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Occupational stress and employee turnover intentions in accounting firms in China

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ABSTRACT: The purpose of this study is to find the relationship between occupational stress and auditor turnover intentions in Chinese accounting firms. Five variables were selected in this study by reviewing the research status and models of turnover intentions in various countries, also according to the specific views of Chinese auditors on turnover intentions. Four hypotheses and a theoretical model were built based on the characteristics of Chinese accounting firms. Samples were collected from Chinese accounting firms via questionnaire. Results found that the relationship between overload quantity of work and occupational stress was positive; the relationship between career progress opportunities and occupational stress, the relationship between occupational stress and organizational commitment, and the relationship between organizational commitment and turnover intentions were negative. According to the empirical results, combined with the particularity of Chinese accounting firms, relevant suggestions were put forward by the author for accounting firms in China to improve work arrangement and job opportunity mechanisms.

Key Words: *occupational stress (OS), overload quantity of work (OQW), career progress opportunities (CPO), organizational commitment (OC), turnover intentions (TI).*

Data Availability: *All data are publicly available from the sources identified in the paper.*

I. INTRODUCTION

Employee turnover was originally defined as "The process by which individuals who derive material benefits from an organization terminate their organizational membership relationships" by Mobley (1977) in his study. Because of the high-cost nature of employee turnover, there has been a persistent trend in accounting research to try to gain insight into employee turnover so that companies can more easily evaluate and manage it (Nouri & Parker, 2013). Similar studies were conducted by researchers in different areas such as Taiwan, Hongkong, Australia, Malaysian and United States (Chi, 2013; Law, 2010; Hall, 2009; Hassan, 2003; Lane & Parkin, 1998). Over nearly four decades, different factors influencing employee turnover had also been proposed and verified, for examples: Role conflict, role ambiguity, and organizational climate (Senatra, 1980); Mentoring programs (Viator, 1999); Career involvement and family involvement (Greenhaus, Parasuraman & Collins, 2001); Flexible work arrangements on professional opportunities (Cohen & Single, 2001); Job burnout (Chong & Monroe, 2015); Organizational justice (George & Wallio, 2017).

Before conducting this research, within the geographical scope of China, the author of this study only found researches about top management turnover in accounting firms (Shen & Lin, 2009) and CEO turnover in accounting firms (Kato & Long, 2005). No researchers have studied the whole field of auditors, and no researchers have studied the impact of occupational stress on the turnover intention of accounting firm employees, especially in China. As a consequence, the author set the title of this paper as occupational stress and employee turnover intentions in accounting firms in China. The paper aims to answer how do occupational stress, its proposed antecedents (overload quantity of work and job progress opportunities) and its proposed effect (organizational commitment) affect the turnover intentions of auditors in Chinese accounting firms directly and indirectly.

The research results of this paper have certain long-term reference value for Chinese accounting firms. On the one hand, the high employee turnover rate of major accounting firms in China has existed for a long time. As Chinese researcher Wang (2016) stated in his paper, most managers in Chinese accounting firms believe that the reason for auditor's resignation is the severe employment situation. They believe their employees use accounting firms as a temporary springboard. However, Wang (2016) argued that those managers have ignored the role of factors that affect the turnover intention of employees. MacLean (2013) proposed in his study that the employee turnover can cause huge losses to any industry, including the increase of discipline costs, experience costs and appropriate knowledge costs, which means that the negative impact of employee turnover is far greater than the positive impact. In this way, if these managers in Chinese firms still do not pay attention to the prevention of turnover intention, the loss of employees will cause larger losses to the firm in the future. On the other hand, as Li (2017) stated in his report, Chinese auditors were always in a high-intensity and high-pressure working environment, and their working pressure will damage the audit quality, thus affecting the firm's reputation. To sum up, the long-term misunderstanding of Chinese managers on employee turnover and the huge work pressure faced by Chinese auditors can provide some basis for the necessity of this study.

This study on Chinese auditors is quite different from similar studies that have been carried out in other countries. Bernstein (2014) pointed out that Chinese culture involves a very different value system and business environment. He thought that China's audit system is unique, of course, different from that of western developed economies, and may be different from that of any other country in the world. Therefore, the author wants to emphasize the influence of national culture on auditor's turnover intention, which confirms the necessity of independent discussion on auditor's turnover intentions in China. Besides, Chinese society also has its own fast-paced and high-intensity work mode. Cyrill (2019) stated that there is a notorious '996' work culture in Chinese society, which means employees work six days a week and twelve hours a day – from 9 am to 9 pm. Under this kind of working style, more than 80% of Chinese employees are overworked, with high levels of mental and physical stress (Chinadaily, 2018), this ratio is very unusual compared to Western countries. The above reasons reflect the uniqueness of this study compared with other countries.

This current study has four main hypotheses. The author assumed the relationship between overload quantity of work and occupational stress, the relationship between career progress opportunities and occupational stress was positive. The author assumed the

relationship between occupational stress and organizational commitment, the relationship between organizational commitment and turnover intentions was negative. On the basis of the questionnaires established by referring to the domestic and foreign literature, combined with the unique characteristics of China's accounting firms, the author compiled a questionnaire, all of which are distributed through WeChat. Samples were collected from different accounting firms in urban areas of China, 108 samples were confirmed as valid finally. After testing the validity and reliability of the data collected, statistical analysis and path analysis were done through AMOS 21.0 software. Results found that the relationship between overload quantity of work and occupational stress was positive; the relationship between career progress opportunities and occupational stress, the relationship between occupational stress and organizational commitment, the relationship between organizational commitment and turnover intentions was negative.

This study has made contributions to previous studies. On the one hand, this study fills in the knowledge gap caused by cultural differences; on the other hand, this study expands the research scope in China, covering all auditors, not just managers. At the same time, based on the research results, this study suggests that Chinese accounting firms should improve their work arrangements and job opportunities standards, so as to reduce auditors' turnover intentions and improve their organizational commitment. From another point of view, the results of this study also provide a certain basis for the selection criteria of fresh graduates.

