizing whether organizational members have a sense of fairness in terms of their received treatment and the communication with each other (Yang et al., 2008). Later, Greenberg (1993) has divided interactive justice into two specific types: the first is interpersonal justice, which reflects the extent to which authorities or third parties treat people with courtesy, dignity and respect when implementing procedures or deciding results. The second is called information justice, which focuses on providing explanations to people, conveying information about why the program is used in some way or why it is distributed in some way (Aboul-Ela, 2014).

Organizational justice reflects the extent to which individuals believe they are treated fairly at work. Existing research has basically determined the three-dimensional structure of organizational justice: distributional justice, procedural justice and interactive justice. Distributive justice, or outcome justice, reflects people's perception of whether the allocation of resources and rewards in an organization is fair (Adams, 1963). The individual compares his/her input/harvest ratio with the input/harvest ratio of others. If the ratio is equal, the individual feels fair; otherwise, he/she feels unfair. If employees are dissatisfied with their results, they will balance the ratio of input to output by changing their performance (Cropanzano & Schminke, 2001). Procedural justice is defined as the perceived justice of organizational allocation decisions and procedural processes, and can also be described as the appropriateness of the operations, procedures and techniques used to achieve the final decision (Cohen-Charash & Spector, 2001). It focuses on the fairness in the process of distribution results and the methods and services followed in making organizational decisions (Colquit, Greenberg, & Zapata, 2005), that is, the process of dispute resolution and the disputer's control over the process--process control and decision control. Interaction justice is related to people's perception of the quality of interpersonal treatment that the organization gives to employees during the process of procedural implementation. That is, fair interpersonal treatment requires administrators to communicate with employees honestly and treat employees in a polite and respectful manner (Colquitt, 2001).

In summary, this study, by referring to the above theories, divides teachers' organizational justice perceptive of private universities into three dimensions: distributive justice, procedural justice and interactive justice. Distributive justice:

refers to teachers' cognition of whether the school's decisions on workload, learning opportunities, resource allocation and rewards are consistent with fairness. Procedural justice: refers to teachers' cognition of whether the methods and mechanisms used in school decision-making process are consistent with fairness, that is, whether the school can accept teachers' opinions and timely modify methods to treat teachers when making decisions. Interactive justice: refers to teachers' cognition of whether human interaction in the decision-making process is consistent with fairness, that is, whether the school can treat teachers with respect, sincerity and care in the decision-making process.

2.2.2 Research on organzation justice perceptive

In an organizational context, organizational justice plays a key role in predicting work-related outcomes (Colquitt, Greenberg, & Scott, 2005; Colquitt et al., 2001), and job satisfacation (Witt & Wilson, 1991; Bakhshi, Kumar, 2009)), OCB (Guo et al., 2007; Niehoff & Moorman 1993; SkarliCki & Latham, 1996; Yu & Zhong, 2008), organizational commitment, trust (Wu, Tang, & Luo, 2007), intention to leave (Robbins et al., 2016), work performance (Cropanzano, Paddock, Rupp, Bagger, & Baldwin, 2008; Zapata-Phelan, Colquitt, Scott, & Livingston, 2009) and other organizational effect variables. Salary justice and procedural justice are positively correlated with organizational commitment, and procedural justice has higher explanatory power. The relationship between salary justice and retention commitment is obvious, and external justice has the highest explanatory power. Procedural fairness is significantly related to identity commitment (Lin et al., 1994). There is a relationship between the dimensions of organizational justice and organizational performance. Liu, Long and Li (2003) have explored the impact of organizational

justice on organizational outcome variables in the context of Chinese culture. The results show that organizational justice has a good predictive effect on the main organizational effect variables such as outcome satisfaction, organizational commitment, evaluation of authority, OCB, and performance. Among them, leadership fairness has significant predictions for all organizational effect variables except salary satisfaction. Inheriting the three-dimensional theory of organizational justice, Guo and Fang (2006) further enriched the connotation of teachers' perception of organizational justice: Distributive justice refers to the teachers' justice perceptive on school organizational resource allocation, such as workload distribution, responsibility and reward distribution; and procedural fairness refers to the teachers' perception of justice in the process and process of school organization decision making; As for interactive justice, it refers to the perception of teachers who are fully communicated and respected before making decisions about school organization.

In summary, the three dimensions of organizational justice have different influences on organizational effect variables: distributive justice has a greater predictive power on the results based on individuals, such as job satisfaction and resignation intention; Procedural fairness is more predictive of organization-related outcomes, such as organizational commitment and OCB; However, interactive justice has a greater impact on the results related to managers, such as satisfaction with managers, commitment to managers, and OCB related to managers. Organizational justice perceptive directly or indirectly affects work behavior and work effect variables.

2.2.3 Measurement of organizational justice perceptive

Different scales are commonly used in the literature to measure the

perceptions of organizational justice. The first is organizational justice perceptive scale developed by Moorman (1991). The scale consists of 18 items, measuring three dimensions of organizational justice perceptive. Among them, 5 items of distributive justice measure the degree of correlation between employees' salary and their performance and input. 7 items of procedural justice measure the extent to which fair procedures are used in an organization. 6 items of interactive justice, which measure the fairness during the implementation of these procedures and activities. The Cronbach's α coefficient of three dimensions of the scale exceeds .90, and the reliability is very strong.

Another scale that is more widely used is Niehoff and Moorman (1993) organizational justice perceptive scale. The scale is developed on the basis of Moorman (1991) scale, which is also divided into three dimensions: distributive justice, procedural justice and interactive justice, with a total of 20 items. At that time, Cronbach's alpha coefficients of three dimensions were all above .90, and CFI of three dimensions was .92.

Based on the four-factor theory, Colquitt (2001) has prepared an organizational justice perceptive scale composed of four dimensions: distribution justice, procedural justice, information justice and interpersonal justice. The results of confirmatory factor analysis have showed that the four-factor model and data have the best fit degree, and the four fair dimensions could predict different results.

In order to examine the relationship between organizational justice and organizational effect variables, Liu et al. (2003) have compiled the organizational justice perceptive scale in the context of Chinese culture with Chinese employees as the object of measurement. The scale has a total of 22 items, which are divided into

four dimensions: procedural justice, distributional justice, leadership justice and information justice. The Cronbach's α coefficient of each dimension is above .88, and the Cronbach's α coefficient of the overall questionnaire is .95, indicating that the scale has good homogeneity reliability.

Zheng (2004) takes primary and secondary school teachers as research object and develops organizational justice perceptive scale that includes two dimensions: reward justice and procedural justice. The scale has a total of 6 items and the overall Cronbach's α coefficient is .91. This study will organize the commonly used organizational justice perceptive scales as shown in Table 2.4.

Table 2.4 Summary of commonly used organizational justice perceptive scales

Compiler (time)	Subject	Internal consistency	Dimensions No	Item No
Moorman (1991)	Employees	＞.90	3	18
Niehoff & Moorman (1993)	Employees	＞.90	3	20
Colquitt (2001)	Employees	.78~ .79	4	20
Liu, Long, & Li (2003)	Employees	.95	4	22
Zheng (2004)	Teachers	.91	2	6

Source: This table is from the researcher.

By combing the literature, many scholars (eg, Terzi et al., 2017; Ting, 2016; Zainalipour, Fini, & Mirkamali, 2010) have conducted an empirical study on organizational justice perceptive, and discussed primary and secondary school teachers' perceived organizational justice based on Niehoff and Moorman (1993) organizational justice scale. Wang (2009) and He (2010) have translated, revised and verified the scale to Chinnese. Wang (2009) conducts a survey of employees in various industries and types of work in more than 40 cities in more than 10 provinces

in mainland China. He (2010) collects employee data in different types of enterprises in 22 cities in mainland China, and analyzes three different factors from organizations, leaders and individuals through empirical research. There are many knowledge workers. This study believes that the organizational characteristics of primary and secondary schools and knowledge-based enterprises have many similarities with private colleges. Niehoff and Moorman (1993) organize fairness scales for this research purpose, culture and educational situation. Therefore, this study selects organizational justice scale from Niehoff and Moorman (1993) as a tool to measure teacher's fairness perception.

2.2.4 Relationship between organizational justice perceptive and organizational citizenship behavior

The study found that organizational fairness positively affects organizational citizenship behavior (Erkutlu, 2011; Bakhshi & Kumar, 2009; Moorman, 1991; Niehoff & Moorman, 1993; Yu & Zhong, 2008). When organizations treat employees fairly, the signal that employees are valued is sent to everyone, so employees may engage in more discretionary altruistic behavior (Greengerg, 1993). And employees who feel he/she is being treated fairly tend to express OCB (Samudi, AliFarnia, Vahidifar, & Zemestani, 2012). Conversely, when the individual subjective perception is unfair, the balance of this unfair state will reduce personal investment. At this time, employees generally choose to reduce their OCB that does not affect personal compensation and relatively low cost (Niehoff & Moorman, 1993). Studies in the field of education show that when teachers' perception of organizational justice on schools is enhanced, teachers' psychology will be stabilized and little sense of panic can be generated. In addition, organizational members can focus more on the

long-term interests of the organization with the trust and commitment between leaders and members (Robbins & Judge, 2016).

The different dimensions of organizational justice have different effects on OCB. Interactive justice is the only fair dimension that is significantly associated with OCB, and those who believe that their superiors are fair to themselves are more likely to demonstrate citizenship behavior (Organ, 1990). Managers are more likely to be perceived as fair if they actively communicate justice through interactive justice rather than relying solely on procedural justice (Greenberg, 1990). The academic staff's cognition of performance management fairness affects their job burnout and OCB. When performance management fairness is considered high, academic employees have lower job burnout. And academic staff's perception of distributive and interactive justice in performance management increases OCB by reducing employee burnout (Bauwens, Audenaert, Huisman, & Decramer, 2019).

The study has found that the impact of organizational justice on OCB is not a linear relationship, but a mediating variable (Pan, Tan, Qin, & Wang, 2010). Trust, organizational commitment, contractual relationship, organizational political perception, etc. play a mediating role between organizational justice and OCB. Procedural justice influences the generation of OCB through the trust of superior supervisors to employees (Konnovsky & Pugh, 1994). Organizational justice has a positive impact on employee' OCB through organizational commitment (Dewis, 2012). Trust and commitment are mediators in the process of school organizational justice affecting teachers' OCB (Guo & Fang, 2006). The formation of OCB partly comes from the supervisor's goodwill treatment and strategy stimulation. When a diligent and honest subordinate perceiving the supervisor's treatment of fairness,

respect and trust, he/she will generate the psychology of active feedback and show the OCB (Hsieh & Wang, 2010). Distributive justice and procedural justice enhance the performance of OCB by creating an environment conducive to contractual relationships between employees and their organizations (Farh et al., 1997). Organizational political perception has a significant mediating effect on the relationship between organizational justice perceptive and OCB (Yang et al., 2008). Organizational procedural justice in schools is a significant positive predictor of teachers' OCB, while job burnout is a significant negative predictor of teachers' OCB. Job burnout plays a significant mediating role in the relationship between teachers' organizational justice perception and their OCB (Pan et al., 2010). Zhao (2013) has explored the relationship among organizational justice perceptive, workplace friendship, work vitality and OCB of teachers in private university of science and technology. It has been found that university teachers' organizational justice positively affects their OCB, and also will indirectly affect their OCB through workplace friendship and work vitality.

Therefore, organizational justice perceptive is an important variable that affects teachers' OCB. Extending to the school field, when teachers perceive the fairness of the school system, they will tend to act beyond the role requirements based on rewarding psychology to pay back schools. But when teachers perceive injustice, in order to alleviate the unfair perception in the heart, they will respond to unfair treatment by reducing the performance of OCB in order to alleviate the perception of injustice without affecting individual performance appraisal.

2.3 Job Satisfaction

Job satisfaction or employee satisfaction (also known as morale) is one of the most frequently used variables in organizational behavior (Bakhshi, Kumar, & Rani, 2009), which can affect the motivation of employees and the efficiency and effectiveness of the enterprise organization (Aziri, 2011). Therefore, understanding employees' job satisfaction is of great significance to retain valuable employees, improve employees' commitment and satisfaction with work, reduce employee turnover rate and improve employee performance.

2.3.1 Implications of job satisfaction

2.3.1.1 Definitions of job satisfaction

The concept of job satisfaction has been first put forward by Hoppock (1935), who has defined job satisfaction as any combination of psychological, physiological and environmental conditions, meaning workers' subjective response to the work situation.Based on the perspective of justice theory, Adams (1963) believes that job satisfaction is an indi vidual's perception of the same ratio of work input to output as others. Job satisfaction refers to an individual's positive orientation towards his current job role (Vroom, 1964).According to the reference framework, Smith, Kendall and Hulin (1969) believe that job satisfaction refers to the individual's feelings or emotional responses to various aspects of work.Locke (1976) points out that job satisfaction is the state of pleasure experienced by an individual due to job evaluation or work experience, that is, the emotional response of an individual to his work (Kreitner & Kinicki, 1992). Job satisfaction is the general attitude of employees towards their work. High job satisfaction means they have a positive attitude towards their work. Conversely, it indicates that people are dissatisfied with their jobs and

have negative attitudes (Robbins, 1998;Robbins & Judge, 2016).Job satisfaction refers to workers' attitude and recognition of their working environment (Barling, Kelloway & Iverson, 2003), which comes from their views on their own work and the degree of adaptability between individuals and organizations (Ivancevich & Matteson, 2005).It is a pleasant emotional state that arises from an individual's evaluation of work to achieve and promote the achievement of individual work values (Thiagaraj & Thangaswamy, 2017).

Integrating the definitions of scholars, Spector (1997) sorted out three important features of job satisfaction. First, the organization should be people-oriented. These organizations will aim to treat employees with fairness and respect. In this case, the assessment of job satisfaction can be a good indicator of an employee's productivity. A high level of job satisfaction can be a sign of good emotional and mental state of the employee. Second, the behavior of employees depends on how satisfied they are with the work, which will affect the operations and activities of the organization's business. Job satisfaction can lead to positive behavior, and conversely, dissatisfaction with work can lead to negative behavior of employees. Third, job satisfaction can be an indicator of organizational activity. Through the assessment of job satisfaction, you can define different levels of satisfaction for different organizations, but in turn it can be a good indicator of where organizations should make changes to improve performance.

In summary, this study considers that teacher job satisfaction refers to a positive attitude or a happy emotional state that the individual teacher is satisfied with due to various needs.

2.3.1.2 Research dimensions of Job Satisfaction

In the early studies on job satisfaction related factors, Fournet, Distefano and Pryer (1966) considered that there are two types of factors that affect job satisfaction: (1) personal characteristics, including age, education, gender, intelligence, personality traits, and so on. (2) Work characteristics: organization and management, salary, work safety, work monotony, leadership supervision, communication, etc. Weiss, Davis, England and Lofquist (1967) divided job satisfaction into two dimensions: inner satisfaction and external satisfaction. Internal satisfaction assesses the degree of satisfaction that an organization member feels in the work itself; external satisfaction assesses the degree of satisfaction that an organization member feels at work through others or the environment. Locke (1976) argues that job satisfaction is the result of interaction between work events and actors, so the factors that affect job satisfaction are divided into work events and actors. (1) Work events, including the work itself (work values, sense of accomplishment, etc.), work remuneration (remuneration, promotion, supervisor's appreciation, etc.) and work environment (work conditions, physical environment, social environment, etc.). (2) The actor, including the actor itself, others inside and outside the organization. At the same time, Seashore and Taber (1975) summarized the framework of factors related to job satisfaction, covering the antecedents and consequences of job satisfaction. See Figure 2.1 for details.

Front variable

Consequence variables

Environmental Factor
a.Political Environment
b.Work Type
c.Internal
  Organizational
  Environment
d.Work and Work
  Environment

Job
Satisfac
-tion

Individual Response
Variable
a.Fall Back
b.Attack
c.Job Performance

Personal Attribute
Factors
a.Demographic
  Variables
b.Personality Trait
c.Ability

Tissue Response
Variables
a.Productivity
b.Organizational
  Performance
c.Mobility

Figure 2.1 Architecture diagram of job satisfaction related factors

Source: Seashore & Taber (1975)

Specter (1997) divides job satisfaction into two broad categories: one is the complete feeling of work: job satisfaction is a complete construct that can be assessed as satisfying or not. The second is the attitude towards different aspects of the work: job satisfaction is divided into several facets to evaluate. Chou and Peng (2005) have divided university teachers' job satisfaction into eight aspects: teaching satisfaction, administrative system, colleague interaction, promotion and learning, student feedback, salary and remuneration, available resources, and overall job satisfaction.

In summary, according to Weiss et al. (1967), this study divides teachers' job satisfaction into two dimensions: internal satisfaction and external satisfaction. Internal satisfaction refers to the degree of satisfaction teachers feel from their work itself. External satisfaction refers to the degree of satisfaction that the teacher feels

through others or the environment at work.

2.3.2 Research on job satisfaction

Job satisfaction is negatively correlated with turnover probability and work accidents (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Vroom, 1964), positively related to job performance (Judge, Thoresen, Bono, & Patton, 2001), which can influence employee motivation and organizational efficiency and effectiveness (Aziri, 2011). Higher job satisfaction can significantly reduce employee turnover (Brewer, Chao, Colder, Kovner, & Chacko, 2015). Job satisfaction also has a significant positive impact on organizational commitment (Greenberg, 1997; Currivan, 2000; Slattery, & Rajan Selvarajan, 2005; Yücel, 2012; Gheitani, Imani, Seyyedamiri, & Foroudi, 2019). Higher job satisfaction leads to higher employee loyalty (Vanderberg & Lance, 1992). Individuals who have a strong sense of identity with the organization can look more positively about their actual work and achieve higher job satisfaction. Job satisfaction can be seen as a key motivator of human workplace behavior (Shah, Irani, & Sharif, 2017), which will lead to better performance for employees and greater commitment to their organization. Highly satisfied employees tend to make extra efforts and make a positive contribution to the effectiveness and efficiency of the organization (Thiagaraj & Thangaswamy, 2017).

The studies have found that organizational factors such as workload and working conditions were negatively correlated with job satisfaction. At the same time, job satisfaction was also affected by a range of factors such as job nature, salary, promotion opportunities, management, and work groups (Vanderberg & Lance, 1992; Robbins & Judge, 2016). A high level of employee involvement leads to an increase in satisfaction, and employees who are satisfied often participate in high-involvement

activities and are more willing to accept new programs (Robert, George, & Lloyd, 2008). There is a significant positive impact between psychological ownership and job satisfaction. A sense of psychological ownership makes employees feel that they are part of the organization, hoping that they can achieve organizational goals to achieve job satisfaction (Nuttin, 1987). Job satisfaction is an attitude towards specific tasks that stems from salary satisfaction and other environmental factors, job characteristics, quality of supervisor support, and social relationships (Van Dick et al., 2004). Organizational identity affects job satisfaction, which in turn affects the most specific attitude toward the organization and predicts employee turnover intentions (Dick et al., 2004). Job satisfaction is developed by employees' understanding of the work environment, such as their understanding of the adequacy, variability or fairness of their work (Brief, 1998). Most employees feel satisfied if a job can provide training, diversity, independence, and control (Barling, Kelloway, Iverson, 2003). Salary is indeed related to job satisfaction and overall well-being, and personality plays an important role in job satisfaction (Robbins & Coulter, 2017). Cansoy (2019), combing the relationship between principals' leadership behavior and teachers' job satisfaction, found that the principals' transformational leadership which is an important predictor of job satisfaction and teachers' job satisfaction are stronger than the interactive leadership. There is a negative correlation between laissez-faire leadership and job satisfaction. Principal servant leadership and ethical leadership are important variables to ensure job satisfaction.

In summary, job satisfaction has a significant impact on outcomes such as individual performance, organizational goals, and organizational performance, and also affects employee turnover, loss, and other deviations. At the same time, job

satisfaction is affected by the work environment, organizational identity and other factors.Therefore, schools can adopt various measures to improve teachers' job satisfaction by monitoring teachers' job satisfaction, so as to strengthen teachers' organizational identity and commitment, stimulate teachers' inner motivation and encourage them to show more job involvement and out-of-role behaviors.

2.3.3 Measurement of job satisfaction

In order to measure job satisfaction, the scholars have based on different focus points, compiled a special scale to explore different job satisfaction characteristics. A global indicator of job satisfaction is developed by Brayfield and Rothe (1951). The scale assesses the extent to which respondents agree or disagree with a series of assessment statements, Cronbach's alpha coefficient of .78 to .99, which is considered to have sufficient validity and reliability (Price & Mueller, 1986). Another widely used scale is The Minnesota Satisfaction Questionnaire (MSQ), designed by Weiss, Davis, England and Lofquist, which is divided into two dimensions: intrinsic satisfaction and external satisfaction, and measures satisfaction from 20 items. The scale has a Long Form with 100 items and a Short Form with 20 items, which can be traced back to 1967 and 1977, respectively. The Job Description Index (JDI) is a 70-items designed by Smith, Kendall, and Hulin (1969) that measures one's satisfaction from five dimensions: salary, promotion and promotion opportunities, colleagues, supervision, and work itself.

The general job satisfaction scale (JDS) is a five-item scale developed by Hackman and Oldham (1975), which measures people's satisfaction and happiness with their jobs. The scale has good psychological measurement characteristics, and the Cronbach's alpha coefficients verified twice are .79 and .78 respectively (Hackman &

Oldham, 1975). The Job Satisfaction Survey (JSS) was compiled by Spector (1985) with a total of 36 items, divided into 9 dimensions, with internal consistency of .60 to .91. The Job Overall Index (JIG) is constructed by Ironson, Smith, Brannick, Gibson and Paul (1989) based on the job description index to understand the overall job satisfaction. A total of 18 items are divided into 5 dimensions and the internal consistency is .91~.95. The colleague satisfaction scale compiled by Radoslavova and Velichkov (2005) contains 14 items, including three dimensions of support, trust and formal relationship. The internal consistency is .76, .79 and .86, respectively.

When investigating job satisfaction of middle school teachers, Zainalipour, Fini and Mirkamali (2010) have developed the job satisfaction scale. There are 22 items in the scale, which are divided into five dimensions of salary, job (job nature), promotion opportunity, supervisor and colleague. The reliability estimation value is .86, and Cronbach's alpha coefficients of five dimensions are respectively .77, .70, .79, .88 and .70.

In this study, the job satisfaction scale commonly used by scholars is summarized as Table 2.5.

Table 2.5 Summary of commonly used job satisfaction scales

Compiler (time)	Subject	Internal consistency	Dimensions No	Item No
Brayfield & Rothe (1951)	Employees	.78~.99	1	5
Weiss et al. (1967) (MSQ, Long Form)	Employees	.85~.95	5	100
Weiss et al. (1977) (MSQ, Short Form)	Employees	.77~.92	2	20
Smith et.al. (1969)	Employees	＞.70	3	72
Hackman et al. (1975)	Employees	0.715	7	25
Spector (1985)	Employees	.60~.91	6	36
Ironson et al. (1989)	Employees	.91~.95	3	18
Radoslavova & Velichkov (2005)	Employees	.76~.86	3	14
Zainalipour, Fini, & Mirkamali (2010)	Teachers	.86	5	22

Source: This table is from the researcher.

The Minnesota Satisfaction Questionnaire Short Form has been widely used by many scholars in various empirical studies. Seibert & Kraimer (2001), Rahman, Sulaiman, Nasir, & Omar (2014) have used it to measure the mediating role of secondary school teachers' job satisfaction between self-efficacy and OCB. Zhang and Gu (2010) have translated and revised Short Form of the scale, and measured the knowledge employees of high-tech enterprises, with good reliability and validity. As Brunsson and Sahlin-andersson (2000) say, higher education institutions are not significantly different from other organizations in terms of employee-organization

relationship. This study also suggests that the organizational characteristics of private universities, as well as their teachers' job nature and occupational characteristic, are similar to those of middle schools, high-tech enterprises and their affiliated members. Therefore, the Minnesota Satisfaction Questionnaire Short Form translated and revised by Zhang and Gu (2010) is selected as a tool to measure teachers' job satisfaction in private universities.

2.3.4 Relationship between job satisfaction and organizational citizenship behavior

Job satisfaction is closely related to individual behavior in the workplace (Davis & Nestrom, 1985) and has a positive impact on OCB (Bateman & Organ, 1983; Lee & Allen, 2002; Somech & Drach, 2000; Talachi, Gorji, & Boerhannoeddin, 2014). Both internal and external factors of job satisfaction can predict OCB (Rostami et al., 2009). Some scholars believe that job satisfaction is the main factor that leads to OCB of employees (Lester, Meglino, & Korsgaard, 2008; Subhadrabandhu, 2012). Good motivation (such as job satisfaction, fairness and justice) will motivate employees to exhibit OCB. When employees perceive job satisfaction, they are more willing to exhibit OCB (Donavan, Brown, & Mowen, 2004). Many studies cite social exchange theory when interpreting the results of OCB. According to this theory, highly satisfied employees will demonstrate behaviors that are beneficial to the organization (Bateman & Organ, 1983). Employees who are satisfied with their work will make extra efforts to make a positive contribution to the organization (Sawalha, Kathawala, & Magableh, 2019). There is a moderate correlation between job satisfaction and OCB, and people with job satisfaction are more likely to show OCB (Ronbbins & Judge, 2016). There is a direct positive correlation between job satisfaction and OCB

(Sawalha et al., 2019), which can effectively predict OCB (Shareef & Atan, 2019).

Previous studies have found that teacher job satisfaction is positively correlated with out-of-role behaviors of the three levels of school system (students, teams and organizations) (Somech & Drach, 2000), and has a significant impact on teachers' OCB (Nguni, Sleegers, & Denessen, 2006). There is a strong link between teachers' job satisfaction and OCB (Huang & Huang, 2012). Higher job satisfaction can effectively promote the generation of teachers' OCB. Teachers with high job satisfaction will show more behaviors of class management, caring for students, caring for colleagues, promoting school performance and improving self-ability. Teachers with high self-efficacy can effectively promote the generation of teachers' OCB through high job satisfaction and low job burnout (Li, 2008). Moreover, teacher job satisfaction is a mediator variable between transformational leadership and organizational commitment, transformational leadership and OCB (Nguni, Sleegers, & Denessen, 2006), and also plays mediating effect between teacher psychological capital and OCB (Huang & Huang, 2012). Teachers' job satisfaction has a direct and positive impact on their OCB (Seibert & Kraimer, 2001; Rahman et al., 2014; Ajat, Mukhtar, & Wahyudi, 2019).

