

RESEARCH ON THE INFLUENCE MECHANISM OF BINARY JOB STRESS ON KNOWLEDGE-BASED EMPLOYEES' PROPENSITY TO LEAVE THE COMPANY

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Abstract

In today's era of rapid development of the knowledge economy, the core of competition between enterprises is the competition for talent, especially knowledge-based employees. They hold the lifeblood of technological competitiveness, are the carrier of knowledge and the key driving force of enterprise development. Because of the distinctive autonomy and innovative characteristics of knowledge-based employees, the enterprise is more and more detailed performance appraisal and strict attendance, which brings them a lot of work pressure. Existing research has not reached a unanimous conclusion as to whether work pressure plays a facilitating or hindering role in knowledge-based employees' tendency to leave. The reason for this is mainly related to the nature of work pressure itself. This study takes knowledge-based employees in small and medium-sized enterprises as the research object, draws on the two-dimensional structure theory of pressure, and categorizes work pressure into challenging pressure and hindering pressure, in order to explore the impact of the two types of pressure on the tendency of knowledge-based employees to leave their jobs.

Keywords: Binary Job Stress, Positive/Negative Affect, Career Commitment, Propensity to Leave the Company

1. INTRODUCTION

In today's era, knowledge has become a key productivity, how to effectively manage knowledge-based employees has become an important topic in the current enterprise human resource management.

Although existing theoretical models of turnover have proposed multiple antecedent variables, such as the effects of job stress, job satisfaction, and organizational commitment on employees' propensity to leave their jobs (Jiang et al., 2012; Niederman et al., 2010), some studies have found that other perceived characteristics of employees, such as whether the job is challenging, whether the job tasks are compliant, and whether there is sufficient space for personal career development and growth, etc., significantly influence employees' turnover behavior (Yu, W. and Zhang, P., 2018; Li, P. & P. et al., 2023). Obviously, the research on the issue of triggering knowledge-based employees' tendency to leave and further generating exit behavior needs to be further explored.

In past research on work stress, there has been a great divergence in the conclusions reached by scholars. This disagreement has attracted much attention, and many researchers have tried to find out the reasons for this disagreement. Cavanaugh et al. (2000) put forward a novel viewpoint that the characteristics and nature of work stress itself is the key to the disagreement.

They have developed the concepts of challenging and hindering stress in terms of the "good and bad" attributes of stress, which provides a new perspective for understanding work stress. In fact, in a well-functioning organization, obstructive stress is usually not the normal working environment for knowledge workers. In particular, employees engaged in research and development or management work are more often faced with challenging stress. Challenging stress brings about a sense of pressure and at the same time promotes their growth. This kind of stress is what employees need to overcome in order to achieve their goals, and provides opportunities for individual growth, while at the same time it can lead to negative outcomes such as exhaustion, anxiety, and frustration (Rodell & Judge, 2009). Fredrickson's (2001) study found that challenging work stress has a positive significance for individuals, and it can stimulate positive emotions in individuals. Therefore, job stress does not always bring negative effects. Therefore, the relationship between job stress, positive/negative affect and career commitment and turnover tendency is an issue that deserves to be explored in depth, with multiple possibilities and complexities.

2. LITERATURE REVIEW AND RESEARCH HYPOTHESIS

In real-life organizational management, there is a widely shared view that "pressure creates motivation" and "development under pressure". This concept has a great impact on the way organizations are managed and on their effectiveness. Stress does have a profound effect on individual attitudes and behaviors. However, different types and degrees of stress can lead to significant differences in the performance and mindset of individuals in their work. This study will delve into the impact of a range of responses in the mind and behavior of knowledge workers on their tendency to leave their jobs due to different types of job stress.

2.1 Binary job stress and propensity to leave the organization

Challenging pressure has a positive impact on individuals' work attitudes and behaviors. When individuals are faced with challenging pressure, a drive to overcome difficulties arises within them, which motivates them to complete their work tasks with greater efficiency and even to show greater adaptability in the face of difficulties. The opposite of challenging pressure is hindering pressure. This kind of pressure stems from the difficulties and frustrations that individuals encounter in the process of completing tasks, and it negatively affects individuals' work attitudes and behaviors (Yuan Ling and Luo Ying, 2014). Empirical studies have shown that challenging pressure can positively affect individuals' subjective well-being, while obstructive pressure has a significant negative effect (Liu Yun et al., 2019). In addition, challenging pressure has a positive effect on the work prosperity of corporate scientists and technologists, but this effect is smaller than the negative effect of obstructive pressure (Wan Jin et al., 2021). The findings of Zhengdong Li and Samson Kuo (2021) also showed that challenging stress has a negative effect on employees' tendency to leave their jobs. Individuals in an emotionally depleted situation will experience changes in their work attitudes and behaviors, with the tendency to leave being one of the many possible consequences (Luo, Liangpin et al., 2023).