The simple structure of this paper is as follows. In part II, related concepts were defined based on previous literatures, and you can also find the process of how the author constructed hypotheses and the theoretical model. In part III, the author introduced in detail the way of establishing the questionnaire, the way of obtaining samples and the way of screening these samples. The reliability and validity of actual data were also tested in this part. Part IV presented the results of statistical analysis and path analysis. Part V and VI are discussion and conclusion. The details are listed below:

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

As the research of American researchers Sanders, Fulks, and Knoblett (1995) shows, almost all employees of public accounting firms in the United States recognize that working as an auditor is a very stressful task. In today's economic environment, auditors may face more pressure. At the same time, the study found that turnover intentions (plan to change jobs shortly) is the result of high pressure, which means that when CPAs face the pressure of work itself, organizational characteristics, role in the organization, relationship between colleges and external commitment, they will feel the occupational stress (first-level result) physically and mentally, and as one of the most important secondary results, organizational commitment will suffer serious negative feedback. Another study done by Riketta (2002) shows that good organizational commitment can lead to lower turnover intention and a lot of positive feedback, such as high performance and high quality of work. More importantly, Chinese researcher Zhang and Lee (2010) found that there are consistency and strong correlation between occupational stress and

employee turnover intentions in China, so it is of great significance to study the buffer between stress-turnover intention.

More specifically, this paper aims to demonstrate that employees' occupational stress has negative feedback on employees' turnover intention by influencing organizational commitment and to find out its antecedents or causes. According to the model built by Sanders, Fulks and Knoblett (1995), the overload quantity of work leads to an increase in occupational stress. Also, career progress opportunities may influence employees' occupation stress. To verify the feasibility of the theory proposed above, the author of the study conducted separate interviews with a group of professional auditors on the job in the Pan-China accounting firm in China. They were asked the same question: *if you want to leave your firm, what are the two most important reasons?* They were surprisingly consistent on the underlying reasons for "possible departures". Their answers focused on two factors: (1) *Excessive workload and excessive travel frequency*; (2) *the gap between a large number of promotion opportunities and the difficulty of the promotion*. Their answers were very consistent with the model in Sanders, Fulks, and Knoblett's paper. Therefore, the author decided to study overload quantity of work and career progress opportunities as another two variables to research in this paper. More specific literature review and hypothesis building process are shown as follows:

2.1 Concept Definition & Hypothesis Development

2.1.1 Overload quantity of work and occupational stress

In early studies, occupational stress was defined as negative emotions and physical reactions when job-specific requirements did not match the employee's maximum ability or needs. The study also shows that occupational stress is the main reason for employees to leave the company. (Sauter et al., 1999). Just a few years later, Sanders, Fulks, and Knoblett (1995) also proved in their research that work stress beyond the scope of endurance can have adverse effects on a person's daily behavior, and also cause a person's health level to decrease. In the same study, they stated that greater occupational stress can also have devastating consequences, such as a significant reduction in productivity, an unusual employee turnover rate, and extreme career dissatisfaction. In a later study conducted by Colligan and Higgins (2006), Occupational workplace tension (occupational stress) can be defined as a change in a person's physical or mental state, which is passively generated and used as an individual defense measure in a workplace that poses a challenge or threat to the employee. With the continuous pain brought by the workplace, employees may have physical and psychological barriers, which may lead to the reduction of workability.

Studies proposed that an overload quantity of work was linked to occupational stress. Overburden or quantitative workload (overload quantity of work) refers to work that exceeds an individual's capacity range and time limit and that specific individual cannot complete well (Katz & Kahn, 1978). In more recent studies, Demerouti et al. (2001) believed that as a kind of hard occupational passive demand, workload is consistent with the relationship between occupational demand and resource stress model, which shows that

once the occupational demand (such as workload) exceeds the resource stress limit, the psychological and physical pain suffered by individuals will multiply.

Auditing is regarded as one of the most stressful jobs in every country. Jelinek R. and Jelinek K. (2008) studied this situation in their research. They gave some reasons for this problem and cited some important facts. This is mainly because every audited business company needs to hire a wise and highly skilled accounting firm. And they hope that the firm they worked with this year can submit reports faster and cheaper than the firm of the previous year. In response, audit firms have had to rely more and more on extending their employees' work schedules and rigid requirements to improve their productivity because of more stringent time and quality requirements of customers. As a result, managers often require auditors to deal with a large number of customers at the same time, which increases a lot of unreasonable overtime, overloaded work and a lot of travel. The "busy season" consumes more and more private time every year, increases the pressure on the family members of the auditors, and then increases the auditor's guilt, and makes the higher pressure continue (Jelinek, 2008). In China, the audit is considered as a special service, which has been described as low job satisfaction and high work pressure. Generally speaking, in the peak season of audit every year, the more audit services auditors undertake, the more difficult or complex the audit project is, and the greater the work pressure. Employees often have the intention to leave because of the huge work pressure in the busy season (Yan & Xie, 2016). The following hypothesis summarizes the above argument:

H1: There is a positive association between overload quantity of work and perceptions of occupational stress

2.1.2 Career progress opportunities and occupational stress

The debate on the definition of "career" is reflected in psychology, human resources, sociology, and organizational behavior. Arthur et al. (1989) defined the word career as "the evolving sequence of a person's work experiences over time". This definition puts up with as opposed to a prevailing definition that illustrated a more detail point, for example, psychological opinions seeing the profession (career) in sessions of experiences or individual interests, or sociological opinions seeing the profession (career) in sessions of relative stature and available societal functions (Khapova et al., 2007). Career progress opportunities (career growth) is defined in the current study as: " Through a series of work, including more advanced or diversified individual activities that are constantly updated, we can obtain a broader cognition or higher skills, greater responsibility and reputation, and higher personal income " (Bloomsbury Business & Management Dictionary 2007, p. 1353). Besides, in personal development, career development is accompanied by a person's life-long psychological and behavioral changes, as important as the environmental effects that affect his career. Therefore, career growth involves career model, decision-making model, integration of life position, expression of values and individual creation of life role self-concept (Herr & Cramer, 1996).