To sum up, job satisfaction is closely related to OCB and has a strong explanatory and predictive power for OCB. In general, people with high job satisfaction show positive OCB, are more likely to talk positively about organizing and helping others, and do more work than expected. This may be a positive experience they want to give back.

2.4 Work Stress

More and more organizations are beginning to focus on improving and intervening in work stress (Dewe, 1994). It is found that moderate work stress can motivate individuals to work hard to achieve work goals, achieve a certain level of work and self-requirements; excessive work stress often causes individuals to feel anxiety, oppression, and even leads to low job satisfaction, poor physical and mental health, and increases turnover intention (Lu et al., 1999). Work stress has become one of the most important topics in the study of organizational behavior.

2.4.1 Implications of work stress

2.4.1.1 Definitions of work stress

Psychologist Selye (1956) first has used stress to describe tension, which refers to the physiological and psychological state caused by the body to cope with the situation of great pressure. Then, French & Kahn (1962) have applied the concept of stress in the workplace and proposed the social environment model of stress. He believes that work stress, as a subjective feeling of individuals, arises when the environmental requirements exceed the load that individuals can bear, and then affects individual behavior and physical and mental health. The interaction theory views work stress from the perspective of the interaction between environment and individuals, and defines work stress as the stress symptoms caused by the interaction between many variables in the work situation and individuals (Lazarus, 1978). Some studies also describe work stress as a dynamic condition, that is, individuals are faced with opportunities, requirements or resources they value and desire, but are uncertain about whether they can obtain or satisfy (Cooper, Dewe, & Driscoll, 1980). According to Beehr (1995), work stress is some job characteristics in the work environment that

are considered to affect mental or physical health, or risk factors that may lead to poor health.

Teachers' work stress is derived from the definition of work stress (Kuo, 1989). Kyriacou and Suticliff (1978), two pioneers known as teachers' stress researchers, have believed that teachers' work stress refers to the negative emotions generated by teachers at work, such as anger or depression, and reaction symptoms may change with pathology and physiology. When teachers perceive that they cannot meet the requirements of work or work beyond the load, physical and mental imbalance will be caused, resulting in anger, anxiety, powerlessness and other negative emotions, which will threaten self-esteem and personal happiness (Kyriacou & Sctcliflie, 1978; Morocco & Mcfadden, 1982). Teachers' work stress comes from the gap between teachers' needs, values and expectations and the occupational remuneration or job requirements and teachers' ability to meet these needs (Needle, 1980). The source of teachers' work stress is multi-dimensional, and it is the result of interaction between teachers' personal traits, school situation factors and non-occupational pressure sources (Chou & Peng, 2005).

To sum up, existing researchers' opinions on the definition of teachers' work stress are generally consistent, but there are some focuses on the specific pressure sources or influencing factors. This study defines teachers' work stress in private universities as the negative physiological, psychological or behavioral reactions caused by the differences and imbalance between teachers' external requirements such as teaching, research, administrative affairs and interpersonal relations and their internal abilities and needs in the job-related environment.

2.4.1.2 Sources of work stress

As for the sources and dimensions of work stress, different scholars put forward different classifications of WS sources. Previous studies have proposed and verified the four-dimensional structure of WS, namely, workload, role conflict, role ambiguity and performance pressure (Caplan et al., 1975;Sahu & Gole, 2008).

There are also three potential stressors proposed by some scholars (Cooper & Payne, 1978; Parasuraman & Alutto, 1984; Hart & Cooper, 2001; Robbins & Judge, 2016), who think that the stress comes from three aspects: (1) Environmental factors, including three types of environmental uncertainty: economic, political and technological. (2) Organizational factors, which are the factors within the organization that lead to work stress, are divided into task requirements, role requirements and interpersonal requirements. Task requirements are related to one's job position, including the design of the job position. Role requirement refers to the pressure brought by playing a specific role in the organization to the individual. For example, role conflict, role overload, role ambiguity can all lead to employees' work stress. Interpersonal requirement refers to the pressure brought by other employees. The lack of social support among colleagues or the tension between colleagues will cause stress to employees. (3) Personal factors, such as family problems, economic problems and personality characteristics.

See Figure 2.2: Stress model.
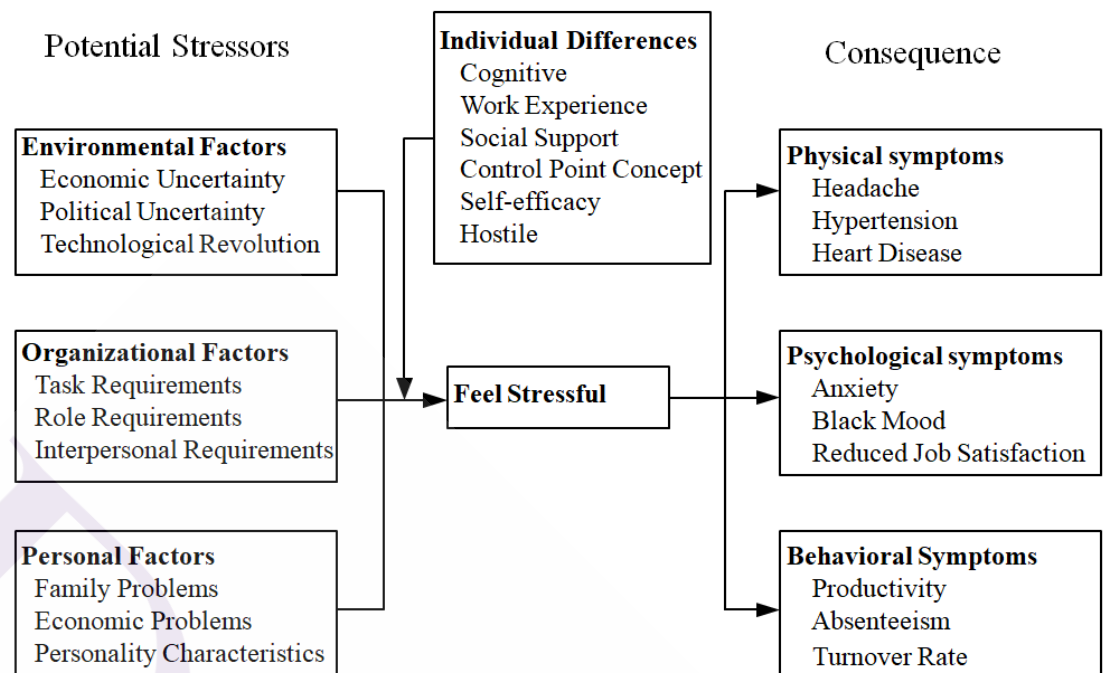
Figure 2.2 Stress model
Source: Robbins & Judge (2016)

Referring to previous research results, Ivancevich and Matteson (1980) have divided work stressors into internal and external stressors. At the very beginning of the concept of stress proposed by Selye (1982), dividing stress into two types of enstress and distress, has emphasized that researchers should consider both the positive and negative effects of stress. Subsequently, Whettent and Cameron (1985) have classified the stressors into four aspects: time pressure, interactive pressure, situational pressure and expected pressure. Time pressure is one of the most common stressors; Interactive conflict is the result of interpersonal interaction; Situational stressors are caused by one's environment; Expected stressor is an unpleasant event that has not yet happened but is likely to happen, including fear and unpleasant expectations.

Some scholars put forward that work stress does not always bring negative

feelings. Therefore, work stress is divided into two dimensional structure of challenge stressors and hindrance stressors (Cavanaugh et al., 2000; LePine & Jackson, 2004; Podsakoff & LePine, 2007; Tuckey et al., 2015). Challenge stressor refers to the job requirements that are regarded as rewarding work experience by employees, such as workload, time pressure, job responsibilities, job complexity, etc., which may provide opportunities for personal growth, but also lead to employee exhaustion, anxiety, frustration and anger (Rodell & Judge, 2009). Hindrance stressor refers to those job requirements that are regarded by employees as obstacles to personal growth, or interfere with and limit personal goals and abilities, such as organizational politics, bureaucratic habits, red tape, role conflict, lack of job security, career stagnation, etc. These negative stressful events are uncontrollable and ambiguous, which may limit the opportunities for personal growth (Wallace et al., 2009), and thus are potentially destructive to OCB (Cavanaugh et al., 2000). Some studies suggest that the positive effects of challenge stressors may be offset by the negative effects of hindrance stressors (Bakker & Sanz-vergel, 2013). The new two-dimensional framework of Challenge-Hindrance stressors has been widely concerned and studied by scholars.

Studies have found that common sources of work stress mainly include the characteristics of work itself (such as high workload), organizational characteristics (such as unreasonable promotion system) and interpersonal interaction in the workplace (such as lack of support from supervisors and colleagues) (Lu et al., 1999). Job characteristics stress includes boredom, job richness, and job load. The higher the boredom and load of work, the higher the pressure the individual feels; the higher the job richness, the lower the stress (Schaubroeck, Lam, & Xie, 2000).

Existing studies have basically reached a consensus that the perceived

stressors of employees are not always negative and harmful stress results (Cavanaugh, Boswell, Roehling, & Boudreau, 2000; Lu, Kao, Siu, & Lu, 2010). Stress has multiple dimensions, some of which are related to positive work results and can motivate employees' positive behaviors (Scheck, Kinicki, & Davy, 1995). There are also differences in work stress sources among people in different fields (Gillespie et al., 2001).

Based on the above literature and the work practice of the researcher who has been working in private universities in mainland China for many years, this study believes that the source and degree of teachers' work stress in private universities varies with their job positions and individual differences, and the influence on work performance and work results cannot be generalized. Based on this, according to the theory of Cavanaugh et al. (2000), this study divides teachers' work stress in private universities into challenge stress and hindrance stress, so as to deeply understand the pressure situation faced by teachers in private universities and the differential influence on their OCB.

2.4.2 Research on work stress

Moderate stress is optimal for job performance, because the individual is not only activated at this level, but also able to direct the individual's energy towards better performance (Jamal, 2007). The impact of excessive work stress on individuals can be reflected in three aspects: emotional, behavioral and physical. No matter what the impact on individuals will directly have a negative impact on work (Shi, 2003). The negative effects of work stress on emotions are reflected in reducing workers' commitment to the organization, internal satisfaction and motivation, and there is a tendency to leave (Summers, Decotiis, & DeNisi, 1995) and emotional exhaustion

(Pines & Maslach, 1978). The effects on behavior can be manifested in absenteeism, resignation, and reduced job performance (Armeli, Eisenberger, Fasolo, & Lynch, 1998). Work stress and job satisfaction are important psychological factors that affect performance of work behaviors (Liu, Xie, & Jing, 2005), and the curvilinear relationship with job performance is probably the most popular one in organizational behavior (Ivancevich et al., 2013). Overall work stress, challenge stress and hindrance stress are all related to work performance and turnover motivation (Jamal, 2016).

In accordance with the principle of resource saving, when employees in the face of pressure will reduce the positive behavior, containing advice behavior, responsible behavior, innovation behavior and feedback seeking behavior and many other specific behavior, because the implementation of positive behavior need to put in extra resources (such as the consumption of time and energy to form idea, plan, and implement actions, solve conflicts that the positive behavior may lead to, etc.). Due to limited resources, employees will devote more resources to their own jobs and tasks in stressful situations, rather than implementing positive behaviors (Ng & Feldman, 2008; Wang & Li, 2017). Work stress affects work behavior (Wen, Zhong, Ren, & Liu, 2017), and has a significant positive impact on employee deviation behavior. Work stress is more likely to cause negative effects and breed negative behaviors of employees, that is, employees show deviant behaviors contrary to the legitimate interests of the organization (Yao & Sun, 2018). Role conflict and role ambiguity, as important sources of work stress, will lead to negative emotions of employees, and are related to employee behaviors, such as interpersonal aggression, impolite behavior, complaining, sabotage and theft, etc (Zhu, Chen, & Peng, 2013).

Two different types of stressors, challenge stress and hindence stress, have

different effects on work results (LePine et al., 2005; Zhang, Lepine, Buckman, & Wei, 2014) and have different mechanisms of action on individual emotional experience (Wu, Guo, Huang, Bao, & Li, 2017). Challenge stress is positively correlated with organizational commitment, negatively correlated with turnover intention and turnover behavior, while hindence stress is just the opposite (Podsakoff, LePine, & LePine, 2007). Challenge and hindence stress are positively correlated with physical and mental stress (Podsakoff, LePine, & LePine, 2007). Hindence stress is often caused by a variety of "extra" work (Podsakoff et al., 2007), which makes employees trapped in all kinds of red tape, resulting in low commitment and low recognition of the organization, and thus inhibiting the development of organizational citizenship behavior (Zhang, Liu, Wang, & Qing, 2018). Zhang and Lu (2009) have studied the moderating effect of self-efficacy on employee stress, work-related attitudes and work behavior. The relationship between hindence stress/challenge stress and job satisfaction is moderated by self-efficacy. In other words, when faced with hindence stress, employees with high self-efficacy have significantly higher job satisfaction than those with low self-efficacy. For employees with high self-efficacy, challenge stress will increase their job satisfaction and reduce their turnover tendency, while employees with low self-efficacy have the opposite effect (Zhang & Lu, 2009). Ding, Geng and Bai (2017) have verified the moderating effect of psychological authorization between work stress and creativity. Psychological authorization has a significant negative moderated effect on the relationship between hindence stress and creativity. The two dimensions (significance and influence) of psychological authorization significantly negatively moderate the impact of challenge stress on creativity, while the self-efficacy dimension of psychological authorization

significantly positively moderate the impact of challenge stress on creativity (Ding, Geng, & Bai, 2017). Stress sources have different influences on job engagement and job burnout. Both challenge and hindence stressors are positively correlated with job burnout (Crawford, Lepine, & Rich, 2010). Challenge stress has a positive predictive effect on job engagement, while hindence stress has a negative predictive effect on job engagement (Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010; Wu et al., 2017).

In the field of education, middle school teachers' work sress is negative to predict job involvement; the extrinsic value dimension of work values plays the moderating role between work pressure and job involvement. When the score of work extrinsic value is high, work pressure has a significant negative predictive effect on job involvement. When middle school teachers mainly focus on external work values such as salary and material welfare, their job involvement is more likely to be negatively affected by work stress (Li, Wang, Zhang, & Ling, 2018). The increasing research on university teachers' work stress basically forms a consensus: the phenomenon of occupational stress in universities is surprisingly common and increasing, and universities no longer provide low-pressure working environment as they used to (Tytherleigh, Webb, Cooper, & Ricketts, 2005; Winefield et al., 2003). Major sources of stress for university teachers include inadequate funds and resources, work overload, time constraints, job security, lack of promotion opportunities, poor management practices, job insecurity, and unreliable recognition and rewards (Gillespie et al., 2001). Teachers of higher education are faced with relatively high occupational pressure, and their work stress comes from six aspects: material or technical conditions at work, students' work, relationships in the workplace, work

load, work organization, social recognition and status.

To sum up, work stress affects job engagement and work behavior through influencing work attitude and emotion. The work stress of university teachers comes from multiple sources. To pay more attention to the work stress of private university teachers in mainland China will help to curb the negative effects of hindence stress and highlight the positive effects of challenge stress. It is a new perspective to reveal the effect of work pressure on organizational justice perceptive on OCB. By regulating stress and organizational justice perceptive, teachers can show the optimal state of OCB and serve the development of private universities.

2.4.3 Measurement of work stress

According to different cognition of stressors, different work stress assessment scales have been developed. The work stress questionnaire is proposed and developed by Caplan et al. (1975), Sahu and Gole (2008) successively, with a total of 13 items, including four dimensions of work load, role conflict, role ambiguity and performance pressure. At that time, Cronbach's alpha coefficient was .80 (Ahsan, Abdullah, Fie, & Alam, 2009). Parker & De Cotiis's work stress scale (1983) is widely used by scholars to evaluate overall work stress. The scale contains 13 items, divided into two dimensions of time pressure and anxiety, and its Cronbach's alpha coefficients are respectively .86 and .74 (Jamal, 2007).

Occupational Stress Indicator (OSI used as abbr. of "Occupational Stress Indicator" hereafter) is a complete set of tools developed by Cooper, Sloan and Williams (1988) to evaluate the sources of work stress and the consequences of work stress. In the part of work pressure, there are 61 questions, which are divided into six dimensions: work factor itself, manager role, relationship with others, career and

achievement, organizational structure and atmosphere, family-work conflict. It has been translated into many languages and is widely used in the measurement of work stress in various occupations. The Chinese version of Occupational Stress Indicator, translated by Lu et al. (1995), has been verified and revised among employees of four state-owned enterprises in Taiwan, and is considered as a promising tool for measuring stress and related factors. The Chinese version of OSI contains 57 questions, including role conflict and lack of support, lack of stability and work-family conflict, job and career development problems, and management role pressure. At that time, the Cronbach's alpha coefficient of the scale was .86, and the Cronbach's alpha coefficient of the four sub-scales ranged from .77 to .89.

On the basis of referring to previous research results, Cavanaugh et al. (2000) have developed a new work stress scale by taking company senior management personnel as test objects, with a total of 11 items. Work stress is divided into two dimensions: challenge stress hindrance stress, and the internal consistency of the two dimensions are .87 and .75 respectively.

Teachers' work stress has been paid more and more attention. Cheng, Deng, Shi and Liu (2004) develop the teachers' work stressor source questionnaire by taking primary and secondary school teachers as test objects. There are 36 itemss in the questionnaire, which are divided into eight dimensions: education and teaching reform, students, school management, job characteristics, career development, physical and mental characteristics, family and society. The overall Cronbach's alpha coefficient is .95. Li (2005) develop the Chinese university teachers' work stress scale. There are 24 items in the scale, which are divided into five dimensions: job security, teaching security, interpersonal relationship, workload and work pleasure. At that time,

the Cronbach's alpha coefficient of the scale was .92, and the Cronbach's alpha coefficients of the four dimensions were .90, .78, .72, .81 and .77, respectively. University teachers work stress questionnaire is designed by Slišković and Seršić (2011). A total of 37 items in the questionnaire measure six groups work stress of university teachers: material or technical conditions at work, student work, relationship in the workplace, workload, work organization, social recognition and status, and the Cronbach's alpha coefficients of six dimensions were respectively .89, .82, .88, .86, .75 and .75.

In order to evaluate the positive and negative work stress sources, Wu et al. (2014) have drew lessons from the pressure theory of Cavanaugh et al. (2000), and developed challenge and hindrance work stress scale by taking enterprise employees and school principals as test objects. The scale consists of 21 items and contains two dimensions. Challenge stressors consist of workload, time stress, job responsibilities, and job complexity, while hindrance stressors consist of role ambiguity, role conflict, interpersonal tension, bureaucratic process, career obstruction, job insecurity, and organizational politics. At that time, the Cronbach's alpha coefficients of two dimensions were respectively .84 and .67. Huang and Shen (2014) have compiled the work stress scale for middle school teachers. There are 20 items in the scale, which are divided into four dimensions: professional knowledge, workload, administrative cooperation and role expectation. At that time, the Cronbach's alpha coefficient of the overall scale is .90, and the reliability values of each dimension are respectively .93, .92, .94 and .95.

In this study, work stress scales developed by some scholars are summarized in Table 2.6.

Table 2.6 Summary of commonly used work stress scales

Compiler (time)	Subject	Internal consistency	Dimensions No	Item No
Caplan et al. (1975)	Employees	.805	4	13
Parker & De Cotiis (1983)	Employees	.74~.86	2	13
Lu et al. (1995)	Employees	0.86	4	57
Cavanaugh et al. (2000)	Administrative staff	.75~.87	2	11
Cheng et al. (2004)	Teacher	.95	8	36
Li (2005)	University teacher	.92	4	24
Slišković & Seršić (2011)	University teacher	.75~.89	6	37
Huang & Shen (2014)	Secondary school teacher	.90	4	20
Wu et al. (2014)	Employees and School principal	.67~.84	2	21

Source: This table is from the researcher.

To sum up, the reliability and applicability of Cavanaugh et al. (2000) stress scale for challenge and hindrance have been gradually affirmed since its development. Empirical studies have shown that the scale has good internal consistency (Yao, Jamal, & Demerouti, 2015), and some empirical studies (Boswell et al., 2004; Wu et al., 2014) successively have applied it to the research of university staff and Chinese cultural context. According to the above literature reviews, work stress is not always

negative and harmful, which has positive and negative effects on individual job behavior. That is, appropriate work stress will transform into job motivation, on the contrary, excessive pressure will reduce employees' job satisfaction and organizational commitment, and inhibit the generation of employees' OCB. Therefore, Cavanaugh et al. (2000) scale is adopted in this study to measure teachers' work stress in private universities in different directions.

2.5 Relationship between Organizational Justice Perceptive, Job Satisfaction, Work Stress and Organizational Citizenship Behavior

2.5.1 Relationship between organizational justice perceptive and job satisfaction

Organizational justice significantly affects job satisfaction (Moorman, 1991). Those who feel fairness in an organization are more likely to be satisfied with their job, more committed to their job, and less likely to leave (Bakhshi, Kumar, & Rani, 2009). There is a significant positive correlation between organizational justice and job satisfaction. When employees perceive organizational justice in the organization, they will be more satisfied. Distributive justice has a positive impact on job satisfaction (Karimi, Alipour, Pour, & Azizi, 2013), while distributive justice and procedural justice perception has a significant positive impact on job satisfaction (Lambert, Keena, Leone, May, & Haynes, 2019).

Organizational justice and its three dimensions have influence on job satisfaction and organizational citizenship behavior (Divkan, Sartipi, Zanganeh, & Rostami, 2013; Taheri & Soltani, 2013). But the influence of different dimensions of organizational fairness on job satisfaction is also different. Procedural fairness directly affects employees' satisfaction with their superiors, while distributional fairness is a

strong predictor of pay satisfaction (DeConinck & Stilwell, 2004). Distributive justice has significant predictive power for job satisfaction, while procedural justice has no significant correlation with job satisfaction (Bakhshi, Kumar, & Rani, 2009). Distributive justice is a better predictor of job satisfaction than procedural justice (McFarlin & Sweeney, 1992; Robbins & Judge, 2016). Salary justice and procedural justice are positively correlated with salary satisfaction and salary system satisfaction. Salary justice has a higher explanatory power to salary satisfaction. The relationship between salary equity and assisting colleagues/separating public from private is obvious. Procedural fairness has an obvious relationship with identification with organization/non-disturbance and profit (Lin et al., 1994). Procedural fairness is highly correlated with job satisfaction (Moorman, Niehoff, & Organ, 1993; Mossholder, Bennett, & Martin, 1998; Robbins & Judge, 2016) and is a better predictor of job satisfaction than interactive fairness, although both have significant independent effects on job satisfaction (Masterson, Lewis, Goldman, & Taylor, 2000).

2.5.2 Relationship between organizational justice perceptive, job satisfaction and organizational citizenship behavior

Due to the correlation between job satisfaction and job performance, job satisfaction is measured as a mediator variable between various prevariables and workplace behavior (Crede et al., 2007). Employees' perception of organizational fairness can directly predict or indirectly affect their attitudes and behaviors at work through mediator variables (Irving et al., 2005; Singh & Singh, 2019). Kuo, Lin and Li (2014) have found that job satisfaction mediates the relationship between job stress and job burnout. Güleryüz, Güney, Aydın and Aşan (2008) (2008) have found that the relationship between emotional intelligence and organizational commitment is

mediated by job satisfaction.

It is found that employees' perception of organizational justice has a positive and significant impact on their job satisfaction, and job satisfaction has a positive and significant impact on organizational citizenship behavior (Podsakoff & MacKenzie, 1993). Employees are satisfied and more likely to engage in civic behavior if they believe that the organizational procedures for distributing results are fair and equitable (Konovsky & Pugh, 1994). It is also found that employees' perception of the fairness and justice of organizational policies and systems will affect employees' trust in supervisors and organizations. If employees perceive unfairness, it will reduce job satisfaction and then adopt the attitude of changing behaviors (Kernan & Hanges, 2002). Organizational citizenship behavior is most likely to occur when employees feel satisfied with their work, have a high degree of emotional involvement, feel they are treated fairly or have a good relationship with colleagues (Spector, 2006). Organizational justice has a positive impact on organizational citizenship behavior through job satisfaction (Lin et al., 1994), and job satisfaction has a partial intermediary effect in the relationship between organizational justice and organizational citizenship behavior (Jhuo & Guo, 2015).

In the field of education, the impact of procedural justice on organizational citizenship behavior will significantly affect the demonstration of teachers' organizational citizenship behavior through the mediating effect of job satisfaction (Zheng, 2004). Teachers' perception of organizational justice can significantly positively affect teachers' organizational citizenship behavior and job satisfaction, and teachers' job satisfaction can significantly positively affect teachers' organizational citizenship behavior. Meanwhile, teachers' job satisfaction has an mediating effect on

teacher's organizational justice and organizational citizenship behavior (Huang, & Tong, 2008).

2.5.3 Relationship between organizational justice perceptive, work stress and organizational citizenship behavior

It is found that the influence of organizational justice perceptive on employees' organizational citizenship behavior is limited by employees' perception of work pressure. For employees with low work pressure, the positive influence of organizational justice perception on organizational citizenship behavior will be enhanced. For employees with high work pressure, the positive influence of organizational equity perception on organizational citizenship behavior will be weakened (Cavanaugh et al., 2000). Procedural fairness increases the sense of participation of employees, improves the transparency of the process, and helps to alleviate the negative physical and emotional states caused by blocking pressure, so as to curb its destructive effect on organizational citizenship behavior. At the same time, procedural fairness increases employees' support, trust and positive evaluation of managers (Tyle & Lind, 1992), so employees will trust and agree with managers' decisions. Even if the final decision results are unfavorable to them, employees can support and comply, thus buffering the negative effects of hindence stress on organizational citizenship behavior. The inherent function of procedural fairness to resolve and quell conflicts has a significant buffer effect on the negative impact of hindence stress caused by organizational politics, red tape, role conflict, etc., which helps to alleviate the destructive effect of obstructive pressure on employees' organizational citizenship behaviors (Colquitt, Noe, & Jackson, 2002; Long & Liu, 2004).