In summary, from the results of existing studies on dichotomous job stress, it is clear that challenging stress has a positive effect on the variables of employees' subjective well-being, innovative behavior, creativity, job performance and career growth. And obstructive pressure mainly comes from problems in the work environment, career development opportunities, and limited work autonomy. When knowledge-based employees face obstructive factors such as lack of career development opportunities, low work autonomy or participation in decision-making, poor work environment and atmosphere, and lack of organizational recognition and organizational support, they will have negative emotions such as frustration, loss and helplessness. These negative emotions can lead to reduced employee motivation and engagement within the organization, which may further create a tendency to leave.

Based on the above analysis, the following hypotheses are proposed:

H1a Challenging stress has a negative effect on the propensity to leave the company

H1b Obstructive stress has a positive effect on the propensity to leave the company

2.2 Relationship between binary job stress and positive/negative affectivity

Work stress is not only an objective event or situation, but also a stimulus that can trigger an individual's emotional response. This kind of emotional event has a non-negligible impact on employees' work status and efficiency. Emotional event theory emphasizes that a specific emotional response will determine an individual's work behavior. Yu Kun and Liu Xiaoyan (2021) showed that challenging stressors can positively predict employees' emotional exhaustion, which means that when facing challenges, employees may feel tense and anxious, but this emotional response is more of a positive state of tension, which can help individuals to mobilize more psychological resources to cope with challenges.

Currently, there are fewer studies on the relationship between different types of job stress on positive/negative affect among knowledge-based employees in small and medium-sized enterprises (SMEs). Since obstructive pressure can often hinder employees' goal achievement and career growth, it can lead to negative emotions (Liu Dege et al., 2010), and the study by Jizhen Li and Li Lun (2018) also obtained the same conclusion that obstructive pressure can lead to negative emotions in entrepreneurs. Knowledge-based employees are often faced with challenging work tasks, and the challenging pressure perceived by employees will stimulate their work potential, believing that they are capable of performing their work and meeting their self-career development needs, which can motivate individuals to exhibit positive organizational behaviors such as creative thinking to solve problems, which results in innovative behaviors (Wang Jiayan et al., 2022), and to generate the sense of self-efficacy that they have the ability to cope with the challenging pressures, generate self-efficacy, produce proactive behaviors in the work process, and enhance positive emotions based on gaining a sense of accomplishment.

Based on the above analysis, the following hypotheses are proposed:

H2a Challenging stress has a positive effect on positive emotions

H2b Obstructive stress has a positive effect on negative emotions

2.3 Relationship between positive/negative affect and career commitment

Looking at the results of existing research on positive/negative affect and career commitment, the conclusions are not consistent. On the one hand Martin (1997) presents a view on the impact of individual psychological states on career development, stating that people adjust their effort level according to their state of mind when facing career challenges. On the contrary, when individuals are in a negative state of mind, in order to change the situation, they work hard on a sustained basis, which in turn enhances career commitment. On the other hand Hastie (2001) states that affective states have a significant impact on an individual's cognition and decision making. When individuals are in a negative affective state, they tend to make more pessimistic judgments and choices.

However, an individual's emotion regulation is shaped by the sociocultural context in which he or she lives. In different socio-cultural contexts, different emotion regulation strategies may be adopted. (Kitayama & Masuda, 1995; Kitayama et al., 2004). Factors such as an individual's gender, ethnicity, socioeconomic background, and family background profoundly influence how they view and understand themselves, and the world they live in, from the time they are infants. And these factors, in fact, epitomize the overall system of the society and culture. (Spinrad, 2004; Mesquita et al., 2014).

In the context of traditional Chinese culture, the concept of face plays a crucial role in an individual's interaction with others. Face is not only related to an individual's dignity and image, but also to the individual's status and identity in society. Therefore, the individual's need for face is particularly prominent, and this need is, to a certain extent, a relatively stable personality trait of the individual (Baogongmin and Zhao Zhuojia, 2009). The study of Huang Haiyang et al. (2021) pointed out that when individuals' face is threatened, they develop a strong social motivation to save face and prevent losing face. Moreover, this concept of face, in moderation, can stimulate the motivation and creativity of knowledge-based employees (Dai Wanliang et al., 2022). Based on the theoretical chain of "event-emotion-attitude-behavior" of affective event theory, this study argues that knowledge workers, due to their specific qualities and autonomy, are more concerned about maintaining their image and dignity. When faced with difficult situations, this need may become a motivation for them to keep working hard in order to show their ability and value so as to get rid of the poor working environment. Meanwhile, in traditional Chinese culture, there is a deeply rooted notion that "learning has no end, and one learns from one's old age". This concept emphasizes the core value of lifelong learning, which motivates people to keep learning and progressing throughout their lifelong journey in order to adapt to the ever-changing society and environment. Knowledge workers in a positive emotional state will also be deeply influenced by this cultural concept, and will always maintain a humble and prudent attitude in their pursuit of career development, constantly pursuing excellence and continuously improving their professionalism.