In the field of audit, the work pressure of auditors mainly comes from the contradiction between the limited professional development opportunities and the huge audit workload in a limited time (López & Peters, 2012). A clear plan to seek professional

development opportunities may help employees focus on their work and reduce their workload. Therefore, if employees cannot get promotion opportunities and salary increases opportunities from their current company, they will be dissatisfied with their current work and often try to change jobs (Paliwal, 2018). Also, According to the terminology of the self-determination theory established by Gagné and Deci (2005), realization of external career opportunities (i.e. income satisfaction, salary increase, profits), inherent occupation possibilities (i.e. work obligation, skill consumption, and autonomy), and social work possibilities (SWP) (i.e. communication environment between colleagues, or supervisors and managers) are fundamental resources to cut stress perception (SP) down. The hypothesis below follows from these arguments:

H2: There is a negative association between career progress opportunities and perceptions of occupational stress

2.1.3 Occupational stress and organizational commitment

Organizational commitment is the link between employees and organizations. The definitions of organizational commitment can be divided into three types: (1) emotion-oriented commitment to the institution; (2) cost confirmation commitment based on leaving institution; (3) glorious responsibility commitment based on staying in the institution (Meyer & Allen, 1997). Therefore, an employee's emotional commitment to the organization is defined as an emotional commitment, which includes the identification and participation of the organization (Fields, 2002) and excellent personal performances at the institution correlated with superlative health conditions (Chraif & Stefan, 2010).

The career progress opportunities may affect the occupational stress of employees. The study conducted by (Cicei, 2012) in Romanian public organizations generated an assumption that a high level of stress can lead to low organizational commitment, which can contribute to voluntarily employee turnover and may lead to a low overall firm's performance. The assumption was proved in the study. The study conducted by vakola and Nikolaou (2005) also concluded that there was a negative correlation between occupational stress and employees' attitudes towards change, which indicated that individuals with too much pressure showed less commitment and increased unwillingness to accept organizational change interventions. The most important influence on the change of posture comes from the bad working relationship, which emphasizes the importance of occupational stress source to the change of position. The related hypothesis appears below:

H3: There is a negative association between occupational stress and organizational commitment

2.1.4 Organizational Commitment and turnover intentions

In a large number of studies, lack of organizational commitment is regarded as the psychological result of organizational situations including stressors, as one of the predictors of turnover intention, and as the intermediary factor between role stressors and withdrawal behavior. In a word, organizational commitment is the result of role stress and

anxiety, a predictor of withdrawal behavior, which will directly lead to an increase in turnover intention (Glazer & Kruse, 2008).

According to the work demand-control model proposed by Karasek (1979), work demand and work control are two important parts of work pressure. He also suggested that the magnitude of work pressure depends on the interaction between work demand and work control. Among them, work demand refers to work difficulty and workload, including workload, time and role conflict. Job control reflects an individual's response to job needs. In short, it's a way of liberation, and the most extreme way is to leave the company. Dwyer and Ganster (1991) proposed that job control (in this paper-turnover intentions) can significantly improve employee satisfaction and personal positive emotions. Therefore, from another point of view, turnover is to some extent the performance of low organizational commitment. The following hypothesis summarizes the argument:

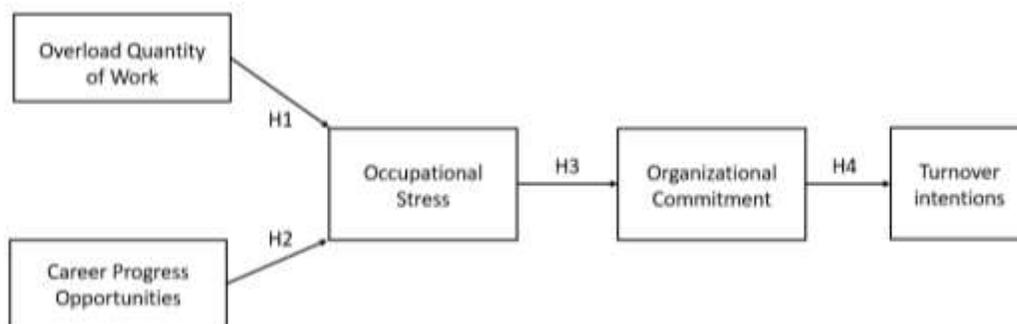
H4: There is a significant negative association between organizational commitment and turnover intentions.

2.2 Theoretical Model

In a word, personal work pressure is caused by time pressure, workload pressure, performance evaluation pressure and career development pressure (Yan & Xie, 2016). This kind of pressure and the sense of work fatigue it brings will affect the auditor's organizational commitment, and then affect the auditor's intention to leave the job.

According to the theoretical model shown in Fig.1, occupational stress is the key variable in the whole model. The research firstly deals with the proposed antecedents of occupational stress (overload quantity of work and career progress opportunities), and then finds the relationship with its repercussions (turnover intentions and organizational commitment). The antecedents were partially selected based upon the experiences of the auditors who are working in accounting firms in China or who once worked accounting firms in China. By talking with auditors of different levels of Chinese accounting firms and those college students who have the employment planning of accounting firms in China, the author puts forward the importance of the degree of overload, workload and career development opportunities in the consideration of employees' career. These two variables are also confirmed in 3.1.1 and 3.1.2.

FIGURE 1
Theoretical Model



III. RESEARCH METHODOLOGY

3.1 Data Source and Sample Selection

A questionnaire was sent to some senior auditors in accounting firms in urban areas of China. These senior auditors also summoned their subordinates to fill out questionnaires. The participants of this questionnaire were from different accounting firms includes ZhongHui, Pan, LiXin, PWC, Deloitte, KPMG. A large part of the samples came from Pan-China accounting firm cause the author of this study once interned in this firm. All participants were invited to fill in the questionnaire via WeChat. The participants attached to the questionnaire filled out the questionnaire voluntarily and they were guaranteed privacy and anonymity, they were also assured that the survey results will only be used for this study. Because the data collected are not from the same accounting firm, the applicability of the analysis results may not be extensive. However, the author believes that this form of data collection could reflect the problems faced by the whole audit industry in China to some extent, rather than being limited to some form of firm.