Individual-environment matching plays a moderating role in the relationship between work stress and health. Mismatches can aggravate mental health problems caused by stress, and procedural justice is a good compensation for mismatches, easing anxiety and fatigue caused by negative stress, and buffering the negative effects of blocking stress on organizational citizenship behavior (Colquitt & Jackson, 2006). Distributive justice moderates the indirect effect of challenge stress on creativity through self-efficacy. For employees with a high sense of distributive justice, the positive indirect effect of challenge stress on creativity through self-efficacy is stronger. Hindence stress has a significant negative impact on employees' creativity by inhibiting their self-efficacy, and procedural fairness has no significant moderating effect on the relationship between blocking pressure, self-efficacy and creativity (Zhang et al., 2018). Zhang, Bu and Wee (2016) have found that work pressure has a moderating effect on the relationship between employees' sense of organizational support and creativity, especially when the pressure of challenge is high and the pressure of hindrance is low, the relationship is positive. When the pressure of challenge is low and the pressure of hindrance is high, the influence of sense of organizational support on employees' creativity is not significant. Work stress also moderates the relationship between job satisfaction and organizational commitment (Tiwari & Singh, 2017). Therefore, it can be inferred that work pressure plays a moderating effect between organizational fairness and organizational citizenship behavior.

According to literature review, it can be inferred that organizational justice perception, job satisfaction and job pressure are closely related to organizational citizenship behavior. Employees' perception of organizational fairness affects their

degree of job satisfaction. When employees perceive organizational fairness, their job satisfaction will be improved; otherwise, their level of job satisfaction will be reduced. Job satisfaction has a significant positive impact on organizational citizenship behavior. Employees who are satisfied with their jobs are more inclined to exhibit organizational citizenship behavior. Organizational justice perception not only has a direct impact on organizational citizenship behavior, but also depends on job satisfaction and is subject to work pressure, and then has an indirect impact on organizational citizenship behavior. Employees' perception of organizational fairness can stimulate their organizational citizenship behaviors by improving their job satisfaction. On the contrary, if employees perceive that the organization is unfair, it will reduce their job satisfaction, and then change or deviate behaviors to inhibit or reduce the generation of organizational citizenship behaviors. When employees perceive higher work pressure, it will weaken the positive influence of organizational fairness perception on organizational citizenship behavior, and on the contrary, it will stimulate more organizational citizenship behavior.

Chapter 3

RESEARCH METHODOLOGY

This chapter is divided into six sections. In section 1: develop the research process according to the research plan. In section 2: Develop the theoretical model to be verified in this study according to the literature. In section 3, the hypotheses of this study are presented according to the research framework. In section 4: introduces the research objects, sampling methods and questionnaire distribution. In section 5: select the research tool and demonstrate its applicability in this research. In section 6: describe the data processing and statistical analysis methods of pre-test questionnaire.

3.1 Research Procedure

This study starts from determining the research topic, and then formulate specific research plan. Through literature discussion, the theoretical research results of teachers' perception of organizational justice, job satisfaction, work stress and organizational citizenship behavior are sorted out, which serve as the theoretical basis for formulating the connotation and relationship among variables of the present study. Based on this, the research framework is established, the research hypothesis is put forward, and the measuring instrument (scales) suitable for this study is selected. Then, the selection and implementation of pre-test questionnaire will be carried out. After the pre-test questionnaire is collected, items will be screened through item analysis, factor analysis and reliability analysis to determine the formal scale. Next, the official questionnaire is distributed and tested. Recovered questionnaire data after

removing invalid questionnaire are sorted out. The correlation analysis, regression analysis and other statistical analysis are carried out to verify the hypothesis and theoretical model of this study, analyze the relationships and structural pattern among organizational justice, job satisfaction, work stress and organizational citizenship behavior of teachers in private universities, and finally a research paper will be wrote. Specific steps are shown in Figure 3.1.
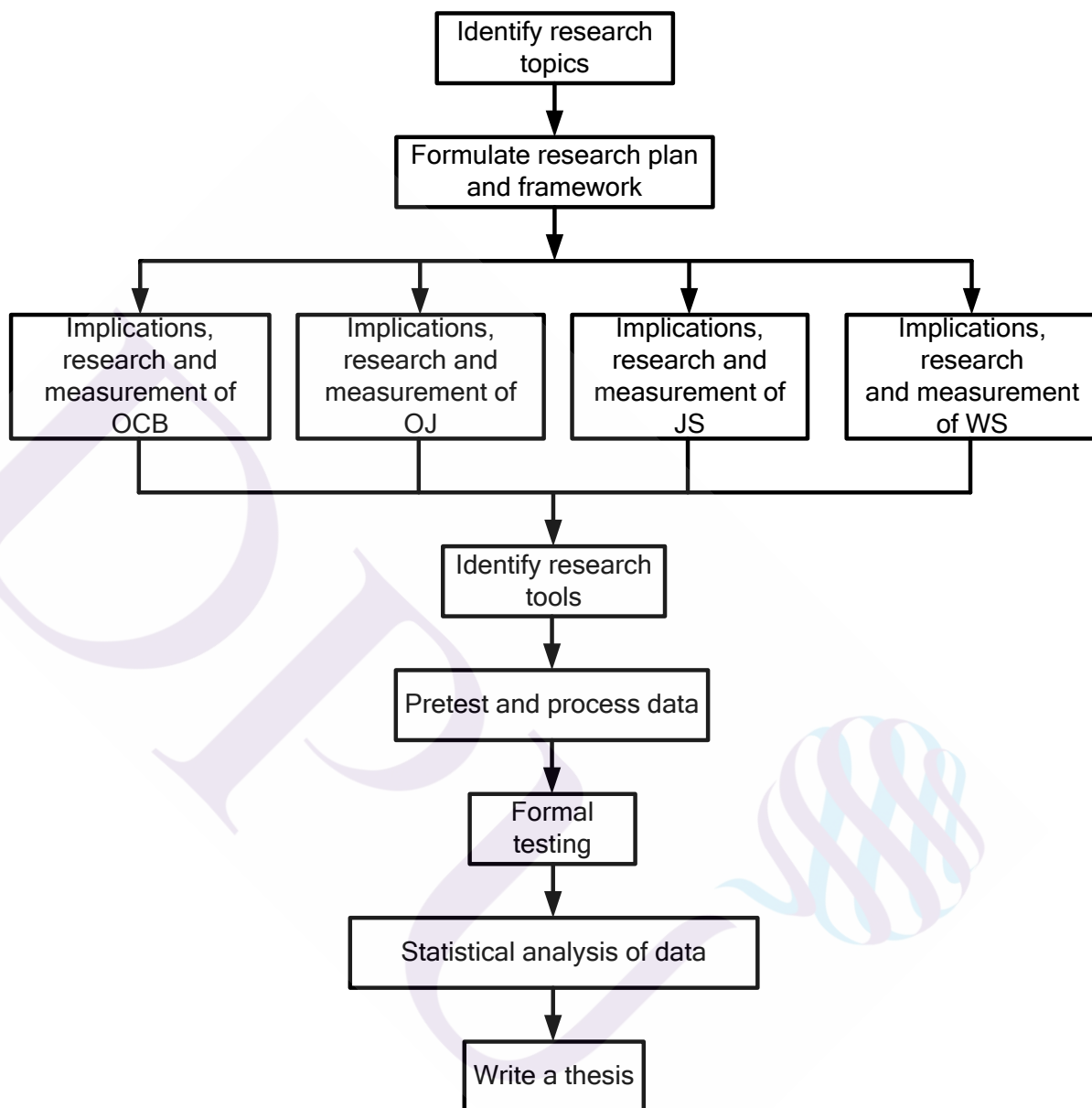
Figure 3.1 Research flow chart

Source: This table is from the researcher.

Note: OCB: Organizational Citizenship Behavior, OJ: Perception of Organizational

Justice, JB: Job Satisfaction, WS: Work Stress

3.2 Research Framework

In this study, teachers' perception of organizational justice in private universities is taken as independent variable, job satisfaction as mediator variable, work stress as moderator variable, and OCB as dependent variable to deeply explore the path relationship among variables. Based on the above research background and deficiencies, research motivation and purpose, and through literature discussion and analysis, this study proposes the following research framework (as shown in Figure 3.2).
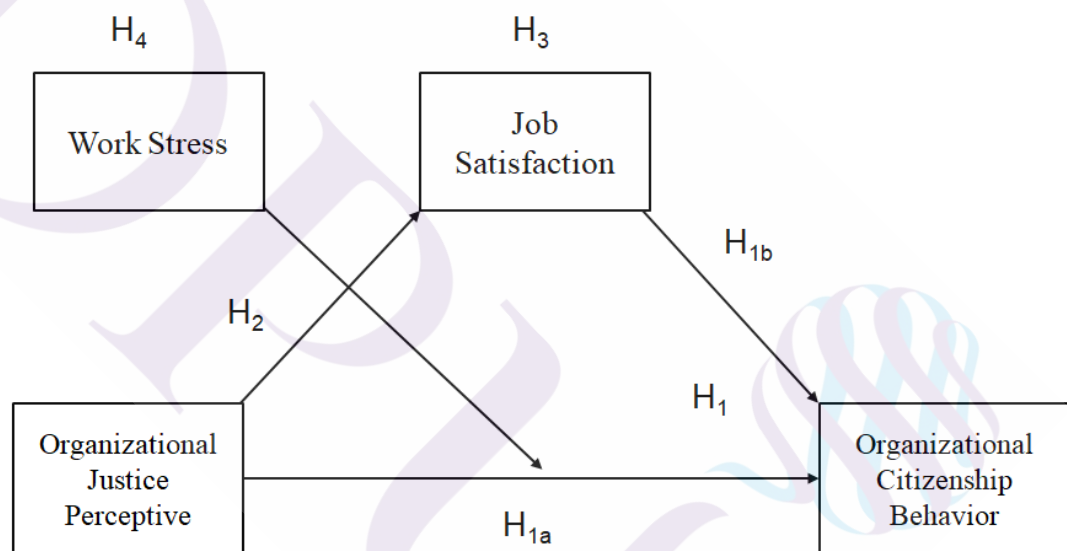
Figure 3.2 Research framework

Source: Cavanaugh et al. (2000); Bauwens et al. (2019); Lambert et al. (2019); Sawalha, Kathawala, & Magableh (2019)

As can be seen from the research framework in Figure 3.2, the connotation of variables in this study consists of four parts, which are the perception of organizational justice, job satisfaction, work stress and organizational citizenship behavior of teachers in private universities.

Perception of organizational justice. It includes three dimensions: distributive

justice, procedural justice and interactive justice. The empirical data on the perceived organizational justice perceptive of the teachers are collected by means of scale survey. Niehoff and Moorman (1993) organizational justice scale is used in this study.

Job satisfaction. It includes two dimensions: internal and external satisfaction. The empirical data of teachers' perception of job satisfaction are collected by means of scale survey. In this study, the Minnesota Satisfaction Questionnaire Short Form translated and revised by Zhang and Gu (2010) is selected as a tool to measure teachers' job satisfaction in private universities.

Work stress. It contains two dimensions: challenge stress and hindrance stress. By means of scale survey, the empirical data of teachers' work stress are collected. In this study, Cavanaugh et al. (2000) scale is used to measure teachers' work stress in private universities.

Organizational citizenship behavior. It includes five dimensions: identifying with schools, altruism toward colleagues, conscientiousness, interpersonal harmony and protecting school resources. By means of scale survey, the empirical data of the teachers' OCB are collected. In this study, Farh et al. (1997) Chinese OCB scale is selected as the measuring tool of teachers' OCB.

3.3 Research Hypothesis

According to the research framework and purpose, the following research hypotheses are proposed:

H_1： Organizational justice perceptive and job satisfaction of teachers in private universities have significant influence on their organizational citizenship behavior.

H$_{1a}$：Organizational justice perceptive of teachers in private universities has a significant influence on their organizational citizenship behavior.

H$_{1b}$：Job satisfaction of teachers in private universities has a significant impact on their organizational citizenship behavior.

H$_2$：Organizational justice perceptive of teachers in private universities has a significant influence on their job satisfaction.

H$_3$：Job satisfaction of teachers in private universities plays a mediating role between organizational justice perceptive and organizational citizenship behavior.

H$_4$：Work stress of teachers in private universities plays a moderating role between their organizational justice perceptive and organizational citizenship behavior.

3.4 Research Subject, Sampling Method and Questionnaire Distribution

This study takes teachers from private universities in mainland China as the parent group. "Private university", which is opened to the public by social organizations or individuals other than state institutions with non-state financial funds, means an institution of higher education with the conferment qualification of higher academic qualifications. As mentioned above, by the end of 2018, there are 484 private universities (265 independent colleges excluded) in mainland China with higher education qualification (Department of Development & Planning, Ministry of Education, the People's Republic of China, 2019).

The study is divided into two stages: pre-test and formal test.

Subjects in the pre-test. Teachers of a private college in Shandong province

are selected as test subjects. Wu (2008) has suggested that the number of pre-test samples should be 3-5 times of the number of items of the variable with the largest number of items in the questionnaire. In the preliminary questionnaire of this study, there are 20 items in the organizational justice perceptive scale, 18 items in job satisfaction scale, 11 items in work stress scale, and 20 items in OCB scale. In the pre-test stage, 200 paper questionnaires are distributed and 172 are recovered. After deducting invalid questionnaires such as incomplete answers or unclear marks, 158 valid questionnaires are collected, accounting for 79% of the valid questionnaires, which is in line with Wu (2008) 's recommendations. After pre-test, the reliability, validity and specific connotation of each dimension of the scale are obtained to form a formal questionnaire. See Table 3.1 for the statistics of pre-test sample distribution.

Table 3.1 Statistics of pre-test samples distribution

Background variables	Items	People No	Percentage (%)
Gender	Male	60	38.0
	Female	98	62.0
Age	Aged 30 and below	51	32.3
	Aged from 31- 40	78	49.4
	Aged from 41- 50	20	12.7
	Aged 51 and above	9	5.7
Service year	5 years and below	77	48.7
	6-10 years	45	28.5
	11-20 years	35	22.2
	More than 20 years	1	0.6
Education level	Junior college degree	5	3.2
	Bachelor degree	51	32.3
	Master degree	94	59.5
	Doctor degree	8	5.1

Source: This table is from the researcher.

Subjects in the formal testing. The method of convenience sampling is used to select some samples from the mother group. Since the researcher myself has been working in private universities in mainland China for a long time, I have established relatively stable working relations and friendship with the administrators and teachers of some private universities. Besides, some senior students work in other private universities. Through these friends working in private universities, teachers from 10 private universities are selected as subjects in this study. The 10 private universities are from Shandong, Shanxi, Hebei, Zhejiang and Yunnan. Among them, there are 7 undergraduate universities and 3 junior colleges, which basically cover the private universities in different provinces and levels in the Eastern (Shandong, Zhejiang), Western (Shanxi), Southern (Yunnan) and Northern (Hebei) in mainland China. These universities have different types of sponsors and different school-running orientations; or in the provincial capital city, or as the only private university in its location; all of them are representative in terms of geographical location or educational level.

Located in the provincial capital city, YC is the private undergraduate university with the largest enrollment scale in mainland China. It has the only national famous teacher and national teaching team among private universities in mainland China, and it is representative in terms of area, student-scale and development quality. DK, DY and WF are the only private universities in their cities, which are strongly supported by the local government and representative at the regional and school-running levels. NS is a private enterprise running school, and it is also the first group of private undergraduate universities in Shandong province, which is representative in development history, sponsor type and school running level. WK is one of the few private undergraduate universities in mainland China with the

participation of local government, and it is also the only private university in the city where it is located. It is representative of the region and the type of sponsor. Located in the provincial capital city, ZS is a private undergraduate university co-founded by party and government organizations, and one of the five private universities with master degree enrollment qualification in China. It is a representative of the region, the type of sponsor and the quality of development. SX and YJ, both located in provincial capitals, are the first batch of application-oriented private undergraduate model universities in their provinces respectively, which are representative in terms of regional and educational level. HC is also located in the provincial capital city, which is good at higher education of media and art, and has obvious characteristics of running school. It is one of the five private undergraduate universities with postgraduate enrollment qualification in China, and it is representative in terms of area, type of running school and development quality.

See Table 3.2 information of private universities located sample teachers in formal questionnaires.

Table 3.2 Information of private universities loacated teachers in formal questionnaire

School Code	Province or City	School Characteristics
YC	Jinan, Shandong	Located in the provincial capital city, the largest private undergraduate university with the national teaching team and national teaching team
DK	Dezhou, Shandong	Private colleges founded by individuals
DY	Dongying, Shandong	Private college strongly supported by the local municipal government
WF	Weihai, Shandong	One of the few private colleges for foreign affairs in mainland China
NS	Yantai, Shandong	Private undergraduate university founded by large private enterprise groups
WK	Weifang, Shandong	Private undergraduate university with government involvement
ZS	Zhejiang	Located in the provincial capital city, it is a private undergraduate university established by the party and government organs with the qualification of postgraduate enrollment
SX	Shanxi	Located in the provincial capital city, one of the first provincial application-oriented private undergraduate universities
YJ	Yunnan	Located in the provincial capital city, one of the provincial first batch of applied talents training model colleges
HC	Hebei	Located in the provincial capital city, one of the private undergraduate universities that mainly focus on media and art education and have the admission qualification for postgraduate students

Source: This table is from the researcher.

According to Nunnally (1967)'s suggestion on the sample size of the empirical study, the number of samples should be more than 10 times the number of items in the questionnaire, and the index of each potential variable will generally be more than three. The formal questionnaire for this study consists of 59 items, and a total of 1000 questionnaires (900 paper-based questionnaires and 100 e-questionnaires) are given out, which are in line with Nunnally (1967). In order to ensure the convenience and authenticity of the questionnaire, the friends contacted by each school are responsible for the distribution, supervision and recycling of the questionnaire.

A total of 920 formal questionnaires are collected in this study, with a recovery rate of 92%, among which 837 were valid. Distribution of teachers of different genders: 295 male teachers, accounting for 35.2%, and 542 female teachers, accounting for 64.8%. Teachers of different ages: 240 teachers aged 30 or below, accounting for 28.7%; 468 teachers aged 31-40, accounting for 55.9%; 107 teachers aged 41-50, accounting for 12.8%; 22 teachers aged 51 and above, accounting for 2.6%. Distribution of teachers with different years of service: 335 teachers with 5 years of service or less, accounting for 40.0%; from 6 to 10 years, 213 teachers, accounting for 25.4%; from 11 to 20 years, 264 teachers, accounting for 31.5%; there are 25 teachers over 20 years, accounting for 3.0%. Distribution of teachers with different education levels: 28 teachers with junior college education, accounting for 3.3%; 304 teachers with bachelor's degree, accounting for 36.3%; 481 teachers with master's degree, accounting for 57.5%; 24 teachers with doctor's degree, accounting for 2.9%. The distribution of teachers at different school levels: 557 teachers from private undergraduate universities, accounting for 66.5%; 280 teachers from private

colleges, accounting for 33.5%. The demographic distribution of the tested teachers basically reflects the overall development characteristics of the teaching staff in private universities in mainland China, such as more female teachers and less male teachers, more young teachers and less middle-aged teachers, relatively short working years, and shortage of highly educated talents. Taking Shandong province as an example, from 2014 to 2016, the age distribution of teachers in private universities: the proportion of teachers under 30 years old accounts for about 25%, that of teachers between 30 and 39 years old accounts for about 40%, and that of teachers between 40 and 50 years old accounts for about 15%. Educational background distribution: 2-3% of teachers with doctoral degrees (Shandong Department of Education, 2015, 2016, 2017). These characteristics are related to the relatively short development history of private universities in mainland China and the unstable teaching staff.

See Table 3.3 for background information of sample teachers in formal questionnaire.

Table 3.3 Background information of sample teachers in formal questionnaires

Background variables	Items	People No	Percentage (%)
Gender	Male	295	35.2
	Female	542	64.8
Age	Aged 30 and below	240	28.7
	Aged from 31 - 40	468	55.9
	Aged from 41 - 50	107	12.8
	Aged 51 and above	22	2.6
Service Year	5 years and below	335	40.0
	6-10 years	213	25.4
	11-20 years	264	31.5
	More than 20 years	25	3.0
Education level	Junior college degree	28	3.3
	Bachelor degree	304	36.3
	Master degree	481	57.5
	Doctor degree	24	2.9
School level	Undergraduate universities	557	66.5
	Junior colleges	280	33.5
Total		N=837	

Source: This table is from the researcher.

3.5 Research Instrument

Questionnaire Survey is uses as the main research method in this study. The contents of the questionnaire include background variables and four measuring instruments (scales): Teachers' organizational justice perceptive scale, Job satisfaction scale, Work stress scale and OCB scale. These four scales have been widely verified and their reliability and validity are stable and mature. See Appendix A Preliminary Questionnaire and Appendix B Formal Questionnaire.

3.5.1 Organizational justice perceptive scale

This scale is used to measure organizational justice perceptive of teachers in private universities in mainland China. In the literature review, Niehoff and Moorman (1993) scale is used internationally by many scholars when studying the perception of organizational justice. Some empirical studies, such as Terzi et al. (2017) and Ting (2016), used this scale to study middle school and elementary school teachers' organizational justice perceptive respectively. Wang (2009) and He (2010) translates and revises the scale in Chinese, and investigates and verifies various industries, job types and different types of enterprises in dozens of cities in mainland China, among which there are many knowledge-based enterprises and their employees. It is believed that there are many similarities between the organizational characteristics of primary and middle schools and knowledge-based enterprises and private universities in this study. Niehoff and Moorman (1993) scale is suitable for the purpose, culture and educational situation of this study. Therefore, Niehoff and Moorman (1993) scale is selected as tools to measure teachers' organizational justice perceptive. See Table 3.4.

Table 3.4 Teachers' organizational justice perceptive scale

Dimension	No	Items
Distributive justice	OJ1	My work schedule is fair.
	OJ2	I think that my leve1 of pay is fair.
	OJ3	I consider my work 1oad to be quite fair.
	OJ4	Overal1, the rewards I receive here are quite fair.
	OJ5	I fee1 that my job responsibilities are fair.
Procedural justice	OJ6	Job decisions are made by the general leader in an unbiased manner.
	OJ7	My genera1 manager makes sure that all employee concerns are heard before job decisions are made.
	OJ8	To make job decisions, my general leader collects accurate and complete information.
	OJ9	My general leader clarifies decisions and provides additional information when requested by employees.
	OJ10	All job decisions are applied consistently across all affected teachers.
	OJ11	Employees are allowed to challenge or appeal job decisions made by the general leader.
Interactional justice	OJ12	When decisions are made about my job, the genera1 leader treats me with kindness and consideration.
	OJ13	When decisions are made about my job, the general leader treats me with respect and dignity.
	OJ14	When decisions are made about my job, the genera1 leader is sensitive to my personal needs.
	OJ15	When decisions are made about my job, the genera1 leader deals with me in a truthful manner.
	OJ16	When decisions are made about my job, the genera1 leader shows concern for my rights as a teacher.
	OJ17	Concerning decisions made about my job, the genera1 leader discusses the implications of the decisions with me.
	OJ18	The general leader offers adequate justification for decisions made about my job.
	OJ19	When making decisions about my job, the genera1 leader offers explanations that make sense to me.
	OJ20	My general leader explains very clearly any decision made about my job.

Scale source: Niehoff & Moorman (1993).

Note: OJ: Organizational Justice.

3.5.2 Job satisfaction scale

This scale is used to measure teachers' job satisfaction in private universities in mainland China. As mentioned in the previous literature review, Short Form of the Minnesota Job Satisfaction Scale have been widely used by many scholars (e.g., Fatimah, Amiraa, & Halim, 2011; Rahman, Sulaiman, Nasir, & Omar, 2014) in various empirical studies. Seibert and Kraimer (2001), Rahman et al. (2014) use this scale to measure the mediating effect of Indonesian high school teachers' job satisfaction on self-efficacy and OCB. Zhang and Gu (2010) translate and revise the short Form of the Scale, and measure the knowledge employees of high-tech enterprises, which has a good reliability and validity. This study considers that the job nature and occupational characteristics of teachers in private universities are similar to those of middle schools and high-tech enterprises. Therefore, Minnesota Job Satisfacation Short Form translated and revised by Zhang and Gu (2010) is selected as a tool to measure teachers' job satisfacation in private universities. According to Weiss, Davis, England and Lofquist (1967), this study divides job satisfacation into two dimensions: intrinsic satisfaction and extrinsic satisfaction. Intrinsic satisfaction refers to the satisfaction teachers feel in the work itself, while extrinsic satisfaction refers to the satisfaction they feel through others or in the work environment. There were 18 items in the revised scale, including 8 items with internal satisfaction and 10 questions with external satisfaction. The Cronbach's alpha coefficient of the two dimensions was .647 and .911. See Table 3.5 for teachers' job satisfaction scale.

Table 3.5 Teachers' job satisfaction scale

Dimension	No	Items
Intrinsic satisfaction	JS1	I have the chance to try my own methods of doing the job.
	JS2	I feel respected for my work.
	JS3	I get the feeling of accomplishment from the job.
	JS4	I give full play to my abilities at work.
	JS5	I have the chance to do something that makes use of my abilities.
	JS6	I can use my professional knowledge and own judgment in work.
	JS7	I have the chance to do things for other people.
Extrinsic satisfaction	JS8	My job provides the way for steady employment.
	JS9	I feel satisfied with the way my co-workers get along with each other.
	JS10	This job providesme the chances for advancement.
	JS11	The school provides me with opportunities for professional development.
	JS12	I feel satisfied with my pay.
	JS13	I feel satisfied with the way school policies are put into practice.
	JS14	I feel satisfied with the competence of my supervisor in making decisions.
	JS15	I get the praise for doing a good job from my superiors.
	JS16	I get the praise for doing a good job from my colleagues.
	JS17	I feel satisfied with the way my superiors handles his/her workers.
	JS18	I feel satisfied with the working conditions.

Source: Zhang & Gu (2010).

Note: JS: Job Satisfaction.

3.5.3 Work stress scale

Work stress scale is used to measure teachers' work stress perception in private universities. Since the development of Challenge and Hindrance Work Stress Scale (Cavanaugh et al., 2000), there have been many empirical studies (e.g., Boswell et al., 2004; Wu et al., 2014) successively using this scale to measure work stress of university staff and employees in the context of Chinese culture. Therefore, Cavanaugh et al. (2000) scale adopted in this study has certain applicability and reliability. There are 11 items in the original scale, which are divided into two dimensions: challenge stress and hindrance stress. There are 6 items in challenge stress and 5 items in Hindrance stress. At that time, the Cronbach's alpha coefficients of the two dimensions were respectively .87 and .75, showing good internal consistency. All items are translated to Chinese from the original scale. After consulting many English scholars and experts in this research field, considering the convenience of the respondents' understanding, some items are simply expressed in terms of Chinese language culture and expression habits.

