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Food Delivery Rider's Customer Injustice and Turnover intention: The Roles of Emotional Dissonance, Occupational Commitment and Work-Family Conflict—Evidence from China

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Doctor of Management

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University of Electronic Science and Technology of China

March, 2021



BUSINESS
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Declaration

I hereby declare that the submitted dissertation is the result of my independent research under the guidance of my tutor. Except for the acknowledgement, the dissertation submitted does not contain any materials that have been used by others or by the author herself to obtain a degree and certificate from any educational institution. And as far as I am concerned, except for the quotations marked in the text, this dissertation does not contain any published works written by others or collectives.

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作者申明

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Abstract

With the rapid development of online food ordering in China, 10 million food delivery riders have become an emerging social group in the shared economy. Customer injustice experienced by them has been widely reported, but few empirical studies have investigated the impact of customer injustice on their attitudes and behavior. This thesis aims to explore the impact of customer injustice perceived by food delivery riders on their turnover intention and the roles of emotional dissonance, occupational commitment and work-family conflict in this relationship.

Guided by Affective Events Theory (AET) and Job Demands-Resources (JD-R) Theory, this study develops and tests a process model from customer injustice to turnover intention through emotional dissonance and occupational commitment (as mediators) and the moderation of work-family conflict in the relationships between customer injustice and the other variables. Using cross-sectional data collected from 409 food delivery riders in 5 cities in Guangxi Autonomous Region of China, this study tests this multiple mediation model. The results of structural equation modeling demonstrate that: 1) customer injustice not only directly affects turnover intention, but also indirectly affects turnover intention through emotional dissonance and occupational commitment respectively; 2) customer injustice is positively related to turnover intention through a sequential mediation effect. Specifically, customer injustice is positively related to turnover intention via (a) increased emotional dissonance and (b) subsequently reduced occupational commitment; 3) work-family conflict accentuates the relationship between customer injustice and turnover intention through occupational commitment.

The implications of the findings for future research and management are discussed.

Keywords: Food delivery riders in China, customer injustice, emotional dissonance, occupational commitment, turnover intention

JEL: M12; M54

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Resumo

Com o rápido desenvolvimento das encomendas online de alimentos na China, 10 milhões de estafetas de entrega de alimentos tornaram-se um grupo social emergente na economia digital. Tem sido amplamente noticiada a injustiça com que são tratados por clientes, mas poucos estudos empíricos têm investigado o impacto da exposição à injustiça dos clientes na sua atitude e comportamento. Esta tese visa explorar o impacto da injustiça do cliente percebida pelos estafetas de entrega de alimentos sobre a intenção de saída e o papel da dissonância emocional, do compromisso profissional e do conflito entre trabalho e família.

Guiada pela Teoria dos Eventos Afectivos (AET) e pela Teoria das Exigências-Recursos (JD-R), esta investigação desenvolve e testa um modelo de processo desde a injustiça do cliente até à intenção de saída através do compromisso emocional e ocupacional (como mediadores) e a moderação do conflito trabalho-família nas relações entre a injustiça do cliente e as outras variáveis. Utilizando dados transversais recolhidos de 409 estafetas de entrega de alimentos em cinco cidades em Guangxi, China, esta investigação testa este modelo de mediação múltipla. Os resultados da modelação por equações estruturais demonstram-no: 1) a injustiça do cliente não só afecta directamente a intenção de rotatividade, mas afecta indirectamente a intenção de rotatividade através da dissonância emocional e do compromisso ocupacional, respetivamente; 2) a injustiça do cliente está positivamente relacionada com a intenção de rotatividade através de um efeito de mediação sequencial. Especificamente, a injustiça do cliente está positivamente relacionada com a intenção de saída através de (a) maior dissonância emocional e (b) subsequente redução do compromisso ocupacional; 3) o conflito entre trabalho e família acentua a relação positiva entre a injustiça do cliente e a intenção de saída através do compromisso ocupacional.

As implicações dos resultados para a futura investigação e gestão são discutidas.