During the data collection period, a total of 142 responders participated in the survey, but after the late system screening, 34 papers were considered invalid and excluded from the scope of the study due to too short response time, too remote area of participants or other reasons. In the end, the responses of 108 participants were considered valid and the effective response rate was 108/142 (76%). Regarding these respondents, 67 out of 108 them were female, accounting for 62%, while the rest of them were male, accounting for 38%. Almost half of these respondents work in Big Eight Firms and 37% work in Big Four firms. Also, 41% of respondents are less than 25 years old, 43% of them between 25 and 35 years old, the rest of them above 35 years old. Besides, 44% of respondents work for in his or her firm for less than one year, 43% of them between 2 to 4 years, and the rest of them for more than 4 years. One thing should be emphasized that resignation intention will occur at various working stages of employees, so this questionnaire does not limit the number of years of work of the auditors.

3.2 Measures

The variables measured in this study include those in the theoretical model: overload quantity of work, career progress opportunities, occupational stress, organizational commitment, and turnover intentions. The questionnaire set up in this study contains 28 questions in total. The related scales appear in the Appendix.

- 1) To measure the *overload quantity of work*, the current study developed measures based upon interviews with employees in the Pan-public accounting firm in China. A sample item from the scale is: "I often have several projects going on at the same time which drives me crazy. " Six Likert-scale questions were set in this group. Responses range from one (strongly disagree) to seven (strongly agree).
- 2) *Career progress opportunities* were assessed using part of a scale initially developed by Bedeian, Kemery, and Pizzolatto (1991). A sample item from the scale is: "I believe that my present job has aided my growth in my career." What needs to be mentioned is that the author carefully modified the content of the survey according to the actual situation of Chinese accounting firms. Measures based upon interviews with employees also added as part of the scale. A sample item from the scale is: "I think my salary and

bonus are proportional to my workload.” Six Likert-scale questions were set in this group. Responses range from one (strongly disagree) to seven (strongly agree).

- 3) *Occupational stress* was assessed using a scale initially developed by Parker and DeCotiis (1983). A sample item from the scale is: “I have felt fidgety or nervous as a result of my job.” It is important to note that some of the problems have been subtly adapted to the regional culture. Six Likert-scale questions were set in this group . Responses range from one (strongly disagree) to seven (strongly agree).
- 4) Regarding *organization commitment*, this study used part of a nine-item scale developed by Mowday, Steers, and Porter (1979). A sample item is “I talk up this organization to my friends proudly as a great organization to work for.” Also, what needs to be mentioned is that the author carefully modified the content of the survey according to the actual situation of Chinese accounting firms. Six Likert-scale questions were set in this group. Six Likert-scale questions were set in this group . Responses range from one (strongly disagree) to seven (strongly agree).
- 5) Employee *turnover intentions* were measured referencing a three-item scale adopted from London and Howat (1978). A sample item is: "For the foreseeable future, I plan to stay with my current firm." Again, It is important to note that some of the problems have been subtly adapted to the regional culture. Finally, the scale includes four questions. Four Likert-scale questions were set in this group. The response scale ranges from one (strongly disagree) to seven (strongly agree).

3.3 Reliability Analysis

Reliability refers to the stability and consistency of the measured results by the scale measurement tools. Cronbach's alpha was established by Lee Cronbach in 1951. It provides a way to measure scale or test internal consistency; it is represented by numbers between 0 and 1 (Tavakol, 2011). The closer the reliability of the scale is to 1, the higher the reliability of the measured results, the smaller the measurement error. Since some items must be deleted and modified after factor analysis (shown in 3.2), the reliability test of the scale should be carried out for all variables. See the discriminant criteria Table 1

TABLE 1
The Reliability Index of the Subscales Criterion

<u><i>Cronbach's Alpha</i></u>	<u><i>Subscale Reliability</i></u>
.900 and above	Ideal
.800 to .899	Well
.700 to .799	Better
.600 to .699	Fair
.500 to .599	Can but low
.500 and below	Low best delete

The reliability analysis was conducted on the variables overload quantity of work, career progress opportunities, occupational stress, organizational commitment, and turnover intentions, respectively. The results showed that the Cronbach's Alpha coefficient of overload quantity of work is 0.944, the Cronbach's Alpha coefficient of career progress

opportunities is 0.941, the Cronbach's Alpha coefficient of the occupational stress is 0.954, the Cronbach's Alpha coefficient of the organizational stress is 0.955, and the Cronbach's Alpha coefficient of the turnover intentions is 0.927. After a comparison with Table 1, it can be found all the above variables have ideal reliability, in another word, they have good internal consistency. Further research is warranted.

3.4 Validity Analysis

To assess the construct validity of the variables in the theoretical model, Exploratory Factor Analysis (EFA) was performed on the items in the scales. Factor analysis is composed of several statistical skills the purpose of which is to make simpler complex sets of data. In the social sciences, factor analysis is utilized to correlations commonly between variables (Kline, 2014). In short, factor analysis can be used to extract the common factors between variables and construct fewer and more complex data structures. Exploratory Factor Analysis (EFA) is a muscular and commonly-used gadget for enquiring into a psychometric instrument's underlying varying formation. There, nonetheless, is plenty of dispute in the social sciences concerning the methods that are applied in EFA (Osborne & Fitzpatrick, 2012).