See Table 3.6 for details teachers' work stress.

Table 3.6 Teacher's work stress scale

Dimension	No	Items
Challenge stress	WS1	I feel pressure on the number of projects and/or assignments I have.
	WS2	I feel pressure on the amount of time I spend at work.
	WS3	I feel pressure on the volume of work that must be accomplished in the allotted time.
	WS4	I feel pressure on time I experience.
	WS5	I feel pressure on the amount of responsibility I have.
	WS6	I feel pressure on the scope of responsibility my position entails.
Hindrance stress	WS7	I feel pressure on the degree to which politics rather than performance affects organizational decisions.
	WS8	I feel pressure on the inability to clearly understand what is expected of me on the job.
	WS9	I feel pressure on the amount of red tape I need to go through to get my job done.
	WS10	I feel pressure on the lack of job security I have.
	WS11	I feel pressure on the degree to which my career seems.

Source: Cavanaugh et al. (2000).

Note: WS: Work Stress.

3.5.4 Organizational citizenship behavior scale

This scale is used to measure teachers' OCB in private universities in mainland China. OCB is related to culture (George & Jones, 1997). Due to different cultural situations, cognitive differences caused by people's cultural values will have a profound impact on the relationship between civic behaviors and other constructs (Farh et al., 1997). Based on this, some empirical researches (e.g. Snape, Chan &

Redman, 2006; Zhang & Luo, 2015) on OCB in China have adopted Farh et al. (1997) Chinese organizational citizenship scale. Cao, Long (2007) and Zhao (2013) have conducted the measurement of OCB for primary and secondary school teachers and university teachers respectively based on the scale, which provided preliminary verification of cultural and educational situational adaptability for the measurement of teachers' OCB in private universities in mainland China. Therefore, Farh et al. (1997) Chinese OCB scale is selected as the measurement tool of teachers' OCB in this study.

The original scale has a total of 20 items, including five dimensions: identification with the school, altruism toward colleagues, conscientiousness, interpersonal harmony, and protecting school resources. There are 4 items, 4 items, 5 items, 4 items, and 3 items respectively. Seven measuring items of interpersonal harmony and protecting school resources in the original scale are set in reverse. Interpersonal harmony directly ask "Uses illicit tactics to seek personal influence and gain with harmful effect on interpersonal harmony in the organization", "Uses position power to pursue selfish personal gain", "Takes credits, avoids blames, and fights fiercely for personal gain", "Often speaks ill of the supervisor or colleagues behind their backs", protecting the school resources directly ask "Conducts personal business on school time (e.g., trading stocks, shopping, going to barber shops)", "Uses school resources to do personal business (e.g., school phones, copy machines, computers, and cars)", "Views sick leave as benefit and makes excuse for taking sick leave". This may cause respondents to be unwilling to answer or not to answer truthfully, so this study modifies them to express positive questions. The items in the other three dimensions are directly translated from the original scale by referring to the Chinese translation of Hong and Li (2013) and Liu et al. (2017). See Table 3.7.

Table 3.7 Teachers' organizational citizenship behavior scale

Dimension	No	Item
Identification with the school	OB1	I am willing to stand up to protect the reputation of the school.
	OB2	I am eager to tell outsiders good news about the school and clarify their misunderstandings.
	OB3	I make constructive suggestions that can improve the operation of the company.
	OB4	I actively attend school meetings.
Altruism toward colleagues	OB5	I am willing to assist new colleagues to adjust to the work environment.
	OB6	I am willing to help colleagues solve work-related problems.
	OB7	I am willing to cover work assignments for colleagues when needed.
	OB8	I am willing to coordinate and communicate with colleagues.
Conscientiousness	OB9	I comply with school rules and procedures even when nobody watches and no evidence can be traced.
	OB10	I take my job seriously and rarely make mistakes.
	OB11	I do not mind taking on new or challenging assignments.
	OB12	I try hard to self-study to increase the quality of work outputs.
	OB13	I often arrive early and start to work immediately.
Interpersonal harmony	OB14	I don't use illicit tactics to seek personal influence and gain with harmful effect on interpersonal harmony in the organization.
	OB15	I don't use position power to pursue selfish personal gain.
	OB16	I don't take credits, avoids blames, and fights fiercely for personal gain.
	OB17	I don't often speak ill of the supervisor or colleagues behind their backs.
Protecting school resources	OB18	I don't conduct personal business on school time (e.g., trading stocks, shopping, going to barber shops).
	OB19	I don't use school resources to do personal business (e.g., school phones, copy machines, computers, and cars).
	OB20	I don't view sick leave as benefit and makes excuse for taking sick leave.

Scale source: Farh, Earley & Lin. (1997).

Note: OB: organizational citizenship behavior.

Five background variables including gender, age, years of service, education and school level are added in the questionnaire. Gender, 1 for male, 2 for female. There are four options for age, years of service and education level, represented by 1, 2, 3, 4 respectively. Subjects are required to fill in according to their actual situation. The school level is divided into undergraduate college and junior college.

The scoring method of all questions in this questionnaire except the background variables is Likert five-point scale design, which is self-evaluated by private college teachers. Each number represents the degree of conformity of the questions to the description of teachers' actual work (1= strongly disagree, 2= disagree, 3= general, 4= agree, 5= strongly agree), and 1-5 points are given respectively. The higher the score of the tested teachers on OCB scale, the more outstanding the performance of OCB. The higher the score on perceived organizational justice scale, the higher the degree of school organizational justice. The higher the score on job satisfaction scale, the higher the degree of job satisfaction. The higher the score on work stress scale, the stronger the degree of work stress.

3.6 Data Analysis

3.6.1 Analytical methods

In this study, SPSS statistical software is used to conduct project analysis, exploratory analysis and reliability analysis on the measurement items of the pre-test questionnaires, and the topic selection and screening questions are carried out to determine the formal questionnaire.

Items analysis. The first is Descriptive Statistical test. It shows the basic properties of the items by descriptive statistical data of various items in the scale.

Three tendencies, namely, too high and too low average, small standard deviation and severe skewness, are used to represent the insufficient discrimination of the test items (Qiu, 2010). The second is Comparison of extreme group. Independent Sample t-test or F test is used to observe and judge the significant differences among items in each scale. The third is Correlation test. Calculate the coefficients of Item-total Correlation ahd Corrected Item-deleted Correlation for each scale, and observe whether the correlation coefficient is significant and above the moderate correlation degree. The fourth is Homogeneity test, including commonality and factor loading. Commonity indicates that the item can explain the variation of common traits or attributes. The items with lower commonality have less homogeneity with the scale. Factor loading represents the degree of relationship between items and factors. The lower the factor loading is, the less homogenous it is with the scale (Wu, 2008). This is used as a reference for deleting items.

Exploratory Factor Analysis (EFA used as abbr. of "Exploratory Factor Analysis" hereafter). By EFA, the construct validity of each variable is assessed, the organizational potential constructs of the scale are verified, and the relevance of the questionnaire content is tested. This is another important basis for determining the formal questionnaire. In this study, SPSS statistical software is used to conduct EFA for each scale by Principal Components Analysis and Varimax to seek the maximum possibility of factor separation. According to the reasonable standard determination index of the factor loading by Tabachnica and Fidell (2006), when the factor loading is at .45, the amount of variation that can be explained is 20%, which is an ordinary state. When the factor loading is .55, the explanatory variation is 30%, which is a good state. When the factor loading is .63, the amount of variation that can be

explained is 40%, which is a very good state. When the factor loading is .71, the explanatory variation is 50%, which is an excellent state. Based on this, the absolute value of factor loading (λ) is controlled to .45 during EFA in this study.

Reliability analysis. The purpose of reliability analysis is to analyze the measurement quality of questionnaire items, which is also the basis for selecting and deleting items. The Cronbach's alpha is the most commonly used internal consistency reliability index. The higher the reliability of the scale, the more stable and consistent the scale is. According to the research experience of DeVellis (1991), the Cronbach's alpha coefficient was the minimum acceptable value between .65 and .70, good between .70 and .80, fairly good between .80 and .90, and very good above .90. The Cronbach's alpha coefficient in this study is used to test the internal consistency of each scale and its dimensions.

In this study, data normality test, reliability and validity analysis and intraclass correlation coefficient test are carried out successively for the recovered formal questionnaires, and then the research hypothesis are verified through correlation analysis, regression analysis and Process statistical analysis.

Normality test. In this study, the data collected from formal and valid questionnaires are tested for normality. When the absolute value of skewness of the variable is less than 2 and kurtosis is less than 7, it can be determined that the sample data has one-way normality (Curran, West, & Finch, 1996). When the Mardia coefficient is less than $p(p+2)$(p represents the number of observed variables), the sample data multivariate normality can be recognized (Bollen, 1989).

Confirmatory factor analysis (CFA used as abbr. of "Confirmatory Factor Analysis" hereafter). AMOS software is used to conduct CFA of the formal

questionnaires, to determine the theoretical model fit of various variables in this study, assess the reliability and validity of formal questionnaires, and ensure the stability and reliability of the characteristics measured in the formal questionnaires.

Intraclass Correlation Coefficient (ICC used as abbr. of "Intraclass Correlation Coefficient" hereafter) detection. ICC reflects the inter-group variability or intra-group homogeneity of the measured variables, i.e. the inter-group effect. If ICC value is too large, that is to say, there is a significant difference in variation within the representative group, which may cause overestimation of coefficient and underestimation of standard error, multi-level statistical analysis must be considered (Cohen, 1988; Bliese, 2000). In this study, the teachers in the formal questionnaire are from 10 private universities, and the inter-school differences may affect the further regression analysis. Therefore, in this study, ICC is firstly tested to determine whether intra-group differences of each variable are significant, laying a statistical foundation for regression analysis.

Correlation analysis. Pearson product-moemngt correlation analysis is used to determine whether the correlation coefficients among the variables of organizational justice perceptive, job satisfaction, work stress and OCB are significant, providing statistical basis for regression analysis.

Regression analysis. Linear regression and hierarchical regression are used to determine whether the causal relationship between variables is significant or not, and to verify the hypothesis of this study.

3.6.2 Pre-test results and analysis

SPSS statistical software is used to conduct item analysis, EFA and reliability analysis of the pre-test questionnaire, select and delect items, and then form the

formal questionnaire in the study.

3.6.2.1 Pre-test analysis of teachers' organizational justice perceptive scale

a. Item Analysis

The results of descriptive statistics show that the mean, standard deviation, skewness and kurtosis of all items in organizational justice perceptive scale are basically up to standard. For further assessing the discrimination of each item, this study divides 158 subjects into two groups accodings to the score in the whole questionnaire, that is, the highest score group and lowest scoregroup and take 27% of the highest and the lowest scores respectively for comparison of extreme group. It is found that Critical Ratio (CR) values of t-test reach significant level, which indicates the degree of discrimination of each item is clear according to Qiu (2010). The correlation test shows that the coefficient of item-total correlation is higher than .4, which is significant, and the coefficient of corrected item-total correlation is also higher than .4, indicating the above moderate correlation degree between each item and the scale (Wu, 2008). The Principal Axis Method is used to fix number of factors as 1 to obtain the commonality and factor loading. The results show that the commonalities of all the items reach .3 (Qiu, 2010) and factor loadings of all the items reach .45 (Bentler & Wu, 1993; Tabachnica & Fidell, 2006), indicating that the observed variables (items) have convergent validity. Therefore, 20 items of teachers' organizational justice perceptive pre-test scale are retained for EFA. The items analysis results of teachers' perceived organizational justice pre-test scale are shown in Table 3.8.

Table 3.8 Summary of items analysis results of teachers' perceived organizational justice pre-test scale

Item	Comparison of extreme group	Item-total correlation		Homogeneity test			Number of non-standard indicators	Yes or no
	CR	Item-total correlation	Corrected item-total correlation	Alpha (if Item deleted)	Commonality	Factor loading		
Criterion		≥.400	≥.400		≥.300	≥.450		
OJ1	-9.696***	.774**	.649	.870	.483	.695	0	Yes
OJ2	-7.760***	.807**	.685	.862	.548	.740	0	Yes
OJ3	-9.348***	.866**	.783	.839	.725	.852	0	Yes
OJ4	-10.587***	.866**	.774	.840	.707	.841	0	Yes
OJ5	-10.826***	.798**	.682	.862	.540	.735	0	Yes
OJ6	-10.822***	.815**	.715	.866	.584	.764	0	Yes
OJ7	-12.027***	.785**	.683	.871	.532	.729	0	Yes
OJ8	-11.906***	.838**	.753	.859	.663	.815	0	Yes
OJ9	-12.796***	.818**	.735	.863	.626	.791	0	Yes
OJ10	-11.934***	.801**	.700	.868	.566	.752	0	Yes
OJ11	-9.925***	.741**	.630	.879	.450	.671	0	Yes
OJ12	-10.645***	.716**	.628	.917	.427	.654	0	Yes
OJ13	-10.081***	.782**	.714	.910	.547	.740	0	Yes
OJ14	-9.961***	.811**	.750	.908	.616	.785	0	Yes
OJ15	-10.033***	.767**	.704	.911	.544	.737	0	Yes
OJ16	-11.035***	.819**	.763	.907	.647	.805	0	Yes
OJ17	-9.591***	.781**	.712	.911	.561	.749	0	Yes
OJ18	-8.844***	.773**	.711	.911	.555	.745	0	Yes
OJ19	-11.130***	.835**	.782	.906	.676	.822	0	Yes
OJ20	-10.650***	.745**	.673	.913	.503	.709	0	Yes

Source: This table is from the researcher.

Note: N=158 **$p<$ .01 ***$p<$ .001. OJ : Organizational Justice.

b. Exploratory factor analysis and reliability analysis

Organizational justice perceptive scale in this study is derived from the maturity scale, which is divided into three dimensions. Therefore, the number of factors is directly fixed as 3 when using SPSS for EFA. KMO and Bartlett's test results show that KMO is .932, and the coefficient is in an excellent state according to KMO statistic determination principle of Kaiser (1974). Bartlett's test of sphericity shows that the variables are correlated (χ^2=2126.264, df=190, p<.001), so it is suitable for factor analysis. KMO and Bartlett's tests of organizational justice perceptive scale are shown in Table 3.9.

Table 3.9 KMO and Bartlett's test of teachers' organizational justice perceptive scale

Kaiser-Meyet-Olkin measure of sampling adequacy		.932
Bartlett's test of sphericity	Approx. Chi-square	2126.264
	df	190
	Sig.	.000

Source: This table is from the researcher.

The first EFA finds that the characteristic values of factor 1, factor 2 and factor 3 are 10.170, 1.890 and 1.008, respectively, and the explanatory variables are 25.684%, 19.982 and 19.674%, respectively, and the cumulative explanatory variables of three factors are 65.340%. However, items 10, 11 and 13 are implemented on two factors at the same time, and the factor loading is greater than .45. According to Tabachnica and Fidell (2006), the three items have explanatory power on two factors. The position of item 12 in the original scale is changed, indicating that the discriminating validity of the item is insufficient. According to Chen, Cherng, Chen and Liu (2011), the item that goes off the topic should be deleted.

Therefore, items 11, 10, 13, 12 and 5 are deleted successively in this study, and after several factor analyses, the factor loadings of the three factors reach more than .5, with obvious discriminant validity, and the cumulative explanatory variance increase to 69.004%. In line with the criteria recommended by Hair, Black, Babin and Anderson (2009), the factor loading should be more than .5 and the cumulative explained variation should be more than 60%.

According to the results of factor analysis, the reliability of organizational justice perceptive pre-test scale is analyzed. The results show that Cronbach's alpha coefficient in three dimensions of distributive justice, procedural justice and interactive justice is respectively .862, .862 and .910, and the overall Cronbach's alpha coefficient of the scale is .929, all greater than .8. According to the judgment criteria of DeVellis (1991), the reliability of organizational justice perceptive pre-test scale is fairly good. The EFA and reliability analysis results of teachers' organizational justice perceptive pre-test scale are shown in Table 3.10.

Table 3.10 Summary of EFA and reliability analysis results of teachers' organizational justice perceptive pre-test scale

Dimension	Items No	Item	Factor 1	Factor 2	Factor 3	Cronbach's α of dimension	Overall Cronbach's α
Distributive justice	4	OJ1		.640		.862	
		OJ2		.858			
		OJ3		.828			
		OJ4		.815			
Procedural justice	4	OJ6			.806	.862	
		OJ7			.822		
		OJ8			.629		
		OJ9			.560		.929
Interactive justice	7	OJ14	.739			.910	
		OJ15	.709				
		OJ16	.784				
		OJ17	.773				
		OJ18	.769				
		OJ19	.769				
		OJ20	.659				
Explanatory Variance (%)			30.244	21.229	17.531		
Cumulative Explanatory Variance (%)				69.004			

Source: This table is from the researcher.

Note: OJ : Organizational Justice.

c. Determine formal questionnaire

According to the results of the above item analysis, factor analysis and reliability analysis, the formal scale of teachers' organizational justice perceptive is determined as three dimensions, with a total of 15 items. After re-encoding each item,

distributive justice is 1-4 (4 items), procedural justice is 5-8 (4 items), and interactive justice is 9-15 (7 items). See Appendix B for details.

    3.6.2.2 Pre-test analysis of teachers' job satisfaction scale

    a. Item analysis

    The results of descriptive statistics show that the mean, standard deviation, skewness and kurtosis of all items basically reach the standard, indicating that the discrimination degree of each item is sufficient. According to t-test results, the Critical Ratio value (CR) of each item is significant, and the statistics of detection correlation and homogeneity test are basically up to standard. Only the communalities of items 7 and 8 fail to reach the index. However, in order to maintain the integrity of the original scale, the two items are temporarily retained, and then determined whether to retain or delete depending on the results of EFA.

    The item analysis results of teachers' job satisfaction pre-test scale are shown in Table 3.11.

Table 3.11 Summary of items analysis results of teachers' job satisfaction pre-test scale

| Item | Comparison of extreme group | Detection Correlations | | Homogeneity test | | | Under Standard | Yes or no |
	CR	Item-total correlation	Corrected item-total correlation	Alpha (if Item deleted)	Communalities	Factor loading		
Criterion		≥.400	≥.400		≥.300	≥.450		
JS1	-6.372***	.642**	.520	.849	.313	.559	0	Yes
JS2	-8.982***	.789**	.692	.829	.586	.765	0	Yes
JS3	-10.235***	.789**	.693	.828	.585	.765	0	Yes
JS4	-9.555***	.796**	.716	.826	.640	.800	0	Yes
JS5	-7.573***	.750**	.662	.833	.541	.736	0	Yes
JS6	-7.952***	.715**	.620	.838	.433	.658	0	Yes
JS7	-5.731***	.575**	.455	.855	.221	.470	1	Yes
JS8	-5.921***	.587**	.454	.856	.225	.474	1	Yes
JS9	11.946***	.797**	.728	.896	.568	.753	0	Yes
JS10	-9.651***	.771**	.703	.897	.532	.729	0	Yes
JS11	-7.575***	.720**	.641	.901	.450	.671	0	Yes
JS12	-9.397***	.739**	.644	.904	.438	.662	0	Yes
JS13	-8.946***	.766**	.697	.898	.514	.717	0	Yes
JS14	-10.195***	.791**	.736	.896	.603	.776	0	Yes
JS15	-8.526***	.680**	.610	.903	.449	.670	0	Yes
JS16	-9.567***	.732**	.675	.900	.529	.727	0	Yes
JS17	-7.941***	.722**	.661	.900	.511	.715	0	Yes
JS18	-8.067***	.745**	.679	.899	.520	.721	0	Yes

Source: This table is from the researcher.

Note: N=158 **$p < .01$ ***$p < .001$. JS: Job Satisfaction.

b. EFA and reliability analysis

The questionnaire of this study is derived from the maturity scale, which is divided into two dimensions. Therefore, when using SPSS statistical software to conduct EFA, the number of factors is directly set as 2. Since KMO value is .912, which is close to 1, and Chi-square value of Bartlett spherical test is 1650.116, which is significant, it is suitable for factor analysis. KMO and Bartlett tests of teachers' job satisfaction pre-test scale are shown in Table 3.12.

Table 3.12 KMO and Bartlett's test of teachers' job satisfaction pre-test scale

Kaiser-Meyet-Olkin measure of sampling adequacy		.912
	Approx. Chi-square	1650.116
Bartlett's test of sphericity	df	153
	Sig.	.000

Source: This table is from the researcher.

After the first EFA, it is found that items 2, 3, 4, 10, 15 and 16 fall on two factors respectively, and the factor loadinging are higher than .45. It is suggested that the item has explanatory power on both factors (Tabachnica & Fidell, 2006) and should be deleted. Therefore, items 16, 2, 5, 1, 3, 4 and 15 are deleted successively in this study, and after several factor analyses, the factor loading of each item reaches above .6, two factors can explain 61.308% of total variation. In line with the criteria recommended by Hair et al. (2009), the factor loading should be more than .5 and the cumulative explained variation should be more than 60%.

The specific reasons for deleting the items are as follows. Item 1"I have the chance to try my own methods of doing the job", item 4 "I give full play to my abilities at work", item 5 "I have the chance to do something that makes use of my

abilities" and item 6 "I can use my professional knowledge and own judgment in work" have the same meaning. At the same time, perhaps teachers are more concerned about whether they can give full play to their professional knowledge and ability. Item 2 "I feel respected for my work", item 3 "I get the feeling of accomplishment from the job", the meanings of the two questions are similar. Maybe the teachers in private universities do not have a deep understanding. Items 15 "I get the praise for doing a good job from my superiors" and item 16 "I get the praise for doing a good job from my colleagues" have similar meanings to items 9 and 17.

Based on the above results of items analysis and factors analysis, the reliability of teachers' job satisfaction pre-test scale is analyzed. The results show that the Cronbach's alpha coefficients of internal satisfaction and external satisfaction are respectively .724 and .896, and the overall Cronbach's alpha coefficient of the scale is .890, both above .7. According to the previous research experience of DeVellis (1991), the reliability of job satisfaction pre-test scale in this study is relatively good.

The EFA and reliability analysis results of teachers' job satisfaction pre-test scale are shown in Table 3.13.

Table 3.13 Summary of EFA and reliability analysis results of teachers' job satisfaction pre-test scale

Dimension	Items No	Item	Factor 1	Factor 2	Cronbach's α of dimension	Overall Cronbach's α
Internal Satisfaction	3	JS6		.751	.724	
		JS7		.743		
		JS8		.824		
External Satisfaction	8	JS9	.749		.896	.890
		JS10	.658			
		JS11	.607			
		JS12	.808			
		JS13	.826			
		JS14	.765			
		JS17	.644			
		JS18	.760			
Explanatory Variance (%)			39.678	21.630		
Cumulative Explanatory Variance (%)					61.308	

Source: This table is from the researcher.

Note: JS : Job Satisfaction.

c. Determine formal questionnaire

According to the above results of item analysis, factor analysis and reliability analysis, the formal scale of teachers' job satisfaction in this study is determined as two dimensions, with a total of 11 items. After re-encoding each item, inner satisfaction is 1-3 items (3 items), and external satisfaction is 4-11 items (8 items). See Appendix B for details.

3.6.2.3 Pre-test analysis of teachers' work stress scale

a. Item analysis

The results of descriptive statistics show that the mean, standard deviation, skewness and kurtosis of all items reach the standard. According to comparison of extreme group, all the Critical Ratio (CR) values are significant, indicating that there is an obvious degree of discrimination for each item (Qiu, 2010). The correlation test shows that the coefficients of Item-total correlation are higher than .4, which is significant, and the coefficients of Corrected item-total correlation are also higher than .4, indicating that the correlation degree between each item and the total scale is above medium (Wu, 2008). The commonalities of the items are higher than .3 (Qiu, 2010), and the factor loadings are higher than .45 (Tabachnica & Fidell, 2006), which reach the statistical requirements. Therefore, all of the items of teachers' work stress pre-test scale can be retained temporarily for factor analysis.

The analysis results of teachers' work stress pre-test scale are shown in Table 3.14.

Table 3.14 Summary of items analysis results of teachers' work stress pre-test scale

Item	Comparison of extreme group	Item-total correlation		Homogeneity test			Number of non-standard indicators	Yes or no
	CR	Item-total correlation	Corrected item-total correlation	Alpha if Item deleted	Commonality	Factor loading		
Criterion		≥.400	≥.400		≥.300	≥.450		
WS1	-7.916***	.779**	.678	.837	.563	.751	0	Yes
WS2	-7.941***	.786**	.681	.836	.563	.750	0	Yes
WS3	-10.546***	.795**	.692	.834	.583	.763	0	Yes
WS4	-6.793***	.700**	.549	.860	.348	.590	0	Yes Yes
WS5	-10.147***	.788**	.672	.837	.530	.728	0	Yes
WS6	-8.499***	.785**	.679	.836	.532	.729	0	Yes
WS7	-8.627***	.666**	.522	.821	.334	.578	0	Yes
WS8	-9.293***	.805**	.680	.778	.588	.767	0	Yes
WS9	-11.619***	.789**	.640	.790	.514	.717	0	Yes
WS10	-8.318***	.836**	.708	.769	.633	.796	0	Yes
WS11	-5.765***	.748**	.586	.805	.422	.649	0	Yes

Source: This table is from the researcher.

Note: N=158 **$p<$ .01 ***$p<$ .001 WS: Work Stress.

      b. EFA and reliability analysis

Teachers' work stress scale is derived from a maturity scale, which is divided into two dimensions. Therefore, when conducting EFA with SPSS statistical software, the number of factors is directly fixed as 2. It is found that KMO value is .854, which is in good condition according to KMO statistic determination principle of Kaiser (1974). Bartlett's test of sphericity shows that the variables are correlated with each other (χ^2=823.654, df=55, p<.001), which is suitable for factor analysis.

See Table 3.15 for details.

Table 3.15 KMO and Bartlett's test of teachers' work stress pre-test scale

Kaiser-Meyet-Olkin measure of sampling adequacy		.867
	Approx. Chi-square	823.654
Bartlett's test of sphericity	df	55
	Sig.	.000

Source: This table is from the researcher.