Based on the above analysis, the following hypothesis is proposed:

H3a Positive affect has a positive effect on career commitment

H3b Negative affect has a positive effect on career commitment

2.4 Relationship between career commitment and propensity to leave the organization

With the deepening of the market economy and changes in the concept of employment, the career pattern of knowledge-based employees is no longer limited to sticking to a certain organization, but transformed into a process of pursuing personal growth and value realization. This change has led to knowledge-based employee mobility becoming a common phenomenon. (Huo Jingbo and You Jianxin, 2015), therefore, in their pursuit of career success, knowledge employees must properly handle the balance between the desire to achieve career success and their attitude towards the organization they currently work for. More and more organizations have established reciprocity mechanisms (Ling Wen wheeling et al., 2019), which makes the relationship between the organization and the employees closer and closer, and their interests are intertwined with each other. This close relationship helps to increase employees' organizational commitment and enhance team cohesion. However, weighing the association between career success and organizational attitudes has become a critical issue in the minds of knowledge workers. This is mainly because individuals need to be clear about their primary goal in pursuing their careers: whether they are committed to climbing to the top of their careers or pursuing a stable job. This decision will have a direct impact on how employees judge their attitudes toward the organization, which in turn affects their job satisfaction and loyalty. Knowledge-based employees often have a desire to pursue the pinnacle of their careers, and as a result, the turnover rate of highly educated employees is showing a significant upward trend (Zhao Jun et al., 2018).

Previous empirical studies have shown that some work attitude variables such as job satisfaction and organizational commitment can effectively predict employees' turnover intentions (Muchinsky & Morrow, 1980; Chan & Hellman, 1997). It has also been shown that when the degree of unwillingness to change career is high (Luo Liangpin et al., 2023), i.e., when career commitment is high, the tendency to leave the job increases either due to challenging pressures or due to career development bottlenecks caused by obstructive pressures. Therefore, employees with high career commitment are more concerned about and responsible for their careers and are more likely to have a high propensity to leave due to limited career growth.

Based on the above analysis, the following hypotheses are proposed:

H4 Career commitment positively affects the propensity to leave the organization

2.5 Chain mediation of positive/negative affect and career commitment

Affective event theory, as an important theoretical framework, provides an in-depth account of the mechanisms linking events, emotions, attitudes, and behaviors in the workplace (Duan Jinyun et al., 2011). The basic idea of this theory is that stressful events in the workplace trigger positive or negative emotional experiences and reactions in individuals, which in turn affect their work attitudes and behaviors (Weiss & Cropanzano, 1996). On this basis, affective reactions are seen as key factors that play a mediating role between work events, attitudes, and behavioral intentions. Workplace stressors, whether challenging or obstructive, are viewed as emotional events that trigger affective responses in employees.

Challenging stressors tend to elicit positive affective responses, which in turn motivate employees to show stronger innovation, dedication, career commitment, organizational commitment, and better performance at work. On the contrary, hindering stressors trigger negative affective responses, which may lead to compromised work attitudes and behaviors of employees. Li Yue and Wang Chongming (2012) showed that positive emotions have significant positive and predictive effects on positive work attitudes and behaviors such as innovation, dedication, career commitment, organizational commitment, and job performance.

Through the "event-emotion-attitude-behavior" theoretical chain of affective event theory, for knowledge-based employees, according to the pressure interaction theory, when the work pressure is recognized as a challenging pressure, it tends to stimulate the employees' desire to challenge. After that, employees' positive emotions are enhanced, negative emotions are reduced, and the level of professional commitment is increased in the process of obtaining a sense of accomplishment.

However, in the quest for better quality career development, this can lead to an increased propensity to leave. And obstructive pressure will not only frustrate their motivation and reduce their positive emotions, but also enhance their negative emotions.

When knowledge-based employees are faced with obstructive pressure, they are prone to become pessimistic and even doubt their own abilities, thus generating negative emotions. However, as a group of intellectuals, due to the traditional Chinese concept of the need to save face, when knowledge-based employees feel dissatisfied with their current work situation, they will work harder or improve their professional abilities in the hope of escaping from a poor work environment by increasing their career commitment.

However, this sustained effort may drain employees' energy and enthusiasm and put them into a state of exhaustion. Over time, this exhaustion may lead to a further increase in the propensity to leave.