Before the extraction of the factors, several tests should be used to assess the suitability of the respondent data for factor analysis. These tests include Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity (Williams et al., 2010). Kaiser-Meyer-Olkin (KMO) standard for the sample's adequacy is an index comparing the extent of the partly correlation coefficient and observed correlation coefficient (Kalaycı, 2010). The KMO index ranges from 0 to 1, with 0.50 considered suitable for factor analysis, the higher is the rate, better is the data that are set for factor analysis (Tabachnick et al., 2007). Bartlett's Test of Sphericity should be significant ($p < .05$) for factor analysis to be suitable (Hair et al., 1988). See Table 2 for KMO discriminant criteria.

TABLE 2
Criteria of KMO Index Value

<u><i>KMO Value</i></u>	<u><i>Discriminant</i></u>	<u><i>Suitability of factor analysis</i></u>
≥ 0.90	Excellent for factor analysis	Excellent
$\geq 0.80, < 0.90$	Suitable for factor analysis	Good
$\geq 0.70, < 0.80$	Factor analysis is acceptable	Moderate
$\geq 0.60, < 0.70$	Factor analysis was grudgingly performed	Ordinary
$\geq 0.50, < 0.60$	Not suitable for factor analysis	Poor
< 0.50	Very unsuitable for factor analysis	Unacceptable

The KMO and Bartlett's test results of the scale are shown in Table 3, and the total variance interpretation results are shown in Table 3. As can be seen from the table, the KMO value of structural elements is 0.843, which is greater than 0.800, indicating that factor analysis can be conducted for this variable. The Bartlett's Test of Sphericity is significant ($p < .05$) for factor analysis to be suitable

TABLE 3
KMO Measure of Sampling Adequacy and Bartlett's Test of Sphericity

<u>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</u>		.843
	The approximate chi-square	2942.879
<i>Bartlett's Test of Sphericity</i>	Degrees of freedom	378
	significant	.000

Cumulative percentage of variance is another area of disagreement in the factor analysis approach, particularly in different disciplines, for example, psychology, the natural sciences, and the humanities (Henson & Roberts, 2006). Factors should be deleted when at least 95% of the variance is explained and the explained variance is commonly as low as 50-60%, according to Hair in the natural sciences (Hair et al., 1988). In Table 4, factors with an eigenvalue greater than 1 were extracted from the survey, and 5 common factors were extracted in total (overload quantity of work, career progress opportunities, occupational stress, organizational commitment, and turnover intentions). The explained variance was 81.019%, which is more than 50% and less than 95%, indicating that the factors retained after extraction were relatively ideal, indicating that the scale had high construction validity.

TABLE 4
Total Variance Explained (SPSS Output)

	<u>Initial Eigenvalue</u>			<u>Sum of the Extracted Loads</u>			<u>Sum of Squares Rotating Loads</u>		
	<u>SUM</u>	<u>PV</u>	<u>C%</u>	<u>SUM</u>	<u>PV</u>	<u>C%</u>	<u>SUM</u>	<u>PV</u>	<u>C%</u>
<i>Factor 1</i>	6.184	22.084	22.084	6.184	22.084	22.084	4.976	17.770	17.770
<i>Factor 2</i>	5.241	18.719	40.804	5.241	18.719	40.804	4.958	17.707	35.477
<i>Factor 3</i>	4.699	16.781	57.585	4.699	16.781	57.585	4.728	16.885	52.363
<i>Factor 4</i>	3.421	12.219	69.804	3.421	12.219	69.804	4.690	16.749	69.111
<i>Factor 5</i>	3.140	11.214	81.019	3.140	11.214	81.019	3.334	11.907	81.019

Extraction method: Principal Component Analysis.
PV: Percentage of variance; C%: Cumulative %

Interpretation involves the researcher studying which variables can be attributed to a factor and giving a topic or a name to that factor (Williams et al., 2010). The labeling of factors is a subjective, theoretical, and inductive process (Pett et al., 2003). Henson and Roberts noted that “ the meaningfulness of latent factors is ultimately dependent on researcher definition” (Henson & Roberts, 2006). It can be seen from Table 5 that the factor load of all questions is greater than 0.5. Significantly, these labels or constructs show the conceptual and academic purpose (Williams et al., 2010).

Hair believes that when the sample size is greater than 50, the item factor load exceeding 0.3 is important, exceeding 0.4 is important, and exceeding 0.5 is very important (Hair et al., 1988). In this study, the item factor load should above 0.5 as the screening standard to ensure the scale has good construct validity. Factor 1 contains six questions from OC1 to OC6, factor 2 contains six questions from OS1 to OS6, factor 3 contains six questions from OQW1 to OQW6, factor 4 contains six questions from CPO1 to CPO6, and factor 5 contains four questions from TI1 to TI4. The constructs of the five factors are in line with the preset constructs and questions in this study. Factor 1 is "Organizational commitment", factor 2 is "Occupational Stress", factor 3 is "Overload Quantity of work", factor 4 is "Career Progress Opportunities" and factor 5 is "Turnover intentions".

TABLE 5
Rotated Component Matrix

<u>Groups</u>	<u>Questions</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>	<u>Factor 4</u>	<u>Factor 5</u>
<u>OQW</u>	<i>OQW1</i>			.861		
	<i>OQW2</i>			.920		
	<i>OQW3</i>			.839		
	<i>OQW4</i>			.881		
	<i>OQW5</i>			.878		
	<i>OQW6</i>			.873		
<u>CPO</u>	<i>CPO1</i>				.830	
	<i>CPO2</i>				.904	
	<i>CPO3</i>				.879	
	<i>CPO4</i>				.859	
	<i>CPO5</i>				.898	
	<i>CPO6</i>				.896	
<u>OS</u>	<i>OS1</i>		.886			
	<i>OS2</i>		.903			
	<i>OS3</i>		.856			
	<i>OS4</i>		.920			
	<i>OS5</i>		.942			
	<i>OS6</i>		.887			
<u>OC</u>	<i>OC1</i>	.874				
	<i>OC2</i>	.909				
	<i>OC3</i>	.900				
	<i>OC4</i>	.910				

TABLE 5 (Continued)

	<i>OC5</i>	.912	
	<i>OC6</i>	.879	
	<i>TI1</i>		.931
<i>TI</i>	<i>TI2</i>		.878
	<i>TI3</i>		.885
	<i>TI4</i>		.920

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. The rotation has converged after 5 iterations.