After the first EFA, it is found that factor 1 and factor 2 can explain 34.921% and 27.109% of the variation, respectively, and the cumulative variation of the two factors can explain 62.030%. However, item 9, "I feel pressure on the amount of red tape I need to go through to get my job done", falls on two factors at the same time, indicating that the item has insufficient discriminating validity and is difficult to classify. The item is changed from hindence stress dimension in the original scale to spanning two dimensions. The reason may be that due to the characteristics of higher education, which is "loosely connected system (Weick, 1983), full-time teachers in universities have certain autonomy in teaching and research, with their main focus on teaching and less attention to administrative affairs. Therefore, after deleting item 9 and conducting EFA again, the total explanatory variation of the two factors to variables is increased to 62.664%. In line with the criteria recommended by Hair et al. (2009), the factor loading should be more than .5 and the cumulative explained variation should be more than 60%.

Based on the above results of items and factor analysis, the reliability of teachers' work stress pre-test scale is analyzed. The results show that the Cronbach's alpha values of the two dimensions of challenge stress and hindence stress are

respectively .863 and .792, and the overall Cronbach's alpha coefficient of the scale is .855, both above .8. According to the previous research experience of DeVellis (1991), the Cronbach's alpha coefficient is between .80 and .90, indicating that the reliability is fairly good. Therefore, the reliability of teachers' work stress pre-test scale is fairly good. The EFA and reliability analysis results of teachers' work stress pre-test scale are shown in Table 3.16.

Table 3.16 Summary of EFA and reliability analysis results of teachers' work stress pre-test scale

Dimension	Items No	Item	Factor 1	Factor 2	Cronbach's α of dimension	Overall Cronbach's α
Challenge stress	6	WS1	.830		.863	
		WS2	.814			
		WS3	.794			
		WS4	.626			
		WS5	.720			
		WS6	.719			.855
Hindence stress	4	WS7		.525	.792	
		WS8		.767		
		WS10		.861		
		WS11		.827		
Explanatory Variance (%)			37.047	25.616		
Cumulative Explanatory Variance (%)			62.664			

Source: This table is from the researcher.

Note: WS: Work Stress.

c. Determine formal questionnaire

According to the above results of the items and factor analysis, the items

numbers of work stress scale are changed from 11 to 10. After re-encoding each item,

challenge stress is from 1-6 items (6 items) and hindence stress is from 7-10 items (4

items). See Appendix B for details.

3.6.2.4 Pre-test analysis of teachers' organizational citizenship behavior scale

a. Item analysis

According to the results of descriptive statistics, the mean, standard deviation,

skewness and kurtosis of all items in the scale basically reach the standard, indicating

that the degree of discrimination of each item is sufficient. The t-test results of the

Comparison of extreme group show that the Critical Ratio (CR) values are significant,

and the statistics of correlation test and homogeneity test are up to the standard.

Therefore, all 20 items will be retained for the time being and further selected or

deleted according to the results of EFA.

The items analysis results of teachers' OCB scale are shown in Table 3.17.

Table 3.17 Summary of item analysis results of teachers' organizational citizenship behavior pre-test scale

Item	Comparison of extreme group	Item-total correlation		Homogeneity test			Number of non-standard indicators	Yes or no
	CR	Item-total correlation	Corrected item-total correlation	Alpha (if Item deleted)	Commonality	Factor loading		
Criterion		≥.400	≥.400		≥.300	≥.450		
OB1	-3.693***	.839**	.719	.820	.662	.813	0	Yes
OB2	-4.184***	.852**	.744	.812	.704	.839	0	Yes
OB3	-4.749***	.828**	.690	.830	.539	.734	0	Yes
OB4	-5.788***	.858**	.705	.832	.578	.760	0	Yes
OB5	-3.954***	.878**	.761	.863	.675	.822	0	Yes
OB6	-4.433***	.904**	.827	.836	.806	.898	0	Yes
OB7	-4.805***	.808**	.672	.892	.510	.714	0	Yes
OB8	-4.491***	.887**	.795	.847	.733	.856	0	Yes
OB9	-4.355***	.810**	.689	.813	.596	.772	0	Yes
OB10	-2.341***	.807**	.687	.814	.584	.764	0	Yes
OB11	-5.940***	.742**	.598	.837	.423	.650	0	Yes
OB12	-3.450***	.832**	.725	.804	.639	.799	0	Yes
OB13	-3.127***	.770**	.617	.834	.455	.674	0	Yes
OB14	-2.938***	.904**	.821	.843	.785	.886	0	Yes
OB15	-3.453***	.917**	.838	.836	.833	.913	0	Yes
OB16	-2.913***	.885**	.787	.856	.704	.839	0	Yes
OB17	-4.783***	.772**	.629	.911	.433	.658	0	Yes
OB18	-4.908***	.867**	.731	.910	.587	.766	0	Yes
OB19	-3.382***	.940**	.864	.798	.906	.952	0	Yes
OB20	-3.781***	.930**	.819	.843	.783	.885	0	Yes

Source: This table is from the researcher.

Note: N=158 **$p< .01$ ***$p< .001$ OB : Organizational Citizenship Behavior.

b. EFA and reliability analysis

The OCB questionnaire in this study is derived from a mature scale, which is divided into five dimensions. Therefore, when using SPSS statistical software to conduct EFA, the number of factors is directly fixed as 5. It ia found that KMO value is .915, close to 1, and Chi-square value of Bartlett's test of sphericity is 2495.898, reaching significant level, so it is suitable for factor analysis.

See Table 3.18 for details.

Table 3.18 KMO and Bartlett's test of teachers' organizational citizenship behavior pre-test scale

Kaiser-Meyet-Olkin measure of sampling adequacy		.915
Bartlett's test of sphericity	Approx. Chi-square	2495.898
	df	190
	Sig.	.000

Source: This table is from the researcher.

According to the first EFA, the amount of variation explained by five factors is 18.382%, 17.672%, 15.933%, 12.214% and 11.985%, respectively. However, items 9 and 17 change the dimension position in the original scale, and items 10, 19 and 20 fall on two factors. Therefore, items 9, 10 and 17 are deleted and then several factor analyses are conducted. The factor loading of each item is more than .6, and the cumulative explanatory variation of five factors is 78.824%. In line with the standards recommended by Hair et al. (2009), the factor loading should be more than .5 and the cumulative explained variation should be more than 60%.

The specific reasons for deleting the items are as follows. Item 9 "I comply with school rules and procedures even when nobody watches and no evidence can be

traced", probably due to the characteristics of higher education, which is the "loosely connected system" (Weick, 1983), university teachers have certain autonomy in teaching and scientific research and do not need to be on duty. Therefore, they do not have a profound understanding on school administrative rules and regulations. Item 10 "I take my job seriously and rarely make mistakes", perhaps teaching and scientific research work is different from administrative work and cannot be measured by a single right or wrong standard, so this item may be not suitable for university teachers' work nature. Item 17 "I don't often speak ill of the supervisor or colleagues behind their backs", it is the respondents's self-evaluation, which may not be objective, leading to the distortion of the results.

Based on the above results of items and factor analysis, this study conducts a reliability analysis of teachers' OCB pre-test scale. The results show that the Cronbach's alpha coefficients of identification with the school, altruism toward colleagues, conscientiousness, interpersonal harmony and protecting school resources are respectively .861, .891, .779, .911 and .897. The overall Cronbach's alpha coefficient of the scale is .939, all above .7. According to the previous research experience of DeVellis (1991), teachers' OCB pre-test scale presented in this paper has a relatively good reliability.

The results of EFA and reliability analysis of teachers' OCB pre-test scale are shown in Table 3.19.

Table 3.19 Summary of EFA and reliability analysis results of teachers' organizational citizenship behavior pre-test scale

Dimension	Items No	Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Cronbach's α of dimension	Overall Cronbach's α
Identification with the school	4	OB1	.815					.861	
		OB2	.785						
		OB3	.743						
		OB4	.723						
Altruism toward colleagues	4	OB5			.667			.891	
		OB6			.798				
		OB7			.840				
		OB8			.644				
Conscientiousness	3	OB11					.706	.779	.941
		OB12					.629		
		OB13					.743		
Interpersonal harmony	3	OB14				.680		.911	
		OB15				.754			
		OB16				.609			
Protecting school resources	3	OB18		.779				.897	
		OB19		.848					
		OB20		.761					
Explanatory Variance (%)			18.465	17.200	16.953	13.909	12.298		
Cumulative Explanatory Variance (%)					78.824				

Source: This table is from the researcher.

Note: OB stands for Organizational Citizenship Behavior.

c. Determine formal questionnaire

According to the above results of items and factor analysis, the formal

questionnaire of teachers' OCB for this study includes 17 items from 5 dimensions. After re-encoding each item, identification with the school is from1-4 items (4 items); altruism toward colleagues is from 5-8 items (4 items); conscientiousness is from 9-11 items (3 items); interpersonal harmony is from 12-14 items (3 items); protecting school resources is from 15-17 items (3 items). See Appendix B for details.

3.6.3 Normality test of the formal questionnaires

According to the results of normality test, the skewness value of the formal questionnaire of teachers' organizational justice perceptive is between -.455~-.061, and kurtosis value is between .022- .454. The absolute value of skewness is less than 2 and the absolute value of kurtosis is less than 7 (Curran et al., 1996); Mardia coefficient is 80.148, far less than 15(15+2) (Bollen, 1989). Meet the requirement of data normality.

The skewness value of the formal questionnaire of teachers' job satisfaction is between -.737~ .013, and kurtosis value is between -.023~1.391. The absolute value of skewness is less than 2 and the absolute value of kurtosis is less than 7 (Curran et al., 1996). Mardia coefficient is 35.951, far less than 11(11+2). Meet the requirement of data normality.

The skewness value of the formal questionnaire of teachers' work stress is between -.441~ -.082, and kurtosis value is between -.558~ -.032. The absolute value of skewness is less than 2 and the absolute value of kurtosis is less than 7 (Curran et al., 1996). Mardia coefficient is 32.264, far less than 10(10+2). Meet the requirement of data normality.

The skewness value of the formal questionnaire of teachers' OCB is between -1.581~ -.224, and kurtosis value is between -.061~3.448. The absolute value of

skewness is less than 2 and the absolute value of kurtosis is less than 7 (Curran et al., 1996). Mardia coefficient is 178.653, less than 17(17+2). Meet the requirement of data normality.

The normality test results of the formal questionnaire are shown in Table 3.20.

Table 3.20 Summary of the formal questionnaire normality test

Variable	Item No	Skewness	Kurtosis	Mardia
Criterion		<2	<7	$<p(p+2)$
Organizational Justice Perceptive	15	-.061~-.455	-.454~.022	80.148
Job Satisfaction	11	-.737~.013	-.023~1.391	35.951
Work Stress	10	-.441~-.082	-.558~-.032	32.264
OCB	17	-1.581~-.224	-.061~3.448	178.653

Source: This table is from the researcher.

Note: P : the number of observed variables.

3.6.4 Reliability and validity analysis of the formal questionnaires

AMOS software is used in this study to conduct CFA of the formal questionnaire, to determine the theoretical model fit of various variables in this study, to test the reliability and validity of the formal questionnaires, and to ensure the stability and reliability of the characteristics measured in the questionnaires.

The indicators commonly used by scholars to test the fitness of conceptual models are Absolute fit indices, Inoremental fit indices and Parsimonious fit indices. Absolute fit indices include: Chi-square (χ^2), Chi-squared (χ^2/df), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Standardized Root Mean Square Residual (SRMR). Inoremental fit indices include: Normed Fit Index (NFI), Comparative Fit Index (CFI), Relative Fit Index (RFI), Incremental Fit Index (IFI).

Parsimonious fit indices include: Parsimony-adjusted Normed Fit Index (PNFI) and Parsimony of Fit Index (PNFI).

3.6.4.1 Reliability and validity analysis of teachers' organizational justice perceptive formal questionnaires

Based on CFA results of organizational justice perceptive questionnaire, this study compares the model fit data with the model fit indicators of Chen and Wang (2010). The results show that AGFI does not reach above .9. According to the judgment criteria of Zhao, Xue, and Yang (2015), the data above .9 indicates a very good fit, while between .8- .9 indicates a good fit. χ^2 and χ^2/df are not in agreement. However, according to the views of Chen and Wang (2010), Chi-square value is affected by sample size, and it is better to test multiple indicators simultaneously for comprehensive evaluation when evaluating model fit. Therefore, Absolute fit indices, Inoremental fit indices and Parsimonious fit indices of the research model basically meet the requirements.

See Table 3.21 Summary of teachers' organizational justice perceptive model fit.

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Table 3.21 Summary of teachers' organizational justice perceptive model fit

Item	Fit Index	Standard	Test Data	Model fit
	χ^2	$p > .05$	$p = .000$	NO
	χ^2/df	< 3	5.580	Approx.
	GFI	$> .9$	.923	OK
Absolute fit indices	AGFI	$> .9$	.894	Approx.
	RMR	$< .08$	.026	OK
	SRMR	$< .08$	.074	OK
	NFI	$> .9$	.952	OK
	CFI	$> .9$	.960	OK
Inoremental fit indices	RFI	$> .9$	.942	OK
	IFI	$> .9$	.960	OK
	PNFI	$> .5$	.789	OK
Parsimonious fit indices	PGFI	$> .5$	.669	OK

Source: This table is from the researcher.

According to the results of CFA, the non-standardized regression weighting coefficients estimated in the measurement model of organizational justice perceptive are all significant, indicating that the intrinsic quality of the model is quite good (Chen& Wang, 2010).

The standardized regression weighting coefficient is standardized factor loading or standardized path coefficient, which represents the direct effect value of potential variables. According to the views of Hair, Hult, Ringle and Sarstedt (2014), if the standardized factor loading is greater than .7, it can be considered that the index reliability of the questionnaire items is quite good. However, some scholars believe that it is not easy to achieve in practice. Hulland (1999) believes that if the

standardized factor loading is greater than .5, it is acceptable. According to Bentler and Wu (1993), the factor loading of observed variables must be significant, and the factor loading is greater than .45, which means that the observed variables have convergent validity.

Composite Reliability (CR used as abbr. of "Composite Reliability" hereafter) is also known as constructed reliability, which is used to measure the internal consistency of the items in the questionnaire. The higher the CR value, the higher the consistency of the items in the questionnaire. Bagozzi and Yi (1988) believe that CR value should be greater than .6, indicating good construction reliability.

Average Variance Extracted (AVE used as abbr. of "Average Variance Extracted" hereafter) shows the average variation explanatory power of items towards the dimensions. Fornell and Larcker (1981) have believed that the AVE value is generally greater than .5, indicating the discriminant validity between dimensions.

In the structural model of organizational justice perceptive in this study, the standardized factor loadings of 15 measurement indicators are all above .7 and all are significant, CR values are above .8 and AVE values are all greater than .6, indicating that the index reliability, composite reliability or construct reliability and discriminant validity of the questionnaire dimensions and items are all up to the ideal state.

The reliability and validity analysis results of teachers' organizational justice perceptive questionnaire are shown in Table 3.22.

Table 3.22 Summary of reliability and validity analysis of teachers' organizational justice perceptive formal questionnaire

Dimension	No	Standardized factor loading	CR	AVE
Distributive justice	OJ1	.745	.873	.633
	OJ2	.796		
	OJ3	.830		
	OJ4	.808		
Procedural justice	OJ5	.777	.902	.697
	OJ6	.856		
	OJ7	.870		
	OJ8	.833		
Interactive justice	OJ9	.820	.939	.687
	OJ10	.842		
	OJ11	.853		
	OJ12	.851		
	OJ13	.761		
	OJ14	.848		
	OJ15	.822		

Source: This table is from the researcher.

Note: OJ: Organizational justice perceptions

3.6.4.2 Reliability and validity of analysis job satisfaction formal questionnaire

Based on CFA results of job satisfaction questionnaire, this study compares the model fit data of with model fit indicators of Chen and Wang (2010). The results show that GFI, AGFI and RFI do not reach above .9, but between .8- .9, indicating good adaptability (Zhao et al., 2015). χ^2 and χ^2/df are not in agreement. However, according to the views of Chen and Wang (2010), Chi-square value is affected by sample size, and it is better to test multiple indicators simultaneously to conduct comprehensive evaluation when evaluating model fit. Therefore, absolute fit indices,

inoremental fit indices and parsimonious fit indices of the research model can be accepted. See Table 3.23.

Table 3.23 Summary of teachers' job satisfaction model fit

Item	Fit Index	Standard	Test Data	Model fit
Absolute fit indices	χ^2	p>.05	p=.000	NO
	χ^2/df	＜3	11.018	NO
	GFI	＞.9	.899	Approx.
	AGFI	＞.9	.845	Approx.
	RMR	＜.08	.045	OK
Inoremental fit indices	NFI	＞.9	.903	OK
	CFI	＞.9	.910	OK
	RFI	＞.9	.875	Approx.
	IFI	＞.9	.911	OK
Parsimonious fit indices	PNFI	＞.5	.706	OK
	PGFI	＞.5	.586	OK

Source: This table is from the researcher.

According to the results of CFA, the non-standardized regression weighting coefficients estimated in the measurement model of job satisfaction are all significant, indicating that the intrinsic quality of the model is quite good (Chen& Wang, 2010). The standardized factor loadings of 11 measurement indexes are all above .6, and all of them are significant, with CR values above .6. According to the viewpoints of Hulland (1999), Bagozzi and Yi (1988), the dimensions and items of the questionnaire have good index reliability and construct reliability. The AVE values of the two

dimensions are .431 and .581. Fornell and Larcker (1981) believes that AVE value greater than .5 is an ideal value, but Hair et al. (2009) suggestes that loadings value ideally greater than .7 and .6 is acceptable; and as AVE is the sum average of loading square (SMC), above .36 is acceptable. Therefore, the discriminant validity of the questionnaire conforms to the theoretical requirements. The reliability and validity analysis results of teachers' job satisfaction in this study are shown in Table 3.24.

Table 3.24 Summary of reliability and validity analysis of teachers' job satisfaction formal questionnaire

Dimension	No	Standardized factor loading	CR	AVE
Intrinsic satisfaction	JS1	.704	.694	.431
	JS2	.642		
	JS3	.620		
Extrinsic satisfaction	JS4	.768	.917	.581
	JS5	.751		
	JS6	.738		
	JS7	.761		
	JS8	.819		
	JS9	.778		
	JS10	.682		
	JS11	.792		

Source: This table is from the researcher.

Note:　JS: Job Satisfaction.

　　　　3.6.4.3 Reliability and validity analysis of teachers' work stress formal questionnaire

　　　　Based on the results of CFA, this study compares the model fit data with the model fit indicators of Chen and Wang (2010). The results show that GFI, AGFI, NFI,

CFI, RFI and IFI do not reach above .9. According to the judgment criteria of Zhao et al. (2015), these indicators are between .8 and .9, indicating a good adaptability. χ^2 and χ^2/df are not in agreement. However, according to the views of Chen and Wang (2010), Chi-square value is affected by sample size, and multiple indicators should be tested simultaneously to conduct comprehensive evaluation when evaluating model fit. Therefore, absolute fit indices, inoremental fit indices and parsimonious fit indices of the work stress model in this study are acceptable. The test results of teachers' work stress model fit are shown in Table 3.25.

Table 3.25 Summary of teachers' work stress model fit

Item	Fit Index	Standard	Test Data	Model fit
Absolute fit indices	χ^2	p>.05	P=.000	NO
	χ^2/df	<3	15.613	NO
	GFI	>.9	.876	Approx.
	AGFI	>.9	.799	Approx.
	RMR	<.08	.065	OK
Inoremental fit indices	NFI	>.9	.859	Approx.
	CFI	>.9	.867	Approx.
	RFI	>.9	.814	Approx.
	IFI	>.9	.867	Approx.
Parsimonious fit indices	PNFI	>.5	.649	OK
	PGFI	>.5	.655	OK

Source: This table is from the researcher.

According to the results of CFA, the non-standardized regression weighting coefficients estimated in the work stress measurement model are all significant,

indicating that the intrinsic quality of the model is quite good (Chen & Wang, 2010). The standardized factor loadings of the 10 measurement indexes are all above .7, and all of them are significant, with CR values above .7. According to the viewpoints of Hair et al. (2014), Bagozzi and Yi (1988), it is indicated that the index reliability of the questionnaire dimensions and items is quite good, and it has good construct reliability. The AVE values of the two dimensions are .528 and .477, respectively. According to the viewpoint of Hair et al. (2009), AVE values above .36 are acceptable. Therefore, the discriminant validity of the questionnaire conforms to the theoretical requirements. The reliability and validity analysis results of this questionnaire are shown in Table 3.26.

Table 3.26 Summary of reliability and validity analysis of teachers' work stress formal questionnaire

Dimension	No	Standardized factor loading	CR	AVE
Challenge stress	WS1	.785	.870	.528
	WS2	.790		
	WS3	.771		
	WS4	.652		
	WS5	.697		
	WS6	.650		
Hindrance stress	WS7	.566	.781	.477
	WS8	.588		
	WS9	.810		
	WS10	.766		

Source: This table is from the researcher.

Note: WS: Work Stress.

3.6.4.4 Reliability and validity analysis of teachers' organizational citizenship behavior formal questionnaire

Based on the results of CFA, this study compares the test data of model fit with the model fit indicators of Chen and Wang (2010). The results show that AGFI is not above .9, but between .8-.9, indicating a good adaptability (Zhao et al., 2015). Chi-squared and Chi-squared/df are not in agreement. However, according to the views of Chen kuanyu and wang zhenghua (2010), Chi-square value is easily affected by sample size, so it is better to test multiple indicators simultaneously to conduct comprehensive evaluation when evaluating model fit. Therefore, the absolute fit indices, inoremental fit indices and parsimonious fit indices of the model can be accepted.

The evaluation results of teachers' organizational citizenship behavior model fit are shown in table 3.27.

Table 3.27 Summary of teachers' organizational citizenship behavior model fit

Item	Fit Index	Standard	Test Data	Model fit
	χ^2	p>.05	p=.000	NO
	χ^2/df	<3	5.770	Approx.
Absolute fit indices	GFI	>.9	.916	OK
	AGFI	>.9	.882	Approx.
	RMR	<.08	.025	OK
	NFI	>.9	.929	OK
Inoremental fit indices	CFI	>.9	.940	OK
	RFI	>.9	.912	OK
	IFI	>.9	.941	OK
Parsimonious fit indices	PNFI	>.5	.745	OK
	PGFI	>.5	.653	OK

Source: This table is from the researcher.

The results of CFA show that the non-standardized regression weighting coefficients estimated in the measurement OCB model are all significant, indicating that the intrinsic quality of the model is quite good (Chen & Wang, 2010). The standardized factor loadings of 17 measurement indexes are all above .6, and all are significant, with CR values above .7. According to the viewpoints of Hulland (1999), Bagozzi and Yi (1988), the dimensions and items of the questionnaire have acceptable index reliability and good construct reliability. The AVE values of the five dimensions are between .443 and .709. According to the advice of Hair et al. (2009), loadings value is ideally greater than .7 and above .6 is acceptable, while as AVE is the sum average of loading square (SMC), above .36 is acceptable. Therefore, the discriminant

validity of the questionnaire conforms to the theoretical requirements. See Table 3.28.

Table 3.28 Summary of reliability and validity analysis of teachers' organizational citizenship behavior formal questionnaire

Dimension	No	Standardized factor loading	CR	AVE
Identification with the school	OB1	.802	.836	.564
	OB2	.874		
	OB3	.635		
	OB4	.668		
Altruism toward colleagues	OB5	.860	.899	.691
	OB6	.863		
	OB7	.763		
	OB8	.835		
Conscientiousness	OB9	.656	.705	.443
	OB10	.701		
	OB11	.639		
Interpersonal harmony	OB12	.834	.880	.709
	OB13	.900		
	OB14	.789		
Protecting school resources	OB15	.791	.845	.646
	OB16	.843		
	OB17	.776		

Source: This table is from the researcher.

Note: OB: Organizational Citizenship Behavior

3.6.5 Intraclass correlation coefficient test

Intraclass Correlation Coefficient, also known as ICC (ICC used as abbr. of "Intraclass Correlation Coefficient" hereafter) reflects the inter-group variability or

homogeneity of the measured variable, i.e. the inter-group effect. ICC value is between 0 and 1. 0 means untrusted, 1 means completely trusted. The larger the ICC value, the greater the difference between groups. When the ICC value is very small, it means that there is no significant difference between groups and the influence of multi-level structure can be ignored by traditional methods. Otherwise, it means that the difference between groups cannot be ignored and a multilevel linear modeling (or hierarchical linear modeling) must be built (Roberts, 2002). Yu (2006) believes that the method of aggregation is adopted when intra-level variation is greater than .5. In this study, the ICC value of organizational justice perceptive, job satisfaction, work stress and organizational citizenship behavior is respectively .121, .169, .062, .082, lower than. 5. That is to say, about 12.1%, 16.9%, 6.2% and 8.2% of the differences in organizational justice perception, job satisfaction, work pressure and organizational citizenship behavior of teachers in 10 private universities are caused by inter-school differences. Therefore, homogeneity within groups does not constitute a problem for further regression analysis.

Chapter 4

RESULTS OF STUDY

This chapter presents the analysis results one by one according to the research motivation, purpose, problem and hypothesis. Through descriptive statistics, this paper analyzes the current situation of teachers' perceptions of organizational justice perceptive, job satisfaction, work stress and OCB in private universities. Pearson product-moment correlation and linear model analysis are used to explore the correlation degree and causal relationship among variables. By means of hierarchical regression and process statistical analysis, the mediating and moderating effects of this study are verified.

4.1 Current Situation of Teachers' Organizational Justice Perceptive, Job Satisfaction, Work Stress and Organizational Citizenship Behavior in Private Universities

Through descriptive statistical analysis, this study analyzes and interprets the scores of the formal questionnaire dimensions and items, so as to understand the current situation of teachers in private universities in the perception of organizational justice, job satisfaction, work stress and organizational citizenship behavior.