Based on the above analysis, the following hypotheses are proposed:

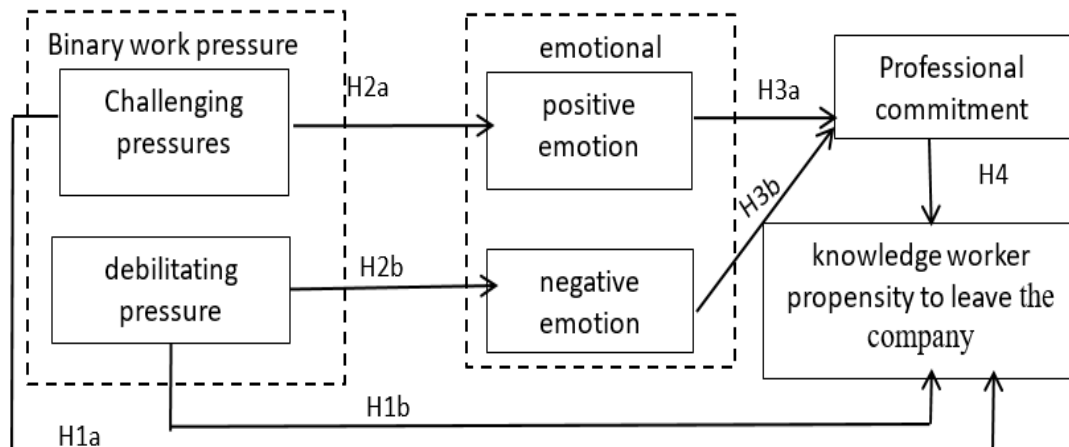
H5a Positive affect and career commitment chain mediate the relationship between challenging stress and propensity to leave.

H5b Negative Affect and Career Commitment Chain-Mediate the Relationship between Challenging Stress and Propensity to Leave.

3. RESEARCH MODELS

Based on the core assumptions of Stress Interaction Theory, Affective Event Theory and Self-Determination Theory, this study explores the process of the influence of dichotomous job stress on turnover tendency. By constructing the chain mediation model, the intrinsic action mechanism of dichotomous job stress on knowledge-based employees' tendency to leave the job is revealed, and the boundaries of its action are explored.

The role model of binary job stress on knowledge-based employees' tendency to leave is as follows:



4. STUDY DESIGN

4.1 Data sources

Scientific and rigorous empirical research design is a key part of the whole research process, which plays a crucial role in ensuring the reliability and validity of the research results and conclusions. In empirical research, data collection is an indispensable step, and it is particularly important to design a scientific and reasonable measurement tool to realize effective data collection. The data for this study comes from the active employees of more than 30 small and medium-sized enterprises in Beijing, Shanghai, Hangzhou, Shenzhen, Guangzhou, Hefei, Changsha, and Zhengzhou, covering the three industry sectors of industry, information transmission, and software and information technology services, with the size of the active employees reaching 35 or more.

4.2 Measurement of variables

4.2.1 Binary working pressure Measurement

Cavanaugh et al. (2000) not only proposed a two-dimensional structure for binary job stress, but also developed a measurement scale containing 11 items. There are six question items for challenging stress; and five for hindering stress. A 5-point Likert scale was used, with higher scores indicating higher levels of stress. Cronbach's alpha coefficients were 0.87 and 0.75, respectively (McCauley et al., 1994). Although this scale was designed with managers as subjects, subsequent studies have shown that the scale can also measure general employee stress and has demonstrated some cross-cultural applicability (Liu Dege et al., 2011; Li Qiaoling et al., 2014; Haar, 2006). It is currently a more authoritative tool for measuring binary job stress. This scale was used in this study.

4.2.2 Propensity to leave Measurement

The present study utilized the Intention to Leave Scale developed by Kelloway et al. (1999). The scale has a total of 4 items and is unidimensional. A 5-point Likert scale was used, and the higher the total score, the higher the level of an individual's intention to leave.

4.2.3 Positive/Negative Emotions Measurement

The assessment of positive and negative affect relies heavily on the Positive and Negative Affect Scale developed by Watson (1988). The scale consists of 10 items, 5 of which measure positive affect and 5 of which measure negative affect. A 5-point scoring system was used. The measure of positive/negative affect in this study was to measure the work experience of knowledge workers during the past week. This temporal processing technique has been utilized in previous related studies (Madjar et al. 2002).

4.2.4 Career Commitment Scale

Measurement of career commitment has been an important research topic in the field of organizational behavior and human resource management. In order to accurately and effectively assess career commitment, researchers have commonly used the Career Commitment Scale developed by Blau and Gary (2011). The scale has been widely recognized and applied in empirical studies. For example, the internal consistency coefficient of the scale in Klassen and Chiu's (2011) study was 0.87. An internal consistency coefficient of 0.82 was also obtained in Ivztan et al.'s (2013) study, further confirming the reliability of the scale.

4.2.5 Sense of Organizational Support Scale

In order to avoid losing patience with the questionnaire due to the excessive number of questions, the "sense of organizational support" was based on a scale developed by Liu et al. (2008), which is based on the scale developed by Eisenberger in 1986 and contains five items.

4.2.6 Selection of control variables

By combing through previous related theories and literature, it is found that there is theoretical and empirical evidence to support the existence of a relationship between the six variables involved in this study, namely, turnover propensity, challenging stress, obstructive stress, positive/negative emotions, career commitment and sense of organizational support, and the demographic variables of gender, age, highest educational level, years of working experience, and average monthly income (Cheng Junjun et al. 2015; Chen Dinxiang, Liu Gangcheng, 2019; Li Pengbo et al. 2023), which may affect the results of the study. Since the object of this study is knowledge-based employees in small and medium-sized enterprises rather than manual laborers, the effect of gender on the tendency to leave will not be particularly prominent. To improve the accuracy of the study, the four variables of age, highest education, years of work experience, and average monthly income are selected as control variables in this study.