OQW: Overload Quantity of work; CPO: career progress opportunities; OS: occupational Stress;

OC: organizational commitment; TI: turnover intentions.

3.5 Path Analysis

Path analysis is used to access the hypotheses. Linear causal models are conveniently built by using the approach of path coefficients that are put forward by Sewall Wright. Path analysis helps make unambiguous conventional regression calculations' rationale (Duncan, 1966). There are three regressions for the theoretical model: (1) occupational stress is regressed on its antecedents: overload quantity of work and career progress opportunities; (2) organizational commitment is regressed on its antecedents: overload quantity of work, career progress opportunities and occupational stress; and (3), turnover intentions is regressed on its antecedents: overload quantity of work, career progress opportunities, occupational stress, and organizational commitment.

IV. RESULTS

Table 6 shows descriptive statistics for the variables, which include Min value, Max value, Mean value, and standard deviation. No significant outliers are found.

TABLE 6
Descriptive statistics

<i>Variables</i>	<u><i>Min</i></u>	<u><i>Max</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>
<i>Overload quantity of work</i>	6.00	42.00	17.8692	9.18375
<i>Career progress opportunities</i>	8.00	42.00	19.0000	9.36473
<i>Occupational Stress</i>	6.00	42.00	17.6729	9.99979
<i>Organizational commitment</i>	9.00	42.00	18.2430	9.80743
<i>Turnover intentions.</i>	4.00	28.00	11.3832	6.41585

n=108.

AMOS (structural equation model analysis software, It has a series of basic analysis methods such as variance analysis, covariance, and hypothesis test) was used to test the hypothesis model proposed in this paper. According to Table 7 and Figure 2, both overload quantity of work and career development opportunities have a significant positive impact on occupational stress, that is, the greater the workload, the greater the work pressure, the more career opportunities there are, the more pressure there is to work, H1 is supported, however, H2 is not supported. Besides, the results illustrate that overload quantity of work has a stronger impact on occupational stress than career development opportunities. Also, occupational stress has a significant negative impact on organizational commitment, H3 is supported. Organizational commitment has a significant negative impact on turnover intention, H4 is supported. A more detailed data study results are shown below.

TABLE 7
Path Analysis Results

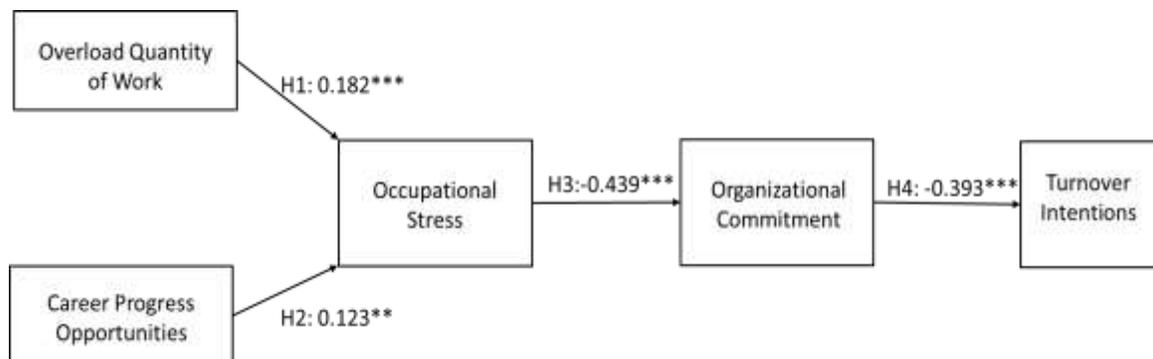
<i>Equation</i>	<i>Dependent variable</i>	<i>Independent variables</i>	<i>Associated hypothesis</i>	<i>Path coefficient</i>	<i>T-value</i>	<i>P-value</i>	<i>R-square</i>
(1)	<i>OS</i>	<i>OQW</i>	H1	0.182	2.671	***	0.216
		<i>CPO</i>	H2	0.123	2.265	0.008**	
(2)	<i>OC</i>	<i>OS</i>	H3	-0.439	4.618	***	0.478
(3)	<i>TI</i>	<i>OC</i>	H4	-0.393	3.806	***	0.357

OQW, overload quantity of work; CPO, career progress opportunities; OS, occupational stress; OC, organizational commitment; TI, turnover intentions.

*, **, *** Denote two-tailed statistical significance at the 10 percent, 5 percent, and 1 percent levels respectively.

n=108.

FIGURE 2
Model with Path Coefficients



*, **, *** Denote two-tailed statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

The regression results for the path analysis appear in Table 7 and are shown in Figure 2. For each regression equation in Table 7, three regression assumptions were found to be valid (H1, H3, H4), while one regression assumption was found to be invalid (H2). As Table 7 illustrated, the result partly supports the theoretical model (for H1, H3, and H4). For H1, the assumed relationship between overload quantity of work and occupational stress, the path coefficient of 0.182 is statistically significant ($p < 0.001$). For H2, the assumed link between career progress opportunities and occupational stress should be a negative relationship (a positive path coefficient), but the path coefficient value is a positive number, which is the opposite of the hypothesis. However, the path coefficient of 0.123 is statistically significant ($p < 0.01$). Therefore, this meaningful result will be discussed in the following paper. Regarding H3, it proposed a relation between occupational stress and organizational commitment. The path coefficient is -0.439 and is significant ($p < 0.001$). The assumed relationship between organizational commitment and turnover intentions, which is H4, has a path coefficient of -0.393 which is significant ($p < 0.001$)

TABLE 8
Indirect effects.