4.1.1 Current situation of teachers' perception of organizational justice in private universities

The teachers' organizational justice perceptive in private universities is above the medium level, and interactional justice perceptive > procedural justice

perceptive > distributive justice perceptive. It shows that teachers in private universities have relatively good perceptions of interactive justice and the least ideal perceptions of distributive justice. The reason may be that, under the influence of traditional Chinese values, teachers in private universities pay more attention to the fairness of results and whether individuals are concerned and respected, and their awareness of participating in the decision-making process is not strong enough. The average and standard deviation of teachers' perceptions of organizational justice in private universities are shown in Table 4.1. In this study, the organizational justice perceptive questionnaire is a five-point scale with an average value of 3, and the average score of organizational justice perceptive and each dimension is above the mean value. Among them, the average score of interactive justice is the highest (3.531), and the average score of distributive justice is the lowest (3.242). There is little difference between the average score of procedural justice and the overall justice.

Table 4.1 Summary of the mean and standard deviation of teachers' perception of organizational justice and each dimension

Variable and dimension	No of Items	Mean	Standard deviation
Organizational Justice Perceptive	15	3.425	.715
Interactional Justice	7	3.531	.768
Procedural Justice	4	3.422	.847
Interactive Justice	4	3.242	.804

Source: This table is from the researcher.

Furthermore, the mean and standard deviation of each item are analyzed. The results show that in the dimension of distributive justice, item 1 "My work schedule is fair" has the highest score (3.488), item 2 "I think that my leve1 of pay is

fair y" has the lowest score (2.995), and item 3 "I consider my work load to be quite fair" has the lower score (3.237) than the mean of this dimension. It indicates that teachers in private universities pay more attention to salary and treatment, but they have the lowest perception of fairness in this respect. They think that the school does not reflect fairness in the distribution of workload. In the procedural justice dimension, item 5 "Job decisions are made by the general leader in an unbiased manner" has the highest score (3.479), item 7 "To make job decisions, my general leader collects accurate and complete information" has the lowest score (3.381), and item 8 "My general leader clarifies decisions and provides additional information when requested by employees" has the lower score (3.407) than the mean of this dimension. It indicates that teachers do not have an ideal fairness perception of democratic participation in decision-making process. In interactive justice dimension, the highest score is item 10 "When decisions are made about my job, the general manager deals with me in a truthful manner" (3.612). Item 12, "Concerning decisions made about my job, the general leader discusses the implications of the decisions with me" score the lowest (3.458). The score of item 11 (3.473) "When decisions are made about my job, the general leader shows concern for my rights as an employee", is lower than the average of this dimension.

4.1.2 Current situation of teachers' job satisfaction in private universities

The overall job satisfaction of teachers in private universities is above the medium level, and the internal satisfaction is higher than the external satisfaction. It reflects that teachers in private universities feel a higher degree of satisfaction from their work, but feel a lower degree of satisfaction from others or environment at work. This indicates that the policies and systems of the developing private universities are

not perfect, and there is still a gap between the material and spiritual incentive factors such as development and promotion opportunities provided by the schools and the needs of teachers. The mean and standard deviation of teachers' job satisfaction and various dimensions in private universities are shown in table 4.2. The job satisfaction questionnaire is a five-point scale with an average value of 3. The average scores of job satisfaction and all dimensions are above the mean value. The score of internal satisfaction is 3.988 and external satisfaction is 3.237.

Table 4.2 Summary of the mean and standard deviation of teachers' job satisfaction and each dimension

Variable and dimension	No of items	Mean	Standard deviation
Job Satisfaction	11	3.442	.658
Internal Satisfaction	3	3.988	.582
External Satisfaction	8	3.237	.786

Source: This table is from the researcher.

Furthermore, the mean and standard deviation of each item are analyzed. The results show that in the dimension of inner satisfaction, item 1 "I can use my professional knowledge and own judgment in work" scored lower (3.857), while item 3 "My job provides the way for steady employment" scores higher (4.106). For external dimension, item 7 "I feel satisfied with my pay" scores lowest (2.812). Item 11 "I feel satisfied with the working conditions" highest score (3.372). Item 4 "I feel satisfied with the way my co-workers get along with each other" and item 8 "I feel satisfied with the way school policies are put into practice" score lower than the average of the dimension (3.063).

4.1.3 Current situation of teachers' work stress in private universities

The overall work stress perceived by teachers in private universities is above the medium level, and the challenge stress is higher than the hindence stress.This is probably related to the development stage of private universities in mainland China. At present, private universities in mainland China are in a rising stage of development. In terms of discipline construction and professional development, teachers are given new tasks and challenges. Compared with public universities, private universities have a higher ratio of students to teachers. From 2016 to 2017, the ratios of students to teachers in national universities (including public and private universities) are 16.9% and 16.8% respectively, but the ratios of students to teachers in private universities are 19.9% and 19.8% respectively (Department of Development & Planning, Ministry of Education, the People's Republic of China, 2017, 2018). The ratio of students to teachers in private universities is 3 percentage points higher than that in national universities. There are various types of students, including full-time students and students who study by self-study. At the same time, private universities teachers not only undertake teaching, scientific research and administrative work, but also need to complete the task of school enrollment. Therefore, on the whole, teachers in private universities have a large workload and complex and diverse work tasks. The mean and standard deviation of teachers' work stress and various dimensions in private universities are shown in Table 4.3. The work stress questionnaire is a five-point scale with an average value of 3. The average score of work stress and its dimensions is above the mean value. The score is 3.382 for challenge stress and 3.337 for hindence stress.

Table 4.3 Summary of the mean and standard deviation of teachers' work stress and each dimension

Variable and dimension	No of items	Mean	Standard deviation
Work Stress	10	3.364	.599
Challenge Stress	6	3.382	.662
Hindence Stress	4	3.337	.699

Source: This table is from the researcher.

Furthermore, the mean and standard deviation of each item are analyzed. The results showed that in the dimension of challenge stress, item 1 "I feel pressure on the amount of time I spend at work" scores the highest (3.548), while item 4 "I feel pressure on time I experience" scores the lowest (3.113). This shows that teachers feel a great amount of work tasks. In the hindence stress dimension, item 10, "I feel pressure on the degree to which my career seems" scores the highest (3.557), while item 8 "I feel pressure on the inability to clearly understand what is expected of me on the job" scores the lowest (2.991). It shows that teachers can understand the task clearly, but they are worried about their future career development.

4.1.4 Current situation of private universities teachers' organizational citizenship behavior

Teachers of private universities generally have a high evaluation on their OCB performance, and interpersonal harmony > Protecting school resources > Altruism toward colleagues > Identification with the school > Conscientiousness. This shows that teachers in private universities, as members of the school organization, are willing to display behaviors that are beneficial to the school and colleagues, but their sense of identity and belonging to the school is still to be strengthened, and their enthusiasm and innovative behaviors in work are not enough, which will play a key

role in the improvement of the school organizational efficiency. The mean and standard deviation of teachers' organizational citizenship behavior in private universities are shown in Table 4.4. The OCB questionnaire is a five-point scale with an average of 3, and the average score of OCB and all dimensions is above 4. The average scores of five dimensions are: interpersonal harmony (4.375), protecting school resources (4.343), altruism toward colleagues (4.261), identification with the school (4.058), and conscientiousness (4.025).

Table 4.4 Summary of the mean and standard deviation of teachers' organizational citizenship behavior and each dimension

Variable and dimension	No of items	Mean	Standard deviation
Organizational Citizenship Behavior	17	4.206	.511
Interpersonal harmony	3	4.375	.623
Protecting school resources	3	4.343	.637
Altruism toward colleagues	4	4.261	.613
Identification with the school	4	4.058	.642
Conscientiousness	3	4.025	.602

Source: This table is from the researcher.

Furthermore, the mean and standard deviation of each item are analyzed. The results show that in the dimension of identification with the school, item 3 "I make constructive suggestions that can improve the operation of the company" scores the lowest (3.813), while item 1 "I am willing to stand up to protect the reputation of the school" scores the highest (4.255). It indicates that the willingness and behavior of private college teachers to actively participate in school decision-making is not ideal. In the dimension of altruism toward colleagues, item 7 "I am willing to cover work assignments for colleagues when needed" scores the lowest (4.173), while item 8 "I

am willing to coordinate and communicate with colleagues" scores the highest (4.313). This indicates that the willingness of teachers to unite and cooperate is relatively high. As for the dimension of Conscientiousness, the score of item 9 "I do not mind taking on new or challenging assignments" is relatively low (3.937), while the score of item 10 "I try hard to self-study to increase the quality of work outputs" is relatively high (4.169). It indicates that teachers have a strong willingness to develop themselves, but the psychological construction of the courage to accept new tasks and challenges still needs to be improved. In the dimension of interpersonal harmony, item 12 "I don't use illicit tactics to seek personal influence and gain with harmful effect on interpersonal harmony in the organization" scores the highest (4.391), while item 14 "I don't take credits, avoids blames, and fights fiercely for personal gain" scores lower (4.346). In the dimension of protecting school resources, item 16 "I don't use school resources to do personal business (e.g., school phones, copy machines, computers, and cars)" received a low score (4.284), while item 17 "I don't view sick leave as benefit and makes excuse for taking sick leave" received a high score (4.450). This indicates that teachers' collective consciousness of maintaining school harmony is relatively good.

4.2 Influence of Teachers' Organizational Justice Perceptive, Job Satisfaction and Work Stress on Organizational Citizenship Behavior in Private Universities

4.2.1 Correlation analysis among variables

In order to understand and analyze the relationship among the variables in the framework of this study, Pearson product-moment correlation analysis is used in this study to measure whether the correlation coefficient among variables is

significant or not, so as to provide statistical basis for   further regression analysis.

4.2.1.1 Correlation analysis of organizational justice perceptive and organizational citizenship behavior

Pearson product-moment correlation analysis results are shown in Table 4.26. Distributive justice [r(835)=.372, $p<.001$], procedural justice [r(835)=.390, $p <.001$], and interactive justice [r(835)=.423, $p<.001$] have significant positive correlation with identification with the school of organizational citizenship behavior. Distributive justice [r(835)=.246, $p<.001$], procedural justice [r(835)=.255, $p<.001$], and interactive justice [r(835)=.315, $p<.001$] have significant positive correlation with altruism toward colleagues of organizational citizenship behavior. Distributive justice [r(835)=.313, $p<.001$], procedural justice [r(835)=.338, $p<.001$], and interactive justice [r(835)=.374, $p<.001$] have significant positive correlation with conscientiousness of organizational citizenship behavior. Distributive justice [r(835)=.130, $p<.001$], procedural justice [r(835)=.129, $p<.001$], and interactive justice [r(835)=.187, $p <.001$] have significant positive correlation with interpersonal harmony of organizational citizenship behavior. Distributive justice [r(835)=.191, $p <.001$], procedural justice [r(835)=.218, $p <.001$], and interactive justice [r(835)=.257, $p<.001$] have significant positive correlation with protecting school resources of organizational citizenship behavior.

Table 4.5 Correlation matrix of organizational justice perceptive and organizational citizenship behavior

	1	2	3	4	5	6	7
1.Distributive justice	-						
2.Procedural justice	.663***	-					
3.Interactive justice	.598***	.801***	-				
4.Identification with the school	.372***	.390***	.423***	-			
5.Altruism toward colleagues	.246***	.255***	.315***	.661***	-		
6.Conscientiousness	.313***	.338***	.374***	.558***	.608***	-	
7.Interpersonal harmony	.130***	.129***	.187***	.490***	.657***	.566***	-
8.Protecting school resources	.191***	.218***	.257***	.483***	.572***	.565***	.696***

Source: This table is from the researcher.

Note：N = 837 ***$p < .001$

4.2.1.2 Correlation analysis of perceived organizational justice and job satisfaction

Pearson product-moment correlation analysis results are shown in table 4.27. Distributive justice [$r(835)=.344$, $p<.001$], procedural justice [$r(835)=.422$, $p<.001$], and interactive justice [$r(835)=.444$, $p<.001$] have significant positive correlation with intrinsic satisfaction of job satisfaction. Distributive justice [$r(835)=.721$, $p<.001$], procedural justice [$r(835)=.692$, $p<.001$], and interactive justice [$r(835)=.707$, $p<.001$] have significant positive correlation with extrinsic satisfaction of job satisfaction.

Table 4.6 Correlation matrix of perceived organizational justice and job satisfaction

	1	2	3	4
1. Distributive justice	-			
2.Procedural justice	.663***	-		
3.Interactive justice	.598***	.801***	-	
4.Intrinsic satisfaction	.344***	.422***	.444***	-
5.Extrinsic satisfaction	.721***	.692***	.707***	.452***

Source: This table is from the researcher.

Note：N = 837 ***$p < .001$

4.2.1.3 Correlation analysis of job satisfaction and organizational citizenship behavior

Pearson product-moment correlation analysis results are shown in table 4.28. Internal satisfaction [r(835)=368, $p<.001$] and external satisfaction [r(835)=.418, $p<.001$] are significantly positively correlated with identification with the school of organizational citizenship behavior. Internal satisfaction [r(835)=368, $p<.001$] and external satisfaction [r(835)=.255, $p<.001$] are significantly positively correlated with altruism toward colleagues of organizational citizenship behavior. Internal satisfaction [r(835)=.355, $p<.001$] and external satisfaction [r(835)=.350, $p<.001$] are significantly positively correlated with conscientiousness of organizational citizenship behavior. Internal satisfaction [r(835)=.321, $p<.001$] and external satisfaction [r(835)=.196, $p<.001$] have significant positive correlation with interpersonal harmony of organizational citizenship behavior. Internal satisfaction [r(835)=.338, $p<.001$] and external satisfaction [r(835)=.196, $p<.001$] are significantly positively correlated with protecting school resources of organizational citizenship behavior.

Table 4.7 Correlation matrix of job satisfaction and organizational citizenship behavior

	1	2	3	4	5	6
1.Internal satisfaction	-					
2.External satisfaction	.452***	-				
3.Identification with the school	.368***	.418***	-			
4.Altruism toward colleagues	.386***	.255***	.661***	-		
5.Conscientiousness	.355***	.350***	.558***	.608***	-	
6.Interpersonal harmony	.321***	.107***	.490***	.657***	.566***	-
7.Protecting school resources	.338***	.196***	.483***	.572***	.565***	.696***

Source: This table is from the researcher.

Note：N = 837 ***$p< .001$

4.2.1.4 Correlation analysis of perceived organizational justice, job satisfaction, work stress and organizational citizenship behavior

Pearson product-moment correlation analysis results are shown in table 4.29. Organizational justice perceptive [$r(835)=.796$, $p<.001$] shows a significant high positive correlation with job satisfaction. Job satisfaction [$r(835)=.395$, $p<.001$] has a significant positive correlation with organizational citizenship behavior. There is a significant positive correlation between organizational justice perceptive and organizational citizenship behavior [$r(835)=.394$, $p<.001$], and a significant negative correlation between organizational justice perception and work stress [$r(835)=-.254$, $p<.001$]. This result is consistent with the research results of Tziner and Sharoni (2014) on Arab employees. There is a significant negative correlation between job

satisfaction and work stress [r(835)=-.228, p<.001]. Work stress [r(835)=-.012, p=.737] has no significant correlation with organizational citizenship behavior.

Table 4.8 Correlation matrix of organizational justice perceptive, work stress, job satisfaction and organizational citizenship behavior

	1	2	3
1. Organizational Justice Perceptive	-		
2. Work Stress	-.254***	-	
3. Job Satisfaction	.796***	-.228***	-
4. Organizational Citizenship Behavior	.394***	-.012	.395***

Source: This table is from the researcher.

Note：N = 837 ***p< .001

4.2.2 Linear model analysis

To test the causal relationship among variables, this study test whether there is a significant causal relationship among perceived organizational justice, job satisfaction, work stress and organizational citizenship behavior through regression analysis.

4.2.2.1 Influence of organizational justice perceptive on organizational citizenship behavior

Regression analysis is used to examine the impact of organizational justice perceptive on organizational citizenship behavior. The results show that organizational justice perceptive has a positive and significant impact on organizational citizenship behavior (β=.394, p<.01), indicating that the higher the organizational justice perceptive of teachers in private universities, the better the performance of organizational citizenship behavior. The research results are consistent with those of Erkutlu (2011), Samudi et al. (2012), Bauwens et al. (2019), etc. This study further

verified the impact of different dimensions of organizational justice perceptive on organizational citizenship behavior. Distributive justice has a significant positive impact on organizational citizenship behavior (β=.130, $p<.01$), that is, the higher the perceptions of distributive justice are, the better the organizational citizenship behavior will be. Interactive justice also has a significant positive impact on organizational citizenship behavior (β=.315, $p<.001$). The higher the interactive justice perceptive, the better the performance of OCB. However, procedural justice (β=-.005, p=.931) has no significant impact on OCB. This result is basically consistent with Greenberg (1990), Wu and Chen (2017). As shown in Table 4.9.

Table 4.9 Summary of linear regression of organizational justice perceptive and organizational citizenship behavior

Dependent variable	organizational citizenship behavior		
Independent variable	B	SE B	β
Organizational justice Perceptive	.282***	.023	.394***
R^2	.156		
Adj R^2	.155		
F	153.850***		
df	(1,835)		
Distributive justice	.083**	.027	.130**
Procedural justice	-.003	.035	-.005
Interactive justice	.209***	.036	.315***
R^2	.162		
Adj R^2	.159		
F	53.492***		
df	(3,833)		

Source: This table is from the researcher.

Note：N = 837 **$p<.01$ ***$p<.001$

4.2.2.2 Influence of job satisfaction on organizational citizenship behavior

Regression analysis is used to examine the impact of job satisfaction on organizational citizenship behavior. The results show that job satisfaction has a significant positive impact on organizational citizenship behavior (β=.395, p <.01), indicating that the higher the job satisfaction of teachers in private universities, the better the performance of organizational citizenship. This is consistent with the research conclusion of Ajat et al. (2019) on vocational high school teachers. Furthermore, the impacts of different dimensions of job satisfaction on organizational citizenship behavior are verified. Considering the influence of other variables, internal satisfaction has a significant positive influence on organizational citizenship behavior (β=.357, p <.001). That is, the higher the degree of internal satisfaction is, the better the organizational citizenship behavior will be. External satisfaction also has a significant positive influence on organizational citizenship behavior (β=.173, p <.001). The higher the degree of external satisfaction is, the better the performance of organizational citizenship behavior will be. Therefore, both internal and external satisfaction have significant positive influence on teachers' organizational citizenship behavior, which is consistent with the conclusion of Zadeh, Esmaili and Tojari (2015). As shown in Table 4.10.

Table 4.10 Summary of linear regression of job satisfaction and organizational citizenship behavior

Dependent variable	Organizational citizenship behavior		
Independent variable	B	SE *B*	*β*
Job satisfaction	.306***	.025	.395***
R^2	.156		
Adj R^2	.155		
F	154.333***		
df	(1,798)		
Internal satisfaction	.313***	.030	.357***
External satisfaction	.113***	.022	.173***
R^2	.213		
Adj R^2	.212		
F	113.176***		
df	(2,834)		

Source: This table is from the researcher.

Note：N = 837   ***$p<.001$

4.2.2.3 Influence of perceived organizational justice on job satisfaction

Regression analysis is used to examine the impact of perceived organizational justice on job satisfaction. The results show that organizational justice perceptive has a positive and significant impact on job satisfaction ($β=.796$, $p<.01$), and the higher the level of organizational justice perceptive, the higher the level of job satisfaction. This conclusion is consistent with the research results of Zainalipour et al. (2010). The influence of different dimensions of organizational justice perceptive on job satisfaction is further verified. Distributive justice has a positive and significant influence on job satisfaction ($β=.390$, $p<.001$). The higher perception of distributive justice is, the higher the degree of job satisfaction is. Procedural justice has a positive

and significant influence on job satisfaction (β=.148, p<.001). The higher the perceived procedural justice is, the higher the degree of job satisfaction is. Interactive justice also has a positive and significant impact on job satisfaction (β=.369, p <.001). The better the interactive justice perceptive, the higher the degree of job satisfaction. The three dimensions of teachers' organizational justice perceptive have the greatest impact on job satisfaction, which are distributive justice, interactive justice and procedural justice in order. The result is basically consistent with the study of Robbins and Judge (2016). As shown in table 4.11.

Table 4.11 Summary of linear regression of organizational justice perceptive and job satisfaction

Dependent variable	Job satisfaction		
Independent variable	B	SE B	β
Organizational justice Perceptive	$.733^{***}$	.019	$.796^{***}$
R^2	.633		
Adj R^2	.633		
F	1443.107^{***}		
df	(1,835)		
Distributive justice	$.319^{***}$	.023	$.390^{***}$
Procedural justice	$.115^{***}$	.029	$.148^{***}$
Interactive justice	$.317^{***}$	.030	$.369^{***}$
R^2	.647		
Adj R^2	.645		
F	508.219^{***}		
df	(3,833)		

Source: This table is from the researcher.
Note：N = 837 $^{***}p$＜.001

4.3 Mediating Effect of Teachers' Perceptions of Organizational Justice, Job Satisfaction and Organizational Citizenship Behavior in Private Universities

Mediating effect analysis is used to analyze the relationship of three continuous variables X→M→Y, that is, whether X affects Y through M or whether M mediates the relationship between X and Y. Baron and Kenny (1986) hold that three conditions should be met for the verification of mediating effect: First, independent variables should be able to significantly predict dependent variables; Second, independent variables should be able to significantly predict mediating variables; Third, mediating variables should be able to significantly predict dependent variables. According to Qiu (2010), if any of the above direct effects are not significant, then the indirect effect cannot be established, i.e., there is no mediating effect. In this study, the mediating effect is tested by four-step method. In view of the doubts about the four-step method (Hayes, 2009) and the applicability of Sobel test in large samples (Yan & Zheng, 2017), on the basis of the four-step method, this study is retested by Sobel test.

Hierarchical regression is used to test the mediating effect of job satisfaction between organizational justice perceptive and organizational citizenship behavior. See Table 4.12. The results show that organizational justice perceptive has significant positive explanatory power on job satisfaction (β=.796, p<.001), and also has significant positive explanatory power on organizational citizenship behavior (β=.394, p<.001). Job satisfaction has a significant positive explanatory power on organizational citizenship behavior (β=.395, p<.001). When considering the explanatory power of organizational justice perceptive and job satisfaction on organizational citizenship behavior, the explanatory power of organizational justice

perceptive is still significant (β=.219, p <.001), and job satisfaction is still significant (β=.221, p <.001). According to the judgment criteria of Baron and Kenny (1986), the mediating effect is established, and job satisfaction partly mediates the relationship between organizational justice perceptive and organizational citizenship behavior.

Table 4.12 Regression analysis summary of the mediating effect of organizational justice perceive→job satisfaction→organizational citizenship behavior

	Job satisfaction	Organizational citizenship behavior		
	Model 1	Model 2	Model 3	Model 4
Perceived organizational justice	.796***	.394***		.219***
Job satisfaction			.395***	.221***
R^2	.633	.156	.156	.173
$Adj R^2$	.633	.155	.155	.172
F	1443.107***	153.850***	154.333***	87.535***
df	(1,835)	(1,835)	(1,835)	(2,834)

Source: This table is from the researcher.

Note：the values in the table are standardized coefficients （β） N = 837 *** p＜.001

Sobel test is further used to reexamine the mediating effect of job satisfaction between organizational justice perceptive and organizational citizenship behavior. The results show that the mediating effect is significant (z=3.037, p=.002). Therefore, perceived organizational justice of teachers in private universities will affect their organizational citizenship behavior through mediating variable job satisfaction. The number of standardized coefficients of mediating effects d=.444, that is, every standard deviation increase of organizational citizenship behavior will increase organizational citizenship behavior by .444 standard deviations through affecting

work satisfaction.

Therefore, organizational justice perceptive is not only a direct factor to stimulate teachers' organizational citizenship behavior, but also aims to stimulate teachers' organizational citizenship behavior by improving teachers' job satisfaction. This is consistent with the existing research results of Spector (2006), Jhuo and Guo (2015).

4.4 Moderating Effect of Teachers' Perception of Organizational Justice, Work Stress and Organizational Citizenship Behavior in Private Universities

Interaction effect, also known as moderating effect, refers to the effect of variable X on Y, which depends on another variable W, that is, the interaction of X and W has an effect on Y.

Hierarchical regression is used to test the effect of organizational justice perceptive and work stress on organizational citizenship behavior. As shown in Table 4.13. The results show that the main effects of perceived organizational justice and work stress can explain 16.4% of the variation of organizational citizenship behavior, $F(2,834) =81.781$, $p<.001$. After controlling the main effect, the interaction between organizational justice perceptive and work stress can increase the variation of organizational citizenship behavior by 2.1%, $F(1, 833)=21.801$, $p<.001$. In terms of the main effect, the perception of organizational justice has a significant explanatory power on organizational citizenship behavior ($\beta=.436$, $p<.001$). In other words, the higher the perceived organizational justice, the better the performance of organizational citizenship behavior. Work stress has significant positive explanatory power on organizational citizenship behavior ($\beta=.139$, $p<.001$), that is, the greater

work stress is, the better organizational citizenship behavior is. This conclusion may be that appropriate work stress turns into work motivation (Cavanaugh et al., 2000), which enhances teachers' self-expectation. The interaction between organizational justice perceptive and work stress has significant negative explanatory power for organizational citizenship behavior (β=-.152, p<.001). In other words, work stress has a negative moderating effect on the relationship between organizational justice perceptive and organizational citizenship behavior. This conclusion is consistent with the research of Cavanaugh et al. (2000).

Table 4.13 Regression analysis summary of the interaction between perceived organizational justice and work stress on organizational citizenship behavior

		Organizational citizenship behavior			
		Model 1	VIF	Model 2	VIF
	Perceived organizational justice	.418***	1.069	.436***	1.083
	Work stress	.095**	1.069	.139***	1.161
Interaction	Perceived organizational justice * Work stress			-.152***	1.088
	R^2	.164		.185	
	Adj R^2	.162		.182	
	ΔR^2			.021	
	F	81.781***		21.801***	
	df	(2,834)		(1,833)	

Source: This table is from the researcher.

Note：N = 837   ** p<.01   *** p<.001

The simple slope analysis chart of the interaction between organizational justice perceptive and work stress is further drawn. Simple slope test shows that, for the group with high work stress, teachers perceived organizational justice has

significant explanatory power for organizational citizenship behavior (b=.216, *p* <.001). For the group with low work stress, teachers perceived organizational justice also has significant explanatory power for organizational citizenship behavior (b=.407, *p*<.001). For teachers with low work stress, the higher the perception of organizational justice, the better the performance of organizational citizenship behavior. However, the effect of organizational justice perception on organizational citizenship behavior of teachers with high work pressure is relatively small. For teachers with low work stress, there is a strong positive correlation between organizational justice perceptive and organizational citizenship behavior. When organizational justice perceptive is high, teachers with low work stress show more organizational citizenship behavior than teachers with high work stress. But when the perception of organizational justice is not high, teachers with high work stress show more organizational citizenship behaviors than those with low work pressure. Low work stress and high perceived organizational justice show better organizational citizenship behavior.