5. EMPIRICAL TEST

5.1. Descriptive statistical analysis

The sample presents the following characteristics: in terms of gender, there are more men than women, accounting for 59.16% and 40.84% of the total number of valid samples, respectively; in terms of age, the age group of 30-39 years old has the largest number of employees, amounting to 243, which accounts for 63.61% of the total number of people, and the age group of less than 30 years old has the smallest number of people, which is only 12 people; In terms of the highest education, 237 people with bachelor's degree and 145 people with master's degree and above, accounting for 62.04% and 37.96% respectively; from the point of view of the average monthly income, the monthly income of 8,000-10,000 yuan is the most, 205 people, accounting for 53.66% of the total number of people; it may be related to the fact that the majority of the employees are between the ages of 30-39, with a certain amount of money. 39 years old and have some working experience. In terms of enterprise type, the information transmission industry and software and information technology service industry have more people, 131 and 195 respectively, accounting for 34.29% and 51.05% of the total number of people.

5.2 Correlation analysis

Table 5.1 AVE Square Roots and Correlation Coefficients for Variables (N=382)

variant	M	SD	1	2	3	4	5	6	7	8	9	10
Control Variable												
1. Age	2.82	0.44	N/A									
2. Highest education	2.28	0.47	-0.02	N/A								
3. Years of work experience	2.82	0.48	0.29**	-0.02	N/A							
4. Average monthly income	2.83	0.68	0.03	0.04	0.12*	N/A						
Key Variables												
5. Challenging pressures	3.01	0.91	0.02	-0.03	-0.02	0.01	0.74					
6. Obstructive stress	3.39	0.76	-0.05	0.02	-0.03	0.04	0.16**	0.74				
7. Positive emotions	3.14	0.75	0.03	0.01	-0.02	-0.03	0.19**	-0.21**	0.73			
8. Negative emotions	3.17	0.87	-0.02	0.01	0.01	0.02	0.30**	0.24**	0.45**	0.72		
9. Professional commitment	3.21	0.92	0.02	-0.06	0.04	0.06	0.35**	0.26**	0.32**	0.46**	0.73	
10. Propensity to leave	2.98	0.74	0.03	-0.04	0.08	0.06	-0.30**	0.16**	0.22**	0.30**	0.25**	0.72

Note: M=Mean, SD=Standard Deviation; * p<0.05 ** p<0.01; diagonal bolded numbers are the square root of the variable AVE, N/A means not suitable for analysis, and other numbers represent correlation coefficients.

As can be seen in Table 5.1, challenging stress has a significant negative correlation with the propensity to leave (correlation coefficient = -0.296, p < 0.01), obstructive stress has a significant positive correlation with the propensity to leave (correlation coefficient = 0.164, p < 0.01), and the correlation between each variable and the propensity to leave is significant (p < 0.01). There is preliminary support for the direct effect of binary job stress on knowledge workers' propensity to leave the company.

5.3. Regression Analysis

5.3.1 Stratified regression analysis of propensity to leave the organization

Table 5.2: Stratified Regression Tests for Propensity to Leave (N=382)

variant	propensity to leave the company			
	M1	M2	M3	M4
<i>intercept (the point at which a line crosses the x- or y-axis)</i>	2.634** (7.132)	3.375** (9.035)	2.704** (6.874)	1.557** (4.147)
<i>control variable</i>				
(a person's) age	0.008 (0.091)	0.023 (0.261)	0.042 (0.500)	0.034 (0.460)
highest level of education	-0.066 (-0.803)	-0.078 (-1.000)	-0.079 (-1.043)	-0.071 (-1.066)
years of experience	0.106 (1.281)	0.092 (1.170)	0.098 (1.271)	0.099 (1.468)
Average monthly income	0.062 (1.105)	0.066 (1.222)	0.055 (1.044)	0.045 (0.970)
Key Variables				
Challenging pressures		-0.241** (-6.063)	-0.270** (-6.874)	-0.409** (-11.109)
Debilitating Pressure			0.213** (4.521)	0.171** (3.669)
Professional commitment				0.175** (4.293)
R ²	0.011	0.099	0.145	0.351
Adjustment R ²	0.000	0.087	0.132	0.335
F value □	<i>F</i> (4,377)=1.031, p=0.391	<i>F</i> (5,376)=8.255,p =0.000	<i>F</i> (6,375)=10.641, p=0.000	<i>F</i> (9,372)=22.349, p=0.000

Note 1: Data sources are compiled for this study.

Note 2: N=382, * p<0.05 ** p<0.01, t-values inside parentheses.