<u><i>Paths</i></u>	<u><i>Calculations</i></u>	<u><i>Results</i></u>	<u><i>t-Values*</i></u>
OQW→OS→OC	0.182*(-0.439)	-0.080	-2.157*
CPO→OS→OC	0.123*(-0.439)	-0.054	-1.854*
OS→OC→TI	(-0.439)*(-0.393)	0.173	3.688*
OQW→OS→OC→TI	0.182*(-0.439)*(-0.393)	0.031	
CPO→OS→OC→TI	0.123*(-0.439)*(-0.393)	0.021	

*, **, *** Denote two-tailed statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

OQW, overload quantity of work; CPO, career progress opportunities; OS, occupational stress; OC, organizational commitment; TI, turnover intentions.

* To illustrate the techniques of Sobel (1982), the first path in Table 8 (OQW→OS→OC) was considered. The coefficient value for the indirect effect is calculated by multiplying the unstandardized regression coefficients for OQW in equation (1) of Table 7; OS in equation (2) of Table 7. The coefficient value is divided by its standard error to determine the t-value reported in Table 8. The standard error of the indirect effect (OQW→OS→OC) is estimated using the following equation: $(b_2^2 s_1^2 + b_1^2 s_2^2)^{1/2}$; b1 unstandardized regression coefficient for OQW in equation (1) in Table 7; s1 standard error of regression coefficient for OQW; b2 unstandardized regression coefficient for OS in equation (2) in Table 7; s2 standard error of regression coefficient for OS.

Further analysis suggests several mediations in the theoretical model. The indirect effect for each potential mediation is determined by multiplying the relevant path coefficient. Table 8 shows all the calculations. The t-value was calculated by a method provided by Sobel (1982). The result suggests that career progress opportunities mediate the relations between the sub-variables (overload quantity of work and career progress opportunities) and organizational commitment. For overload quantity of work, the

mediated path is $OQW \rightarrow OS \rightarrow OC$, where OQW represents overload quantity of work, OS represents occupational stress, and OC represents occupational stress. The indirect effect of OQW on OC has a t-value of -2.157 which is significant ($p < 0.1$, Table 8). For career progress opportunities, the mediated path is $CPO \rightarrow OS \rightarrow OC$, where CPO represents career progress opportunities. The indirect effect of CPO on OC has a t-value of -1.854 which is significant ($p < 0.1$, Table 8). The result also suggested that organizational commitment mediates the relation between occupational stress and turnover intentions. The related path is $OS \rightarrow OC \rightarrow TI$. As Table 3 indicates, the t-value for this path is 3.688 which is significant ($p < 0.1$, Table 8).

To sum, there are two ways in which organizational commitment is affected indirectly. One is that overload quantity of work negatively affects organizational commitment by affecting occupational stress, or career progress opportunities negatively affect organizational commitment by affecting occupational stress. However, occupational stress has a positive effect on turnover intentions by affecting organizational commitment. In general, the turnover intention is positively affected by two indirect paths, overload quantity of work and career progress opportunities.

V. DISCUSSION

According to the result part, there are four main results. They are listed as follows:

- 1) There is a positive association between overload quantity of work and perceptions of occupational stress, the overload quantity of work also has an indirect effect on organizational commitment and turnover intentions. This result confirms H1;
- 2) There is a positive association between career progress opportunities and perceptions of occupational stress, the career progress opportunities also has an indirect effect on organizational commitment and turnover intentions. This result is opposite to H2, which will be discussed later;
- 3) There is a negative association between occupational stress and organizational commitment, occupational stress also has an indirect effect on turnover intentions. This result confirms H3;
- 4) There is a negative association between organizational commitment and turnover intentions. This result confirms H4.

To sum up, three of the four hypotheses mentioned above have been proved to be true. One hypothesis is denied by the actual data, and the authentication rate is assumed to be 75%.

One unexpected result appeared in this study, this results show that there is a positive relationship between career progress opportunities and occupational stress, which means that when there are more career progress opportunities, auditors in China will feel more stressful. American researcher López and Peters (2012) had built a link for us between career progress opportunities and occupational stress, as mentioned above, the work pressure of auditors mainly comes from the contradiction between the limited professional development opportunities and the huge audit workload in a limited time in the field of audit. This theory has proved for us clearly that few career progress opportunities will lead to a high level of occupational stress. Also, several types of research

conducted similar topics in different fields and different countries, for example, Korean Nurse (Hurrell, 1988); UK Teachers (Travers et al., 1993); US Social workers (Bradley, 1995). However, the author of the current study found three limitations of those studies. First, these surveys are conducted in a relatively early stage. With the development of society and time, people's attitudes towards job opportunities should change to some extent. Second, the unique culture of the country will affect the working style, thus determining the impact of job development opportunities on personal emotions. Third, different industries have different promotion standards, the difficulty of promotion is not right, and the influence on the work pressure of employees will be different. As Yan and Xie (2016) pointed out in their paper, for Chinese auditors, more job opportunities mean longer working hours than colleagues, simultaneous work projects and more difficult work implementation, which will lead to huge work pressure. By the way, Asian people sometimes do work harder and more eager for promotion opportunities than people in western developed countries, part of the reason lies in the compact living habits and ethnic culture (Benjamin et al., 2007). In addition, personal interviews were done to several auditors in Pan-accounting firms. The interviewees all said that more room for promotion would, in part, put more pressure on them because they would sacrifice their time off to achieve their goals. All of the above can provide some basis for explaining the unexpected result.

Limitations

There are limitations to this study, and they are listed as follows. Firstly, a more professional and precise approach was considered in the measurement part, SEM (structural equation modeling), however, the sample size (108) was not big enough for this method (Kline, 2015) and the path analysis method was chosen finally. This situation may lead to the result of this paper not ideal in accuracy. Secondly, the effect of gender differences on the results was not taken into account. Thirdly, the nature (public & private) of the respondent's firm was not considered. If these two factors are taken into account in the analysis of the results, the results of this study will be more reasonable and humanized.

Reliability & Validity

The reliability and validity of the data collected have been tested in the methodology part (see 3.3 and 3.4), according to Table 1-5 and related cited studies, all data used in the statistical analysis and path analysis (shown in results) has been proved reliable and valid.