As shown in Figure 4.1.
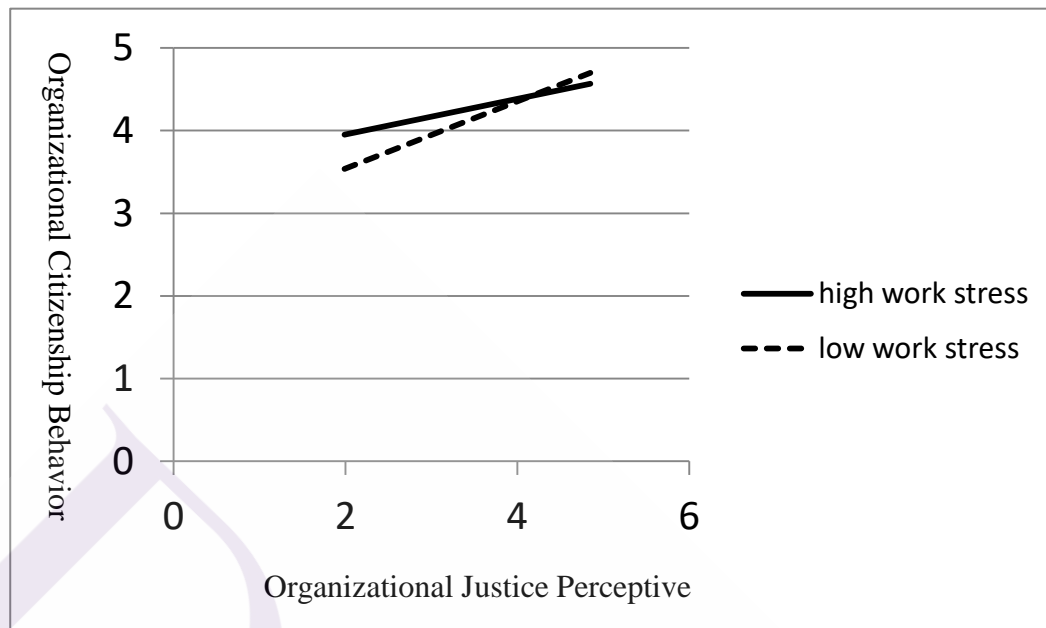
Figure 4.1 Simple slope analysis of interaction between organizational justice perceptive and work stress

　　　　Through Model 5 in Process (Hayes, 2013), this study further re-examine the mediating effect of job satisfaction on organizational justice perceptive and organizational citizenship behavior, and the moderating effect of work stress between organizational justice perceptive and organizational citizenship behavior. The analysis results show that the interaction of organizational organizational justice perceptive and work stress does not include 0 [Confidence Interval: LLCI=-.234, ULCI= -.101], which is significant. The change of Chi-square value of the interaction between organizational justice perceptive and work stress is also significant. Therefore, work stress plays a negative moderating role between organizational justice perceptive and organizational citizenship behavior. The direct influence of organizational justice perceptive and job satisfaction on organizational citizenship behavior is significant, and the indirect influence of organizational justice perceptive on organizational

citizenship behavior is still significant. Therefore, job satisfaction plays a part of mediating role between organizational justice perceptive and organizational citizenship behavior.

Table 4.14 Influence of organizational justice perceptive, job satisfaction and work stress on organizational citizenship behavior

Model Summary

R	R-sq	MSE	F	df1	df2	p
.796	.633	.159	1443.107	1.000	835.000	.000

Model

	coeff	se	t	p	LLCI	ULCI
Constant	3.544	.138	25.736	.000	3.273	3.814
Organizational Justice Perceptive	.175	.037	4.768	.000	.103	.247
Job Satisfaction	.187	.040	4.725	.000	.110	.265
Work Stress	.125	.028	4.420	.000	.070	.181
Int_1	-.168	.034	-4.968	.000	-.234	-.101

Int_1 Organizational Justice Perceptive * Work Stress On Organizational Citizenship Behavior

	R2-chng	F	df1	df2	p
Organizational Justice Perceptive * Work Stress	.024	24.683	1.000	832.000	.000

Conditional effects of the focal predictor at values of the moderator(s)

Work Stress		Effect	se	t	p	LLCI	ULCI
Low	-.664	.287	.044	6.582	.000	.201	.372
Moderate	.036	.169	.037	4.607	.000	.097	.241
High	.536	.085	.041	2.105	.036	.006	.165

Indirect effect(s) of Organizational Justice Perceptive on Organizational Citizenship Behavior

	Effect	BootSE	BootLLCI	BootULCI
工作满足	.137	.033	.076	.204

Source: This table is from the researcher.

Note: N = 837 $^{*}p<.05$ $^{***}p<.001$. Work Stress values in conditional tables are the

16th, 50th, and 84th percentiles.

In conclusion, the hypothesis of this study is tested by linear model analysis, mediating effect and moderating effect test, and path coefficient test.

H_1: Perceptions of organizational justice and job satisfaction of teachers in private universities have a significant impact on organizational citizenship behavior.

H_{1a}: Teachers' perception of organizational justice in private universities has a significant impact on organizational citizenship behavior. The above regression analysis shows that organizational justice perceptive has a significant positive explanatory power on organizational citizenship behavior (β=.394, p <.001). H_{1a} is supported.

H_{1b}: Teachers' job satisfaction in private universities has a significant impact on organizational citizenship behavior. Through regression analysis, it can be seen that job satisfaction has significant positive explanatory power on organizational citizenship behavior (β=.395, p<.001). H_{1b} is supported.

H_2: Perception of organizational justice of teachers in private universities has a significant impact on job satisfaction. Regression analysis shows that organizational justice perceptive has a significant positive explanatory power on job satisfaction (β=.796, p<.001). H_2 is supported.

H_3: Job satisfaction of teachers in private universities plays mediating effect between perceptions of organizational justice and organizational citizenship behavior.

When the explanatory power of organizational justice perceptive and job satisfaction on organizational citizenship behavior is considered, the explanatory power of organizational justice perceptive is still significant (β=.219, p=.000), and job satisfaction is still significant (β=.221, p<.001). Therefore, job satisfaction partially

mediates the relationship between organizational justice perceptive and organizational citizenship behavior. H_3 is supported.

H_4: Work stress of teachers in private universities plays moderating effect on the impact of organizational justice perceptive on organizational citizenship behavior.

The interaction of organizational justice perceptive and work stress has significant negative explanatory power for organizational citizenship behavior (β=-.152, p<.001). H_4 is supported.

Chapter 5

DISCUSSION

This study aims to explore the influence and mechanism of teachers' perception of organizational justice, job satisfaction and work stress on their organizational citizenship behaviors in the field of private universities under the cultural background of mainland China. Based on the research purposes, questions and assumptions, this chapter further systematically summarizes the above statistical analysis results and compares them with existing literature.

5.1 Teachers' Perception of Organizational Justice Has a Significant Impact on Their Organizational Citizenship Behavior in Private Universities

The results of this study show that there is a significant positive correlation between teachers' perception of organizational justice and their organizational citizenship behavior. Nadiri and Tanova (2010) also support this conclusion. The three dimensions of organizational justice perceptive (distributive justice, procedural justice, and interactive justice) are significantly positively correlated with the five dimensions of organizational citizenship behavior (identification with the school, altruism toward colleagues, conscientiousness, interpersonal harmony, and protecting school resources), with correlation coefficients ranging from .191-.801. Teachers' perception of organizational justice in private universities has a significant impact on their OCB. This finding has been reported in the past (e.g., Yu & Zhong, 2008; Erkutlu, 2011; Saifi & Shahzad, 2017; Samudi et al., 2012; Bauwens et al., 2019). Blakely, Andrews

and Moorman (2005) support the significant positive influence between the two variables, indicating that good sense of justice leads to the increase of organizational citizenship behavior. Saifi and Shahzad (2017) also believe that the decision of employees to perform OCB is based on the fair organization treatment. Zhao (2013) conducts a study on private universities in Taiwan and has found that teachers' perception of organizational justice positively affects their organizational citizenship behaviors. According to the results of this study, this conclusion is also applicable to the cultural situation and educational field of private universities in mainland China. That is to say, the higher the level of teachers' perception of school organizational justice, the more willing they are to exhibit organizational citizenship behavior. When teachers feel treated fairly by the school, their attitudes and behaviors will be affected, and their sense of identity and belonging to the school will be enhanced. Based on the psychology of exchange and feedback, teachers are more likely to actively fulfill their duties, and show more behaviors beyond their roles.

This study further finds that different dimensions of organizational justice perceptive have different influences on teacher's organizational citizenship behavior. Distributive justice and interactive justice have positive and significant influences on teacher's OCB, while procedural justice has no significant influences on OCB. Previous studies have found that procedural justice (e.g., Cohen & Spector, 2001), interactive justice (e.g., Organ, 1990; Karriker & Williams, 2009), procedural justice and interactive justice (Greenberg, 1990) help increase organizational citizenship behavior. Alotaibi (2001) study on public workers in Kuwait points out that only procedural and distributive justice could affect employees' OCB. Knippenberg and Cremer (2008) review past studies and find that higher distributive justice, procedural

justice and interactive justice will lead to subordinates' better attitudes and behaviors, including satisfaction, cooperation and organizational citizenship behaviors. Nadiri and Tanova (2010) find in their study on hotel employees and managers that, compared with procedural fairness, distributive justice has a stronger ability to predict all job satisfaction, OCB and other research variables. Ting (2016) find in his study on primary school teachers that procedural justice and interactive justice have stronger positive effects on organizational citizenship behavior than distributive justice. Wu and Chen (2017) believe that for organizations that respect people, there is a strong relationship between interactive justice and organizational citizenship behavior. For organizations with higher team orientation, the relationship between distributive justice and procedural justice and organizational citizenship behavior is weak. Bauwens et al. (2019) study performance management justice of academic staff in universities and colleges and have found that academic staff's cognition of distribution justice and interactive justice of performance management increases their organizational citizenship behavior by reducing employees' sense of job burnout. It can be seen that although scholars have reached a consensus on the significance of organizational justice in organizational citizenship behavior, they hold different views on the impact of different dimensions of organizational justice perceptive on organizational citizenship behavior. This may be related to the cultural tradition and nature of the organization in which the sample population is located. In this study, teachers' perception of distributive justice and interactive justice has a significant impact on their organizational citizenship behavior, while procedural justice perception has no significant impact on their organizational citizenship behavior, which may be related to Chinese cultural situation and the organizational

development stage of private universities. Currently, private universities in mainland China are in the development stage. Teachers in private universities regard their job as a means of livelihood rather than a kind of career pursuit. Therefore, they are more focused on whether the school distributions in all aspects meet the requirements of justice, and whether individuals are treated with respect and justice in their job interaction. Under the influence of traditional Chinese culture, school decision-making is generally concentrated in the management class, and teachers' enthusiasm for participation is not high. It can also be seen from the lowest score in OCB questionnaire "I make constructive suggestions that can improve the operation of the company". Therefore, teachers do not feel deeply about procedural justice.

5.2 Teachers' Perception of Organizational Justice Has a Significant Impact on Their Job Satisfaction in Private Universities

The results of this study show that there is a significant positive correlation between the perceived organizational justice of teachers in private universities and their job satisfaction. This is consistent with previous research findings (e.g., Fatimah, Amiraa, & Halim, 2011; Nadiri & Tanova, 2010; Saifi & Shahzad, 2017). The three dimensions of organizational justice perceptive (distributive justice, procedural justice, and interactive justice) are also significantly positively correlated with the two dimensions of job satisfaction (internal satisfaction and external satisfaction), with correlation coefficients ranging from .344 to .727. Fatimah, Amiraa and Halim (2011) apply the same scale to the study of Malaysian middle school teachers, and also find that the three dimensions of organizational justice perceptive are significantly positively correlated with job satisfaction.

Teachers' perception of organizational justice in private universities has significant positive explanatory power to their job satisfaction. That is to say, teachers who feel fair treatment in school are more likely to have positive emotional experience, strengthen work motivation, and increase the identification with internal management and working environment in school. The degree of teachers' job satisfaction will increase with the increase of their perceived organizational fairness. The results are consistent with previous studies. Wan (2016) points out that organizational justice perceptive is the main pre-variable of job satisfaction. Zainalipour et al. (2010) also find consistent results in the research on middle school teachers.

The study further find that the different dimensions of teachers' organizational justice perceptive in private universities can have a positive and significant impact on job satisfaction, and the degree of impact from high to low is distributive justice, interactive justice and procedural justice in order. However, Bakhshi, Kumar and Rani (2009) find that distributive justice has significant predictive power on job satisfaction, while procedural justice has no significant correlation with job satisfaction. Fatimah, Amiraa and Halim (2011) have studied Malaysian middle school teachers and found that teacher' procedural justice had no significant influence on job satisfaction, while distributive justice and interactive justice have significant predictive power on job satisfaction, and interactive justice > distributive justice. He believes that this is because the behavior of leaders has an important impact on the formation of individual distributive justice and interactive justice perceptive. Robbins and Judge (2016) suggest that distributive justice is a better predictor of job satisfaction than procedural justice. It can be seen that scholars

have different opinions on the influence and degree of different diemensions of organizational justice perceptive on job satisfaction. The difference may be related to different organizational characteristics, organizational development stages, cultural environment and occupations of the sample population. Imer et al. (2014) have found in the study of middle school teachers and engineers that OCB is influenced by different professions, and teachers show more OCB than engineers.

5.3 Teachers' Job Satisfaction Has a Significant Impact on Their Organizational Citizenship Behavior in Private Universities

The results of this study show that there is a significant positive correlation between teachers' job satisfaction and their OCB. This is consistent with the research results of Fatimah, Amiraa, Halim (2011), Sawalha et al. (2019) on Malaysian middle school teachers and Pakistani business organization managers respectively. The research of Saifi and Shahzad (2017) on teachers of public and private higher education institutions in many countries also has obtained basically consistent results. Moreover, there is a significant positive correlation between the two dimensions of teachers' job satisfaction (internal satisfaction and external satisfaction) and the five dimensions of their OCB (identification with the school, altruism toward colleagues, conscientiousness, interpersonal harmony, and protecting school resources), with the correlation coefficient ranging from .107 to .418 in this study.

Teachers' Job satisfaction in private universities has significant positive explanatory power to their OCB. That is to say, teachers who are satisfied with the school will increase their sense of identity and trust in the school, and then generate or increase OCB. This is consistent with the research conclusion of Ajat ea al. (2019) on

vocational high school teachers. Existing literatures show that, in the pre-prediction variables of OCB, the attitude variables show a strong relationship with OCB, and are proved to be a strong predictor. Organ, Podsakoff and MacKenzie (2006) believe that among these attitude variables, job satisfaction has the greatest impact on OCB compared with organizational commitment and employee engagement. Bowling (2010) believes that employees who exhibit OCB reflect their satisfaction with the working environment of the organization and regard their OCB as a way to repay the organization. Sawalha, Kathawala and Magableh (2019) also find that employees who are satisfied with their jobs make extra efforts to make positive contributions to the organization. Therefore, this relationship is also applicable to private universities in mainland China.

This study further has found that both internal and external satisfaction of teachers have significant positive effects on their OCB, which is consistent with the conclusion of Zadeh, Esmaili and Tojari (2015). Mohammad, Quoquab Habib and Alias (2011) have studied universities teachers in Malaysia, and the results have showed that teachers' internal and external satisfaction have a significant impact on the OCBO (OCB towards the organization) dimension of OCB. In other words, teachers' good out-of-role behaviors come from their positive emotions and psychological state for work. Teachers with high job satisfaction are more willing to contribute to the school, tend to show their concern and support for the school's development, assist colleagues, love their job and improve their own ability, and do more work than expected.

5.4 Teachers' Job Satisfaction Plays Partial Mediating Effect between Organizational Justice Perceptive and Organizational Citizenship Behavior in Private Universities

The results of this study show that teachers' job satisfaction in private universities plays a part of mediating effect between organizational justice perceptive and OCB. That is to say, the influence of teachers' organizational justice perceptive on their OCB is partly through improving teachers' job satisfaction, and then has a positive impact on their OCB. The study of Saifi and Shahzad (2017) on managers of public and private sectors in Pakistan also has found that with the increase of job satisfaction, the relationship between organizational justice perceptive and OCB becomes stronger. The decision of the employee to carry out OCB has strong reciprocity with the result of the fair treatment from the organization. When employees have a positive cognition of organizational fairness and feel satisfied with their work, OCB that is not in the formal job description is higher. Singh and Singh (2019) believe that employees' perception of organizational fairness can directly predict or indirectly affect their attitudes and behaviors at work through mediator variables. Jhuo and Guo (2015) also have found a positive and significant relationship between organizational justice and OCB in their research on employees in Taiwan, and job satisfaction plays partial mediator effect between organizational fairness and OCB. This study verifies the applicability of this relationship in the context of Chinese mainland culture and educational organization in private universities. Therefore, the construction of a fair and reasonable working environment in the school will enhance teachers' goodwill and satisfaction towards the school, enhance their sense of belonging and commitment to the school, and thus promote the display

of teachers' OCB.

5.5 Teachers' Work Stress Plays the Negative Moderating Effect between Organizational Justice Perceptive and Organizational Citizenship Behavior in Private Universities

The results of this study show that the interaction between organizational justice perceptive and work stress of teachers in private universities has a significant negative explanatory effect on OCB. In terms of the main effect of Hierarchical regression, organizational fairness has significant explanatory power for OCB. In other words, the higher the perceived organizational fairness, the better the organizational citizenship behavior. Work stress has significant positive explanatory power for OCB, that is, the greater the work stress is, the better the organizational citizenship behavior is. Gmelch (1982) believes that work stress will not always have a negative impact, but moderate work stress will make workers see it as a challenge and stimulate their work motivation and willingness, so as to improve work performance. It has also been found that challenging stress contains both positive and negative effects (Widmer, Semmer, Klin, Jacobshagen, & Meier, 2012), which is a mixed relationship of positive and negative emotional experiences (Schaufeli & Taris, 2014). Therefore, the significant positive explanatory power of work stress on OCB may be because the negative effect of hindence stress is eliminated by the positive effect of challenging stress.

After controlling the main effect, the interaction between organizational justice perceptive and work stress can increase the variation of OCB by 2.1%, and β value is negative. Therefore, the interaction of organizational justice perceptive and

work pressure has significant negative explanatory power for OCB. That is to say, teachers' work pressure negatively moderates the relationship between organizational justice perceptive and OCB. In other words, the influence of teachers' perception of organizational justice on their OCB is influenced by teachers' of work pressure. When teachers are under high work stress, the positive effect of organizational justice perceptive on OCB will be weakened. When teachers feel low work stress, the higher the organizational justice perceptive, the richer and more adequate their OCB. This conclusion is consistent with the research of Cavanaugh et al. (2000). Bu, Zhang and Du (2018) have found that the challenging stress not only includes the loss of resources, but also has an incentive and promoting effect. When employees are faced with challenging stressors, they are more likely to adopt cognitive approaches to solve problems. In the face of hindence stressors, they are more likely to resort to emotional responses. The results of this study are also similar to those of other work attitude and outcome variables. Tiwari and Singh (2017) find that work pressure negatively moderates the relationship between job satisfaction and organizational commitment, that is, the higher the employee's work pressure is, the lower the positive efficacy of job satisfaction on organizational commitment is. Zhang, Bu and Wee (2016) also have found that work pressure has a moderating effect on the relationship between employees' sense of organizational support and creativity, especially when the challenging stress is high or the hindence stress is low, the relationship is positive. When the challenge stress is low or the hindence stress is high, the influence of organizational support on employees' creativity is not significant. This study verifies the adaptability of work stress to the moderator effect between teachers' perception of

organizational fairness and OCB in the new organizational context of private universities.

Chapter 6

CONCLUSION

This chapter summarizes the contributions of this research. The practical application value of this research in private universities and educational administrative departments is proposed. The limitations of the research and their possible effects on the research results are described. Based on the limitations in the research process and analysis, the possible directions and concerns of future research on teachers' OCB are proposed.

6.1 Theoretical Contribution

By sorting out the relationships among variables, this study has constructed a theoretical framework including the perception of organizational justice, job satisfaction, work stress and organizational citizenship behavior. The results show that the hypothesis of this study has been verified. The conclusions of this study are as follows. Teachers' perception of organizational justice in private universities can significantly predict their organizational citizenship behaviors. Teachers' job satisfaction in private universities can significantly predict their organizational citizenship behaviors. The perception of teachers' organizational justice in private universities can significantly predict their job satisfaction. Teachers' job satisfaction in private universities plays a partial mediating effect between organizational justice perceptive and organizational citizenship behavior. Teachers' work stress in private universities plays a negative moderate effect between their perceptions of

organizational justice and organizational citizenship behavior.

Previous researches on organizational citizenship behavior are mostly carried out in western culture, and the researches on teachers' organizational citizenship behavior mainly focus on primary and secondary schools. Previous researches on organizational citizenship behavior are mostly carried out in western culture, and the researches on teachers' organizational citizenship behavior mainly focus on primary and secondary schools. The theoretical contribution of this study is that the application of the OCB empirical study in the Chinese mainland private universities (different from previous research, this is a new cultural situation and education field), which provides a new research perspective for the analysis of the Chinese mainland private colleges teachers work behavior and performance, also expands new field and the research object for the OCB theoretical study. In a new organizational context, the existing research findings are tested and verified, which enrich the theoretical research of organizational citizenship behavior. At the same time, it is difficult to find the research that contains the four variables of organizational justice perceptive, job satisfaction, work stress and organizational citizenship behavior, especially the research on the relationship between organizational justice perceptive, work pressure and organizational citizenship behavior. This study verifies the influence mechanism and path relationship among the four variables, which makes up for the deficiency of existing researches on organizational citizenship behavior. The research results are helpful to improve scholars' understanding in regard to the possible impact of perceived organizational junstice, job satisfaction and work pressure on organizational citizenship behavior in Chinese private universities.

6.2 Implications of Study

Through the three variables of organizational justice perceptive, job satisfaction and work stress, this study discusses the incentive or restriction factors of teachers' OCB in private universities. The research results show that teachers' positive perception of organizational justice is an important factor affecting their job satisfaction, and also has a significant direct and indirect impact on OCB. Teachers' job satisfaction not only directly and significantly affects their OCB, but also mediates the positive influence of organizational justice on OCB. Teachers' sense of organizational justice has a direct and positive impact on their OCB, and this relationship is moderated by teachers' sense of work stress. High level of organizational justice perceptive, job satisfaction and appropriate job pressure can promote teachers to produce higher OCB. Research on this relationship can provide administrators with enough valuable information to develop plans to maintain OCB and motivate employees to improve performance (Saifi & Shahzad, 2017). The results of this study provide theoretical and empirical basis for leaders and administrators of private universities and educational administrative departments to study and monitor the development of schools and teachers' work behaviors, and have important practical value for optimizing the management of private universities and promoting the development of private higher education.

6.2.1 Leaders and administrators of private universities

As an important factor to improve the quality of personnel training and the efficiency of private universities, OCB should be concerned by the leaders and administrators of private universities. Private universities should focus on monitoring teachers' performance rather than focusing on jobs related to teachers' job description

requirements. It is necessary to ensure the fairness and justice of school organizations, constantly improve teachers' job satisfaction, reduce teachers' sense of work pressure, and convey it to teachers, so as to build trust and loyalty between schools and teachers, make teachers dedicated and happy in their work, display OCB actively and voluntarily, and make every effort to serve the development of schools.

6.2.1.1 Construct a fair and just organizational environment in schools and motivate teachers to show more organizational citizenship behavior

The research results show that teachers' positive perception of organizational justice is an important factor affecting their job satisfaction, and also has a direct and indirect positive and significant impact on OCB. Therefore, it is essential to take measures to encourage behavior that goes beyond role description and makes a significant contribution to higher education (Mohammad et al., 2011). From the current situation, the overall perception of teachers' organizational fairness in pivate colleges is above the medium level, and the interactive justice perceptive > procedural justice perceptive > distributional justice perceptive. It indicates that teachers of private universities have the least ideal perception of distributive justice. It indicates that teachers of private universities have the least ideal perception of distributive justice. At the same time, in the dimension of distributive justice, item 2 "I think that my leve1 of pay is fair" scores the lowest. In the dimension of procedural justice, item 7 "To make job decisions, my general leader collects accurate and complete information" receives the lowest score. In the dimension of interactional justice, the lowest score is item 12 "Concerning decisions made about my job, the genera1 leader discusses the implications of the decisions with me". Therefore, teachers have the lowest perception of fairness in salary and interpersonal interaction in

decision-making. Perhaps private universities teachers are invited to participate in the school decision-making with few opportunities and low sense of fairness. In the OCB questionnaire, item 3 "I make constructive suggestions that can improve the operation of the company", has the lowest score in this questionnaire. Compared with other social organizations, private universities teachers have a higher level of knowledge and a higher demand to be respected, and have a higher demand and participation ability to be treated fairly than employees with lower knowledge level.

Organizational justice is an important factor that affects job satisfaction and OCB. The degree of job satisfaction comes from whether the management class constructs fair organizational system and policy system. Tiwari and Singh (2017) believe that a positive and satisfactory working environment can improve employees' job satisfaction, which in turn can become an important variable to improve employees' commitment level. Bauwens et al. (2019) emphasize the important role of fair performance management system in the work achievements of academic staff in universities, and suggest that higher education institutions should carefully design and implement performance management system and treat employees fairly. Saifi and Shahzad (2017) also suggest that organizational managers and leaders should create a fair and just organizational environment in all aspects of organizational life. Therefore, in order to ensure that teachers have high job satisfaction and loyalty to the school, it is important that the school is fair and equitable in all aspects, which is part of the supportive organizational culture. Based on this, it is suggested that the leaders and administrator of private universities should strive to build a more fair and reasonable organizational environment and system standard, and create a working atmosphere in which the competent people work more and get more. They should pay special

attention to distributive justice and interactive justice, actively collect teachers' opinions and suggestions in major decisions concerning the cultivation of talents in schools, and then promote the scientific and democratic nature of school decisions-making, teachers' sense of fairness and job satisfaction. In this way, teachers' desire to stay in the organization is constantly enhanced, and more work involvement is encouraged to the greatest extent, so that they can better serve the development of the school by good performance inside and outside of the role.