The results of the stratified regressions of binary job stress, positive/negative affect and career commitment on the propensity to leave are shown in Table 5.2. After controlling for the employee's age, highest level of education, years of experience, and average monthly income, challenging stress had a significant negative effect on the propensity to leave (M2: $\beta = -0.241, P < 0.01$), and hindering stress had a significant positive effect on the propensity to leave (M3 : $\beta = 0.213, P < 0.01$) and hypotheses H1a and H1b are supported.

Career commitment has a significant positive effect on the tendency to leave (M6: $\beta = 0.175, P < 0.01$) and hypothesis H4 is supported.

5.3.2 Stratified Regression Analysis of Positive/Negative Emotions

Table 5.3: Stratified Regression Tests for Positive/Negative Emotions (N=382)

variant	positive emotion		negative emotion	
	M1 □	M2	M1 □	M2
intercept (the point at which a line crosses the x- or y-axis)	3.143** (8.338)	2.660** (6.785)	3.120** (7.147)	1.532** (3.278)
control variable				
(a person's) age	0.060 (0.656)	0.051 (0.564)	-0.038 (-0.354)	-0.034 (-0.339)
highest level of education	0.017 (0.199)	0.025 (0.302)	0.023 (0.236)	0.036 (0.399)
years of experience	-0.042 (-0.497)	-0.033 (-0.400)	0.007 (0.074)	0.029 (0.316)
Average monthly income	-0.034 (-0.585)	-0.036 (-0.636)	0.028 (0.423)	0.012 (0.198)
Key Variables				
Challenging pressures		0.157** (3.769)		0.255** (5.468)
debilitating pressure				0.225** (4.027)
R ²	0.003	0.039	0.001	0.128
Adjustment R ²	-0.008	0.026	-0.010	0.114
F value □	<i>F</i> (4,377)=0.240, p=0.915	<i>F</i> (5,376)=3.039, p=0.011	<i>F</i> (4,377)=0.092, p=0.985	<i>F</i> (6,375)=9.204, p=0.000

Note 1: N=382, * p<0.05 ** p<0.01, t-values inside parentheses.

Note 2: Data sources are compiled for this study.

The results of the hierarchical regression of binary job stress on positive/negative affect are shown in Table 5.3. After controlling for the employee's age, highest level of education, number of years of experience, and average monthly income, there is a significant positive effect of challenging stress on positive affect (Positive Affect M2: $\beta=0.157$, $P<0.01$), and there is a significant positive effect of hindering stress on negative affect (Negative Affect M3: $\beta=0.225$, $P<0.01$), and hypotheses H2a and H2b were supported.

5.3.3 Stratified regression analysis of career commitment

The results of the hierarchical regression of binary job stress, positive/negative affect on career commitment are shown in Table 5.4. After controlling for employees' age, highest level of education, years of experience, and average monthly income, there is a significant positive effect of positive affect on career commitment (negative affect M4: $\beta=0.418$, $P<0.01$), and negative affect has a significant positive effect on career commitment (M5: $\beta=0.257$, $P<0.01$), hypotheses H3a and H3b were supported.

Table 5.4: Stratified regression test for career commitment (N=382)

variant	Professional commitment		
	M1	M2	M3□
intercept (the point at which a line crosses the x- or y-axis)	3.175** (6.917)	-0.136 (-0.278)	-0.032 (-0.066)
control variable			
(a person's) age	0.053 (0.471)	0.043 (0.446)	0.056 (0.594)
highest level of education	-0.130 (-1.283)	-0.124 (-1.432)	-0.130 (-1.535)
years of experience	-0.023 (-0.224)	0.020 (0.224)	0.007 (0.076)
Average monthly income	0.086 (1.234)	0.078 (1.301)	0.072 (1.224)
Key Variables			
positive emotion		0.418** (7.402)	0.274** (4.319)
negative emotion			0.257** (4.626)
R ²	0.009	0.279	0.318
Adjustment R ²	-0.002	0.265	0.303
F value □	<i>F</i> (4,377)=0.816, p=0.516	<i>F</i> (7,374)=20.671, =0.000	<i>F</i> (8,373)=21.749, =0.000

Note 1: Data sources are compiled for this study.

Note 2: N=382, * p<0.05 ** p<0.01, t-values inside parentheses.