Theoretical Contribution

The results of this current study suggest that there are two ways for Chinese accounting firms to increase organizational commitment and reduce the turnover intentions of auditors: On the one hand, reduce the quantity of work; On the other hand, balance career progress opportunities. These results provide new impetus for Chinese accounting firms to strengthen the work distribution mechanism and staff training system. Although Chinese accounting firms were known for their high intensity and high pressure, managers should reasonably allocate each auditor's workload in their daily work, and rule-makers should provide corresponding management mechanisms. In this way, reducing the workload of auditors can increase their positive emotions to some extent, improve work efficiency,

reduce error rate, and improve the reputation of the firm. Reasonable promotion mechanism and salary evaluation mechanism should also be established. Managers should always pay attention to the employees' working moods, the comparison among employees, and the rationality of employees' salaries and bonuses. A reasonable balance should be struck between work control and work demands, to suppress work pressure within a reasonable range and effectively manage employees' turnover intentions (Karasek, 1979).

Results generated also fill the gap between this study and studies conducted by authors in other countries. Within the geographical scope of China, there were only researches aimed at top managers (Shen & Lin, 2009) and CEOs (Kato & Long, 2005), the current study fills the gap by expanding the survey group to cover the entire group of auditors. Besides, this study takes Chinese culture into account, filling a gap in the impact of cultural differences on different variables, for example, the gap between a study conducted in Australia (Hall, 2009) and a study conducted in China (Yan & Xie, 2016). Finally, due to the prevalence of work stress among Chinese auditors, the study also makes some fundamental contributions to future researchers.

Furthermore, while the current study investigated how perceptions affect the attitudes of existing employees, a related research question is how these perceptions affect potential employees, such as fresh graduates looking for their first job. In assessing the desirability of a company, candidates may consider the company's reputation for training. Graduates are also advised to fully understand the company's workload, job opportunities, corporate ethics management, evaluation system, and other aspects before entering the company to avoid unnecessary negative emotions and personal losses in the future.

VI. CONCLUSION

The purpose of this study was to explore the direct and indirect effects of occupational stress and the underlying causes of occupational stress on employee turnover intentions. Based on previous studies and relevant models, the current study selected five variables: occupational stress, career progress opportunities, overload quantity of work, organizational commitment and turnover intentions. At the same time, this study analyzed the correlational relationship between them, built hypothesis, and finally established a theoretical model partly based on the special situation of Chinese accounting firms. Data were collected through a questionnaire. Statistical analysis and path analysis were done through the AMOS 21.0 software. The results showed that the relationship between overload quantity of work and occupational stress was positive; the relationship between career progress opportunities and occupational stress, the relationship between occupational stress and organizational commitment, the relationship between organizational commitment and turnover intentions was negative.

Most managers in Chinese Accounting firms believe that the reason for the high turnover rate in their firms is the severe employment situation and that employees regard accounting firms as a temporary springboard. This view is one-sided, these managers ignore the potential factors acting on employees' turnover intention. If the firm still does not pay attention to the reasons for staff turnover, staff turnover will inevitably bring huge losses to the firm. Therefore, this research is of long-term value to Chinese accounting

managers. This research has also made innovative contributions to the past literature. However, limitations including limited sample size, gender differences, firm nature still exists. Further studies may be able to take these limitations into account to make more precise studies and make a greater contribution to China's audit industry.

APPENDIX: SURVEY QUESTIONS

What is your gender?

- A. Male
- B. Female

What is your age?

- A. ≤ 25
- B. 26-35
- C. 36-45
- D. ≥ 46

How many years have you worked in your firm ?

- A. 0-6 months
- B. 6 months-1 year
- C. 1-2 years
- D. 2-4 years
- E. >4 years

What type of firm do you work for?

- A. Big four
- B. Big Eight
- C. Others

Overload Quantity of Work (OQW)

- (1) Most of the time, I end the workday feeling exhausted and lost.
- (2) I often have several projects going on at the same time which drives me crazy.
- (3) I often work overtime on weeknights, including weekends during the busy season.
- (4) I sometimes fail to meet the deadline set by my superiors.
- (5) I travel frequently and continuously, I couldn't take it physically or emotionally.
- (6) I think my average working hours are much longer than my peers in other fields.

Career Progress Opportunities (CPO)

- (1) My business has regular internal training, and professionals are responsible for staff training.
- (2) I can constantly acquire knowledge from my daily work, which makes me feel very meaningful.
- (3) I believe that my present job has aided my growth in my career planning.
- (4) I think my salary and bonus are proportional to my workload.
- (5) I believe my salary and bonus will have a lot of room for improvement in this firm.
- (6) I think my annual salary is competitive with my peers in other fields.

Occupational Stress (OS)

- (1) I have felt fidgety or nervous as a result of my job.
- (2) Working here makes it hard to spend enough time with my family and friends.
- (3) I feel guilty when I take time off from the job, I didn't even know what to do except work, and I didn't want to do anything except study CPA on my day off.
- (4) I frequently get the feeling I am married to the company, but I'm not happy about it.
- (5) I sometimes dread WeChat alerts or ringtones, as it is likely to be work-related.
- (6) Many people at my level in the firm get burned out by the job demands of clients and supervisors.

Organizational commitment (OC)

- (1) I talk up my firm to my friends proudly as a great organization to work for.
- (2) I would accept any type of assignment to keep working for my firm in the future.
- (3) I am extremely glad that I chose this firm to work for over others that I was considering at the the time I joined.
- (4) I find that my values and the firm's values are very similar and I care about the fate of this firm.
- (5) I am willing to put in a great deal of effort beyond that normally expected to help this firm be successful.
- (6) For me, this is the best organization of any job related to my major.

Turnover intentions (TI)

- (1) I'm sure I won't be with this firm forever, and I won't be in the auditing business forever.
- (2) I plan to leave the firm for the foreseeable future.
- (3) At some point, I had the idea of changing jobs.
- (4) I sometimes browse other companies' recruitment pages for the next job.

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