6.2.1.2 Promote school working environment and salary to improve teachers' job satisfaction

The results show that teachers' job satisfaction not only has a significant direct impact on their OCB, but also mediates the positive impact of perceived organizational justice on OCB. Therefore, private universities should pay attention to how to cultivate teachers' job satisfaction, so as to arouse teachers' better job performance. From the current situation, the job satisfaction of teachers in private universities is above the medium level, and the internal satisfaction is higher than the external satisfaction. In the external satisfaction dimension, the score of item 7 "I feel satisfied with my pay ", the score of item 4 "I feel satisfied with the way my co-workers get along with each other ", and the score of item 8 "I feel satisfied with the way school policies are put into practice" are all lower than the average of this dimension. It indicates that teachers in private universities generally feel that their salary has not reached the expected level, that they are not satisfied by others or the environment at work. They are less active in assisting colleagues and have some opinions on the way of implementing policies of the school.

According to Saifi and Shahzad (2017), organizations can provide employees

with appropriate feedback so that they can identify with their work and show responsible and dutiful attitudes and behaviors. Therefore, leaders and managers of private universities should strengthen the evaluation of teachers' work input and output, and appropriately increase the salary of teachers. It is suggested that the administrators should pay more attention to the implementation of school policies, fully communicate and interact with teachers in the implementation of policies, respect teachers' reasonable demands, and promote the effective implementation of policies in a way that is more acceptable to teachers. At the same time, administrators should actively create a harmonious cultural atmosphere and interpersonal environment, enhance the understanding, communication and mutual trust among teachers through exchanges, sincere talks, fellowship and other forms of meetings and activities, so as to form a joint force to serve the development of the school.

6.2.1.3 Adjust teachers' work stress appropriately to create more opportunities for teachers' career development

The results show that teachers' sense of organizational justice has a direct and positive impact on their OCB, but at the same time, this relationship is moderated by teachers' sense of work pressure. Appropriate sense of work pressure and higher sense of organizational justice will promote teachers to show better OCB. On the contrary, low sense of justice and high work pressure will inhibit the motivation of teachers' OCB. From the current situation, teachers in private universities perceive greater overall work pressure, and the pressure of challenge is higher than the pressure of obstruction. Webster, Beehr and Love (2011) believe that although challenge pressure has positive effects, in the long run, as long as an individual is in a stressful working environment, it needs to make efforts to cope with the pressure requirements,

which is still harmful to the individual and will produce negative physical and mental stress response. Teachers score the highest on challenge stress item 1, "I feel pressure on the number of projects and/or assignments I have", and hindence stress item 10, "I feel pressure on the degree to which my career seems". Item 9 of the OCB questionnaire, "I do not mind taking on new or challenging assignments", score the lowest in the dimension of conscientiousness. This is related to the overall situation of private education in mainland China.

Compared with public institutions of higher learning, private institutions of higher learning in mainland China have a higher ratio of students to teachers, so teachers undertake more tasks and work loads. Private universities in mainland China, with a development history of only more than 30 years, are in the development stage, and teachers have more opportunities and space to take on new tasks and challenges. According to Educational Statistics Yearbook of China, the ratio of students to teachers in national universities was 16.9% and 16.8% respectively in 2016-2017, and 19.9% and 19.8% respectively in private universities (Department of Development & Planning, Ministry of Education, the People's Republic of China, 2017, 2018). The ratio of students to teachers in private universities was 3 percentage points higher than that in national universities. Take Shandong province as an example. From 2014 to 2016, the student-teacher ratio in private universities was 18.8%, 19.36% and 19.26% respectively (Shandong Department of Education, 2015, 2016, 2017), which also exceeded the national average level of the student-teacher ratio. However, according to the scores of the questionnaire in this study, what teachers care more about is not whether they undertake more work tasks, but whether they can develop their personal career after spending more time and effort.

Therefore, it is suggested that leaders and managers of private universities should pay more attention to teachers' work pressure, timely monitor the source and degree of teachers' work pressure, and moderately reduce teachers' work tasks and strengthen teachers' work motivation through a reasonable match of personnel, workload and salary. Attach importance to humanistic care for teachers, and avoid the negative impact of work pressure on teachers by improving their psychological satisfaction and emotional experience. At the same time, it is suggested that private universities pay attention to teachers' professional development and growth, strengthen the design of teachers' career development plan, promote teachers' professional ability through academic education, professional training and other forms, so as to guide teachers to turn work pressure into a powerful power to serve the development of schools and achieve personal progress.

6.2.2 Administrative departments of education

This study also provides an empirical basis for the educational administration to monitor the development of schools. Teachers' perception of organizational fairness, job satisfaction, work pressure and poor performance of organizational citizenship behavior in private universities in mainland China also have profound policy and social roots. Currently, private education in mainland China is in a period of policy window and development and transformation. The classified management reform of private education has brought unprecedented opportunities to the development of private higher education. Meanwhile, the uncertainty and unpredictability of future development also make the development of private universities face great pressure and challenges (Hu, 2019). The concept of for-profit and non-profit classified management of private education is based on the dual value orientation of private

education management utility and public welfare. The implementation of classified management policy is undoubtedly conducive to promoting the standard development of private education and ensuring that public financial funds are used for the development of educational public welfare undertakings. In response to the reform, private universities have stepped up the research and judgment of development path, so as to further clarify the development direction and path, and improve the quality of running schools and school efficiency through multiple channels. With the selection and expansion of some private universities in the for-profit development mode, the society and public opinion have strengthened the negative social perception of private education. The important task of school development and the social doubt on the identity of private schools and their teachers have virtually increased the work pressure of private college teachers and affected their organizational identity and sense of belonging to the school. As the superior competent department, the education administrative department has the responsibility and obligation to promote the benign development of private higher education and protect the legitimate rights and interests of teachers.

Therefore, it is suggested that the education administration departments: first, strengthen the publicity of the classified management policy of private education, continue to actively create the cultural environment and public opinion atmosphere that the whole society supports the development of private education, and enhance the public's understanding of the social status and role of private education. Secondly, strengthen the work guidance and behavior supervision in the process of running schools of private universities, promote the improvement of the running mode of private universities, improve the quality of personnel training, adhere to the public

nature of education, and achieve sustainable development. Thirdly, earnestly implement the requirements of national policies and improve the social security mechanism for private universities teachers, which is shared by schools, individuals and the government. For qualified private colleges teachers, the financial department shall give appropriate subsidies, improve teachers' social security treatment after retirement, alleviate the work pressure of private university teachers and worry about future life, enhance the attraction of the private colleges, to ensure that the teachers can set his mind at to devote themselves to the private education, show more organizational citizenship behavior.

6.3 Limitations of Study

This study strives to improve the research design. For example, in order to avoid Common Method Variance or Same Source Bias (Podsakoff, MacKenzie, Lee, & Podsakoff 2003), this study samples from different provinces or regions in mainland China. In order to improve the generalization value of the research results, this study makes the best efforts to expand the sample scope, etc. However, there are still some limitations in the process and analysis, which may affect the research results to a certain extent, so it is worth continuing efforts in the follow-up research.

6.3.1 Limitations of research instruments

At present, there is a lack of localization scale in mainland China which is specific to educational organization situation. Therefore, the tool of this study is selected from the mature scale verified by a large number of empirical studies abroad, and the Chinese translation version use the existing research results for reference. During the translation process, the author has consulted and discussed with education

experts and language scholars for many times, and invited some private college teachers to conduct informal tests within a small scope before the preliminary test. However, due to the differences between Chinese and western cultures, the translated questions may have similar expressions and inappropriate Chinese cultural situations, which will more or less cause some confusion in the understanding of the subjects, and may lead to deviation in the research results.

6.3.2 Limitations of research methods

In this study, questionnaire survey is used to collect empirical research data, and various statistical methods are used for quantitative analysis. Quantitative research undoubtedly has certain objectivity and extensibility, but it is difficult to explore teachers' deep inner thoughts due to the limitations of questions and forms (Zhao, 2013). Secondly, the data are collected by cross-sectional data collection. Wen and Ye (2014) believe that in the field of social sciences, although there is a causal relationship between some variables, it may take a period of time to observe changes, so data based on cross section may not be able to make an accurate judgment of the causal relationship.

6.3.3 Limitations of research variables

This study cannot include all the factors that affect the OCB of teachers in private universities, but only three of them are selected, namely, perception of organizational justice, job satisfaction and work stress. These three influencing factors are all teachers' perception and evaluation of the organization and work, that is, the influence of external factors on teachers' organizational citizenship behavior. This study has not yet included teachers' own factors into the perspective of analysis. An increasing number of studies have found that individual factors such as work mood,

attitude, personality traits, job involvement and self-efficacy have significant influences on organizational citizenship behavior (Tang et al., 2017; Rurkkhum & Bartlett, 2012). Liu et al. (2017) believe that not all employees in an organization exhibit organizational citizenship behavior, which is restricted by the actor's ability. Therefore, the analysis of the influence of teachers' individual characteristics on their OCB is helpful to deeply explore the multiple influencing factors of teachers' organizational citizenship behavior.

6.4 Directions of Future Research

The limitations in the process and analysis of this study provide an improved direction for subsequent studies. Based on the above limitations, the following specific suggestions are proposed for future research.

6.4.1 Continue to expand the sample scope, and further strengthen the rigor of the research process

In order to avoid the phenomenon that the sample size is too small to represent the whole, this study tries its best to find more private college teachers as subjects to fill in the questionnaire, which is the basis and premise of ensuring objective and scientific quantitative research.Tziner and Sharoni (2014) also proposed that a similar study conducted in a broader scope would help to determine the reliability and validity of the survey results.Therefore, in the future research, it is necessary to continuously strengthen the research on this topic, continue to expand the sample range and collect more information of teachers in private universities, so as to make the research results more generalized and generalizable.

At the same time, it is also necessary to pay more attention to the

questionnaire filling process and the recycling method to further ensure the rigor of the research process. On the one hand, try to direct the questionnaire in person to ensure that the teachers fully understand the contents of the questionnaire. On the other hand, the questionnaire is collected in person or sent back by the testee teachers to try to dispel the doubts of the subjects and make them make objective and accurate judgments based on their actual feelings and experiences.

6.4.2 Improve research methods and carry out comparative and multi-level research

First, according to the suggestions of Wen and Ye (2014), longitudinal diachronic data can be obtained through follow-up studies in future studies, so as to ensure more accurate relationships among variables and overcome the disadvantages of cross-sectional data. The second is to strengthen the combination of quantitative research and qualitative research, supplemented by qualitative research, and to add in-depth interviews with the tested teachers. On the one hand, the interview results are used as the basis for the revision of the questionnaire to develop research tools more suitable for the cultural situation and private education field in mainland China, so as to enhance the pertinence of the research. On the other hand, the qualitative and quantitative research results are compared and analyzed to deepen the understanding of this topic. Thirdly, strengthen the comparative study on the characteristics and differences of teachers' OCB between public universities and private colleges under the cultural context of mainland China, enrich the theoretical research on teachers' OCB, and improve the application value of the research results. Fourth, we can try to use the method of hierarchy analysis on this issue. Although some scholars believe that the ICC value is below .2 or .5, the influence of multi-level structure can be

ignored. However, some scholars believe that when the ICC value is greater than .138, it means that the difference between groups cannot be ignored, which requires multi-level statistical analysis (Cohen, 1988). Therefore, multi-layer linear model can be used in subsequent research to deepen the research on this issue.

6.4.3 Explore other key factors predicting teachers' organizational citizenship behavior in private universities

Organizational citizenship behavior provides a new perspective on the behavior of university teachers (Yang & Qiu, 2014), and it is very important to understand the potential motivating factors that encourage teachers to engage in activities beyond their job responsibilities (Cheasakul & Varma, 2015). Although OCB is associated with higher job satisfaction, this topic has received little attention in the research of higher education institutions so far (Teh, Boerhannoeddin, & Ismail, 2012). Saifi and Shahzad (2017) believe that more variables can be used to better understand OCB. Therefore, it is reconmmended the future reseachers should continue to deepen the study of private university teachers' OCB, and further to explore the motivation of teachers' OCB, research focus transformation gradually from the macro level of organizational factors (e.g., organizational commitment, organizational identification, etc.) to the micro level of individual level (such as teachers' personal emotions, attitudes, job involvement, psychological capital, personality characteristics, etc.). Or add these variables into the model to increase its explanatory power to OCB, deepen the theoretical research on OCB in the field of higher education, and better guide the development practice of private education.

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APPENDICES

Appendix A Preliminary Questionnaire

Pre-Test Questionnaire on the Relationship among Teachers' Organizational Justice Perceptive, Job Satisfaction, Work Stress and Organizational Citizenship Behavior in Chinnese Private Universities

Dear teachers,

Thank you for your time. This is a purely academic research questionnaire, hoping to help relevant theoretical development and practical work by understanding the current situation of teachers in private universities and verifying their academic rationality. Your opinions are very valuable and have important reference value for this study. Please fill in the answers according to your real situation and feelings. This questionnaire is anonymous. The information you provide in the questionnaire is only for the purpose of this study, and will never be disclosed. Please feel free to fill in.

Thanks again for your participation and help in your busy schedule!

DPU International College, Dhurakij Pundit University, Thailand

Dissertation Supervisor: Dr. Yi-Jian Huang

Doctoral candidate in education management: Junru Xiao

March, 2019

I. Basic information (Please tick "√" in the number suitable for individual or school)

1. Gender: (1) Male   (2) Female
2. Age: (1) 30 years old or below   (2) 31-40 years old
             (3) 41 to 50 years old   (4) Age 51 and above
3. Services year: (1) 5 years or less   (2) 6 -10 years
             (3) 11-20 years   (4) more than 20 years
4. Education: (1) Junior college degree   (2) Bachelor degree
             (3) Master degree   (4) Doctor degree
5. School level: (1) Undergraduate universities   (2) Junior college

II. Contents of the questionnaire (Please tick "√" in the appropriate number, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.)

1. Teachers' Organizational Justice Perceptive

No	Item	Options				
1	My work schedule is fair.	1	2	3	4	5
2	I think that my leve1 of pay is fair.	1	2	3	4	5
3	I consider my work 1oad to be quite fair.	1	2	3	4	5
4	Overal1, the rewards I receive here are quite fair.	1	2	3	4	5
5	I fee1 that my job responsibilities are fair.	1	2	3	4	5
6	Job decisions are made by the general leader in an unbiased manner.	1	2	3	4	5
7	My genera1 manager makes sure that all employee concerns are heard before job decisions are made.	1	2	3	4	5
8	To make job decisions, my general leader collects accurate and complete information.	1	2	3	4	5
9	My general leader clarifies decisions and provides additional information when requested by employees.	1	2	3	4	5
10	All job decisions are applied consistently across all affected teachers.	1	2	3	4	5
11	Employees are allowed to challenge or appeal job decisions made by the general leader.	1	2	3	4	5
12	When decisions are made about my job, the genera1 leader treats me with kindness and consideration.	1	2	3	4	5
13	When decisions are made about my job, the general leader treats me with respect and dignity.	1	2	3	4	5
14	When decisions are made about my job, the genera1 leader is	1	2	3	4	5

No	Item	Options
	sensitive to my personal needs.	
15	When decisions are made about my job, the general leader deals with me in a truthful manner.	1 2 3 4 5
16	When decisions are made about my job, the general leader shows concern for my rights as a teacher.	1 2 3 4 5
17	Concerning decisions made about my job, the general leader discusses the implications of the decisions with me.	1 2 3 4 5
18	The general leader offers adequate justification for decisions made about my job.	1 2 3 4 5
19	When making decisions about my job, the general leader offers explanations that make sense to me.	1 2 3 4 5
20	My general leader explains very clearly any decision made about my job.	1 2 3 4 5

2. Teachers' Job Satisfaction

No	Item	Options				
1	I have the chance to try my own methods of doing the job.	1	2	3	4	5
2	I feel respected for my work.	1	2	3	4	5
3	I get the feeling of accomplishment from the job.	1	2	3	4	5
4	I can give full play to my ability at work.	1	2	3	4	5
5	I have the chance to do something that makes use of my abilities.	1	2	3	4	5
6	I can use my professional knowledge and own judgment in work.	1	2	3	4	5
7	I have the chance to do things for other people.	1	2	3	4	5
8	My job provides the way for steady employment.	1	2	3	4	5
9	I feel satisfied with the way my co-workers get along with each other.	1	2	3	4	5
10	This job providesme the chances for advancement.	1	2	3	4	5
11	The school provides me with opportunities for professional development.	1	2	3	4	5
12	I feel satisfied with my pay.	1	2	3	4	5
13	I feel satisfied with the way school policies are put into practice.	1	2	3	4	5
14	I feel satisfied with the competence of my supervisor in making decisions.	1	2	3	4	5
15	I get the praise for doing a good job from my superiors.	1	2	3	4	5
16	I get the praise for doing a good job from my colleagues.	1	2	3	4	5
17	I feel satisfied with the way my superiors handles his/her workers.	1	2	3	4	5
18	I feel satisfied with the working conditions.	1	2	3	4	5

3. Teachers' Work Stress

No	Item	Options				
1	I feel pressure on the number of projects and/or assignments I have.	1	2	3	4	5
2	I feel pressure on the amount of time I spend at work.	1	2	3	4	5
3	I feel pressure on the volume of work that must be accomplished in the allotted time.	1	2	3	4	5
4	I feel pressure on time I experience.	1	2	3	4	5
5	I feel pressure on the amount of responsibility I have.	1	2	3	4	5
6	I feel pressure on the scope of responsibility my position entails.	1	2	3	4	5
7	I feel pressure on the degree to which politics rather than performance affects organizational decisions.	1	2	3	4	5
8	I feel pressure on the inability to clearly understand what is expected of me on the job.	1	2	3	4	5
9	I feel pressure on the amount of red tape I need to go through to get my job done.	1	2	3	4	5
10	I feel pressure on the lack of job security I have.	1	2	3	4	5
11	I feel pressure on the degree to which my career seems.	1	2	3	4	5

4. Teachers' Organizational Citizenship Behavior

No	Item	Options				
1	I am willing to stand up to protect the reputation of the school.	1	2	3	4	5
2	I am eager to tell outsiders good news about the school and clarify their misunderstandings.	1	2	3	4	5
3	I make constructive suggestions that can improve the operation of the company.	1	2	3	4	5
4	I actively attend school meetings.	1	2	3	4	5
5	I am willing to assist new colleagues to adjust to the work environment.	1	2	3	4	5
6	I am willing to help colleagues solve work-related problems.	1	2	3	4	5
7	I am willing to cover work assignments for colleagues when needed.	1	2	3	4	5
8	I am willing to coordinate and communicate with colleagues.	1	2	3	4	5
9	I comply with school rules and procedures even when nobody watches and no evidence can be traced.	1	2	3	4	5
10	I take my job seriously and rarely make mistakes.	1	2	3	4	5
11	I do not mind taking on new or challenging assignments.	1	2	3	4	5
12	I try hard to self-study to increase the quality of work outputs.	1	2	3	4	5
13	I often arrive early and start to work immediately.	1	2	3	4	5
14	I don't use illicit tactics to seek personal influence and gain with harmful effect on interpersonal harmony in the organization.	1	2	3	4	5
15	I don't use position power to pursue selfish personal gain.	1	2	3	4	5
16	I don't take credits, avoids blames, and fights fiercely for	1	2	3	4	5

No	Item	Options
	personal gain.	
17	I don't often speak ill of the supervisor or colleagues behind their backs.	1 2 3 4 5
18	I don't conduct personal business on school time (e.g., trading stocks, shopping, going to barber shops).	1 2 3 4 5
19	I don't use school resources to do personal business (e.g., school phones, copy machines, computers, and cars).	1 2 3 4 5
20	I don't view sick leave as benefit and makes excuse for taking sick leave.	1 2 3 4 5

This is the end of the questionnaire. Thank you again for your support and help! If you are interested in the research or other questions, please contact me (45714507@qq.com).

Appendix B Formal Questionnaire

Formal Questionnaire on the Relationship among Teachers' Organizational Justice Perceptive, Job Satisfaction, Work Stress and Organizational Citizenship Behavior in Chinnese Private Universities

Dear teachers,

Thank you for your time. This is a purely academic research questionnaire, hoping to help relevant theoretical development and practical work by understanding the current situation of teachers in private universities and verifying their academic rationality. Your opinions are very valuable and have important reference value for this study. Please fill in the answers according to your real situation and feelings. This questionnaire is anonymous. The information you provide in the questionnaire is only for the purpose of this study, and will never be disclosed. Please feel free to fill in.

Thanks again for your participation and help in your busy schedule!

DPU International College, Dhurakij Pundit University, Thailand
Dissertation Supervisor: Dr. Yi-Jian Huang
Doctoral candidate in education management: Junru Xiao
April, 2019

I. Basic information (Please tick "√" in the number suitable for individual or school)

   1. Gender: (1) Male   (2) Female
   2. Age: (1) 30 years old or below   (2) 31-40 years old
             (3) 41- 50 years old   (4) Age 51 and above
   3. Services year: (1) 5 years or less   (2) 6 -10 years
                    (3) 11-20 years   (4) more than 20 years
   4. Education: (1) Junior college degree   (2) Bachelor degree
                   (3) Master degree   (4) Doctor degree
   5. School level: (1) Undergraduate universities   (2) Junior college

II. Contents of the questionnaire (Please tick "√" in the appropriate number, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.)

1. Teachers' Perception of Organizational Justice

No	Item	Options				
1	My work schedule is fair.	1	2	3	4	5
2	I think that my leve1 of pay is fair.	1	2	3	4	5
3	I consider my work 1oad to be quite fair.	1	2	3	4	5
4	Overal1, the rewards I receive here are quite fair.	1	2	3	4	5
5	I fee1 that my job responsibilities are fair.	1	2	3	4	5
6	Job decisions are made by the general leader in an unbiased manner.	1	2	3	4	5
7	My genera1 manager makes sure that all employee concerns are heard before job decisions are made.	1	2	3	4	5
8	To make job decisions, my general leader collects accurate and complete information.	1	2	3	4	5
9	When decisions are made about my job, the genera1 leader is sensitive to my personal needs.	1	2	3	4	5
10	When decisions are made about my job, the genera1 leader deals with me in a truthful manner.	1	2	3	4	5
11	When decisions are made about my job, the genera1 leader shows concern for my rights as an employee.	1	2	3	4	5
12	Concerning decisions made about my job, the genera1 leader discusses the implications of the decisions with me.	1	2	3	4	5
13	The general manager offers adequate justification for decisions made about my job.	1	2	3	4	5
14	When making decisions about my job, the genera1 manager offers explanations that make sense to me.	1	2	3	4	5
15	My general manager explains very clearly any decision made about my job.	1	2	3	4	5

2. Teachers' Job Satisfaction

No	Item	Options
1	I can use my professional knowledge and own judgment in work.	1 2 3 4 5
2	I have the chance to do things for other people.	1 2 3 4 5
3	My job provides the way for steady employment.	1 2 3 4 5
4	I feel satisfied with the way my co-workers get along with each other.	1 2 3 4 5
5	This job providesme the chances for advancement.	1 2 3 4 5
6	The school provides me with opportunities for professional development.	1 2 3 4 5
7	I feel satisfied with my pay.	1 2 3 4 5
8	I feel satisfied with the way school policies are put into practice.	1 2 3 4 5
9	I feel satisfied with the competence of my supervisor in making decisions.	1 2 3 4 5
10	I get the praise for doing a good job from my superiors.	1 2 3 4 5
11	I get the praise for doing a good job from my colleagues.	1 2 3 4 5

3. Teachers' Work Stress

No	Item	Options				
1	I feel pressure on the number of projects and/or assignments I have.	1	2	3	4	5
2	I feel pressure on the amount of time I spend at work.	1	2	3	4	5
3	I feel pressure on the volume of work that must be accomplished in the allotted time.	1	2	3	4	5
4	I feel pressure on time I experience.	1	2	3	4	5
5	I feel pressure on the amount of responsibility I have.	1	2	3	4	5
6	I feel pressure on the scope of responsibility my position entails.	1	2	3	4	5
7	I feel pressure on the degree to which politics rather than performance affects organizational decisions.	1	2	3	4	5
8	I feel pressure on the inability to clearly understand what is expected of me on the job.	1	2	3	4	5
9	I feel pressure on the lack of job security I have.	1	2	3	4	5
10	I feel pressure on the degree to which my career seems.	1	2	3	4	5

4. Teachers' Organization Citizenship Behavior

No	Item	Options				
1	I am willing to stand up to protect the reputation of the school.	1	2	3	4	5
2	I am eager to tell outsiders good news about the school and clarify their misunderstandings.	1	2	3	4	5
3	I make constructive suggestions that can improve the operation of the company.	1	2	3	4	5
4	I actively attend school meetings.	1	2	3	4	5
5	I am willing to assist new colleagues to adjust to the work environment.	1	2	3	4	5
6	I am willing to help colleagues solve work-related problems.	1	2	3	4	5
7	I am willing to cover work assignments for colleagues when needed.	1	2	3	4	5
8	I am willing to coordinate and communicate with colleagues.	1	2	3	4	5
9	I do not mind taking on new or challenging assignments.	1	2	3	4	5
10	I try hard to self-study to increase the quality of work outputs.	1	2	3	4	5
11	I often arrive early and start to work immediately.	1	2	3	4	5
12	I don't use illicit tactics to seek personal influence and gain with harmful effect on interpersonal harmony in the organization.	1	2	3	4	5
13	I don't use position power to pursue selfish personal gain.	1	2	3	4	5
14	I don't take credits, avoids blames, and fights fiercely for personal gain.	1	2	3	4	5
15	I don't conduct personal business on school time (e.g., trading stocks, shopping, going to barber shops).	1	2	3	4	5
16	I don't use school resources to do personal business (e.g., school phones, copy machines, computers, and cars).	1	2	3	4	5
17	I don't view sick leave as benefit and makes excuse for taking sick leave.	1	2	3	4	5

This is the end of the questionnaire. Thank you again for your support and help! If you are interested in the research or other questions, please contact me (45714507@qq.com).