5.4 Intermediaries Effects Analysis

Table 5.5: Chained Mediation Effect Model Tests for Positive Affect and Career Commitment (N=382)

variant	M1	M2	M3
	positive emotion	Professional commitment	propensity to leave office
intercept (the point at which a line crosses the x- or y-axis)	3.440** (8.385)	-0.136 (-0.278)	1.485** (3.871)
control variable			
(a person's) age	0.028 (0.322)	0.043 (0.446)	0.023 (0.301)
highest level of education	0.026 (0.331)	-0.124 (-1.432)	-0.062 (-0.910)
years of experience	-0.040 (-0.493)	0.020 (0.224)	0.108 (1.567)
Average monthly income	-0.023 (-0.423)	0.078 (1.301)	0.046 (0.985)
Key Variables			
Challenging pressures	0.191** (4.662)	0.240** (5.211)	-0.391** (-10.444)
positive emotion		0.418** (7.402)	0.273** (5.748)
Professional commitment			0.215** (5.313)
R ²	0.100	0.279	0.319
Adjustment R ²	0.085	0.265	0.305
F value □	<i>F</i> (6,375)=6.927, p=0.000	<i>f</i> (7,374)=20.671, p=0.000	<i>F</i> (8,373)=21.874, p=0.000

Note 1: Data sources were compiled for this study. Note 2: N=382, *p<0.05 ** p<0.01.

The results of testing the chain mediated effect model with positive affect and career commitment between challenging stress and tendency to leave are shown in Table 5.5, which shows that this mediated effect model is significant with an F-value of 21.874 and a p-value of 0.000. For the chain mediated effect path 'TZYL⇒JJQG⇒ZYCN⇒LZQX'. The testing procedure was as follows: model 6 with PROCESS provided by SPSS with challenging stress as the independent variable, positive affect and career commitment as the chained mediator variables, and age, highest level of education, years of experience, and average monthly income as the control variables. The mediating effects were tested using Bootstrap sampling, and the results showed that the path indirect effect with positive affect as the mediating variable was 0.082 (95% CI = [0.044,0.126]), the path indirect effect with career commitment as the mediating variable was 0.077 (95% CI = [0.042,0.118]), and the path indirect effect with positive affect and career commitment as the chain mediating variable had a path indirect effect of 0.027 (95% CI=[0.013,0.044]), and the total of all indirect effects was 0.186 (95% CI=[0.125,0.251]), with none of the 95% BootCI intervals containing zero, suggesting that the chain mediating role of positive affect and career commitment between challenging stress and propensity to leave the workforce is valid. Hypothesis H5a was supported.

Table 5.6 Chained Mediation Effect Model Tests for Negative Affect and Career Commitment (N=382)

variant	M1	M2	M3
	negative emotion	Professional commitment	propensity to leave office
intercept (the point at which a line crosses the x- or y-axis)	1.532** (3.278)	0.727 (1.603)	2.038** (5.730)
control variable			
(a person's) age	-0.034 (-0.339)	0.067 (0.704)	0.040 (0.529)
highest level of education	0.036 (0.399)	-0.127 (-1.467)	-0.065 (-0.962)
years of experience	0.029 (0.316)	-0.008 (-0.089)	0.090 (1.312)
Average monthly income	0.012 (0.198)	0.064 (1.066)	0.038 (0.802)
Key Variables			
debilitating pressure	0.225** (4.027)	0.164** (2.992)	0.103* (2.389)
negative emotion		0.376** (7.602)	0.259** (6.229)
Professional commitment			0.207** (5.115)
R ²	0.128	0.284	0.329
Adjustment R ²	0.114	0.271	0.314
F value □	<i>f</i> (6,375)=9.204, p=0.000	<i>f</i> (7,374)=21.191, p=0.000	<i>F</i> (8,373)=22.847, p=0.000

Note 1: Data sources were compiled for this study. Note 2: N=382, *p<0.05 ** p<0.01.

The results of the chain mediated effect model test of negative affect and occupational commitment between obstructive job stress and tendency to leave the job are shown in Table 5.6. The data show that the F value of this mediated effect model is 22.847 and the P value is 0.000, which makes the model significant. The mediating path 'ZAYL⇒XJQG⇒ZYCN⇒LZQX' was tested by the process of "Chain mediation effect test of positive affect and occupational commitment between challenging stress and tendency to leave the job", and the results showed that negative affect and occupational commitment had a significant effect on the relationship between obstructive stress and tendency to leave the job. The results showed that the chain mediating effect of negative affect and career commitment between discouraging stress and the tendency to leave was established. Hypothesis H5b is supported.

6. RESULTS AND DISCUSSION

6.1 Findings

This study centers on the core issue of "what kind of impact does binary work pressure have on employees' tendency to leave and how does it affect them in the group of knowledge-based employees in small and medium-sized enterprises", constructs a theoretical model of the impact of binary work pressure on the tendency to leave and verifies the process mechanism of the impact of binary work pressure on the tendency to leave of knowledge-based employees through empirical analyses. We also validate the process mechanism of binary job stress affecting knowledge employees' tendency to leave through empirical analysis. Specifically, the concept of dichotomous job stress is defined based on the stress interaction theory, and the impact of dichotomous job stress on the tendency to leave through positive/negative emotions and career commitment is explored based on the affective event theory. The specific findings of this study are summarized below:

1. Challenging pressure has a negative effect on knowledge-based employees' tendency to leave, and obstructive pressure has a negative effect on the tendency to leave. For those knowledge workers who actively deal with challenges, they often see challenging pressure as an opportunity to improve their abilities and demonstrate their personal value. According to the stress interaction theory, after assessing challenging stress, knowledge employees usually perceive that it helps to improve their positive rewards in terms of job performance and career growth, and that there is information available to solve the difficulties encountered in the process of achieving their goals. Thus, motivated by challenging pressures, knowledge workers are more inclined to take on difficult job challenges and adopt proactive strategies to gain opportunities for personal growth and development, which may lead to a lower propensity to leave the company. In the face of obstructive pressures, knowledge workers may feel stuck in a quagmire of career confusion and unable to find a breakthrough. Knowledge workers' propensity to leave may be boosted by obstructive pressures. In this scenario, knowledge employees may begin to seek ways to relieve stress or adjust work strategies to better accommodate obstructive stress. When knowledge workers feel that stress is getting in the way of achieving work goals and personal growth,

they tend to view this stress as obstructive, which in turn leads to negative work attitudes and a higher propensity to leave. For knowledge workers, a good work environment and challenging stress go hand in hand. This suggests that stress at work does not always bring negative effects, and that clarifying the different kinds of stress and their links to outcome variables will help us to gain a deeper understanding of stress at work.

2. Positive/negative affect and career commitment act as chain mediators between dichotomous job stress and the tendency to leave. This study empirically analyzes the roles of positive/negative affect and occupational commitment in the relationship between dichotomous job stress and the tendency to leave, and the results show that positive affect and occupational commitment act as chain mediators between challenging job stress and the tendency to leave, while negative affect and occupational commitment act as chain mediators between obstructive job stress and the tendency to leave. The chain mediation process is as follows. Based on the "event-emotion-attitude-behavior" framework of the affective event theory, we can have a clearer understanding of the psychological and behavioral changes of knowledge-based employees when they face different work pressures. When work pressure is regarded as challenging pressure, it can effectively stimulate the intrinsic challenging desire of knowledge-based employees. The fulfillment of this desire not only brings employees a sense of accomplishment, but also further enhances their positive emotions and reduces their negative emotions, thus enhancing their level of professional commitment. At the same time, this enhanced positive emotion and elevated professional commitment may also prompt knowledge-based employees to pursue a broader career development space. This may, to some extent, lead to an increase in their tendency to leave. On the contrary, when knowledge employees face obstructive pressure, their motivation and self-confidence may be seriously undermined. This stress not only undermines their positive emotions, but also exacerbates the development of negative emotions. They may even become pessimistic and self-doubting, questioning their own professional abilities. It is worth noting, however, that under the influence of the traditional Chinese culture of "face", knowledge workers often choose to work harder or to improve their professional abilities in the face of job dissatisfaction. In this way, they hope to improve their professional commitment and get rid of the unfavorable working environment. However, such sustained efforts and struggles may consume a lot of energy and enthusiasm of employees, putting them into a state of physical and mental exhaustion. In the long run, this exhaustion is likely to further exacerbate their tendency to leave their jobs.

6.2 Discussion

Although this study has achieved some results, there are still some shortcomings and limitations in some aspects, which provide direction and room for improvement in future research. These shortcomings and limitations are elaborated below:

1. This study focuses on knowledge workers in small and medium-sized enterprises. In order to gain an in-depth understanding of this group, a questionnaire survey was used to collect data. However, this method has certain limitations. First, in terms of sample selection, although every effort has been made to expand to cities with different levels of development,

it still may not be able to fully cover all types of knowledge-based employees. Secondly, in terms of research methodology, the questionnaire survey was used, which may lead to the results being influenced by the subjective factors of the respondents.

In future research, improvements can be made in the following aspects: firstly, differentiate between different research objects, such as knowledge-based employees and non-knowledge-based employees, and conduct comparative research in order to have a more comprehensive understanding of the roles and values of the two types of employees in the enterprise. Second, more diverse research methods, such as case studies and experimental studies, are used as much as possible to verify the hypotheses of this study from multiple directions and perspectives. In addition, additional methods such as field research and interviews can be considered to obtain richer and more authentic first-hand information.

2. In this study, the focus is on knowledge workers in China's provincial capital cities or municipalities. However, the findings of this study may have limitations in other small and medium-sized city contexts in China. In order to improve the generalizability and reliability of the study, future research could expand and deepen in the following areas.

Expanding the scope of the study by expanding the sample to small and medium-sized cities. Within China, the level of development and environmental conditions vary greatly from city to city, so it is important to understand the behavior and needs of knowledge workers in these cities. By conducting surveys in more cities, we can gain a more comprehensive understanding of the characteristics of knowledge workers in different regions and environments, and thus provide targeted guidance to policy makers and enterprises.

Conduct cross-level comparative research. Based on the research on knowledge workers in small and medium-sized cities, it is possible to compare large cities with small and medium-sized cities and analyze the differences in knowledge workers across city sizes. This will help us gain a deeper understanding of the needs and challenges of knowledge workers and the impact of city size on knowledge workers.

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