Palavras-chave: Estafetas chineses de entrega de alimentos, injustiça do cliente, disonância emocional, compromisso ocupacional, intenção de saída

JEL: M12; M54

摘要

随着中国网络订餐的快速发展，外卖骑手总人数超过 1000 万。他们是共享经济下的新兴社会群体。这个群体遭受的顾客不公平常见媒体报道，但鲜有研究探讨这种不公平经历对外卖骑手的工作态度与行为的影响。本研究旨在探讨外卖骑手工作中感知到的顾客不公平行为对其离职意向的影响以及在这影响关系中情绪失调、职业承诺和家庭工作冲突的角色。

本研究以情感事件理论（AET）和工作需求资源理论（JDR）为基础，以情绪失调和职业承诺作为中介变量和工作家庭冲突为调节变量，构建了顾客不公平行为与离职意向之间影响关系模型。本研究在中国广西的 5 个城市收集了 409 份外卖骑手的横截面数据，对模型进行了检验。结构方程模型的研究结果表明：1）顾客不公平行为不仅可以直接和正向地影响离职意向，而且还可以通过情绪失调和职业承诺产生间接影响作用。2）顾客不公平行为对离职意向的影响可以通过链式中介来实现。具体表现为：顾客不公平行为导致较高的情绪失调，情绪失调导致较低的职业承诺，低职业承诺继而导致高离职意向。3）研究结果还证明了研究模型的调节中介关系，即较高的工作家庭冲突正向强化顾客不公平行为通过职业承诺与离职意向之间的关系。

论文最后讨论了研究结果对未来研究和管理的启示。

关键词：外卖骑手，顾客不公平行为，情绪失调，职业承诺，离职意向

JEL: M12; M54

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上下求索，以《论语》“取乎其上，得乎其中；取乎其中，得乎其下；取乎其下，则无所得矣”的信念直面未来。

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Chapter 1: Introduction

1.1 Research background

1.1.1 Growing food delivery industry in China

The rapid development of the Internet economy has brought new opportunities to the traditional catering industry. From 2011 to 2018, the scale of catering with group buying characteristics in China continued to grow with an average annual growth rate of 90% (Zhang, 2019). In 2017, China's food delivery market generated a revenue of 205.27 billion yuan, and in 2018 the figure rose to 243 billion yuan. The number of online food ordering users in China reached 360 million (Cheng, 2018) . This fully shows that food delivery has become an important part of the contemporary Chinese lifestyle.

In terms of the development of food delivery platforms, Alibaba launched the food delivery platform “Taodiantian” in 2013. In 2014, Baidu, a huge Chinese tech company specializing in internet services and AI, and Meituan, a Chinese O2O (online-to-offline) local life service platform, launched their own Waimai (takeaway) Apps. Due to the characteristics of large consumption volume, huge number of consumers, and high consumption frequency, the food delivery industry has received a lot of public attention. Investors began to look for various ways to enter the market, and the implementation of various subsidy policies greatly increased the number of users of food delivery platforms (Li, 2015). The competition of cash-burning subsidies did not continue, and major strategic adjustments of food delivery platform companies occurred frequently. In 2017, ELE acquired Baidu Waimai and changed its name to STAR.ELE, targeting the high-end market. In August 2018, Alibaba acquired ELE, mainly targeting the mid-low-end market. In September 2018 Meituan Waimai was officially launched. In 2019, Didi Dache, a Chinese mobile transportation platform that offers app-based transportation services, also entered the food delivery market. All platform companies continue to strengthen

cooperation with offline brand companies, and the food delivery platform resources are continuously integrated and adjusted. In 2019, Meituan announced its plan to invest 11 billion yuan to support the catering companies that joined the platform, while ELE launched the “Warm Winter Plan” accordingly. Major companies continue to introduce more complete product delivery services, providing convenient and reliable guarantees to meet customers’ personalized and diversified needs. The fields of business operations between enterprises are also intertwined, and competition continues to intensify. According to the Online Food Delivery Service Market Development Research Report released by Data Center of China Internet (DCCI) in the first quarter of 2019, the market shares of Meituan Waimai, ELE and STAR.ELE were 64.6%, 25.5% and 8.4%. The single-day highest order of Meituan Waimai reached a peak of 25 million orders. The food delivery industry has formed a market landscape dominated by these three companies. The order volume of the entire food delivery industry continues to grow steadily, and the food delivery industry also continues to grow.

According to the 2019 Mobile Internet Industry Analysis Report, after experiencing initial growth, the food delivery industry has also entered a development stage that focuses on experience and intensive cultivation, in which customer service experience has become the core of competition among food delivery companies. Food delivery companies continue to increase their core service capabilities. Meituan has opened its distribution platform to the external companies, and built an ecological circle in technical cooperation, logistics capacity, and industrial chain integration to help upstream and downstream improve operating efficiency and continuously reduce delivery costs. After consumers are familiar with the way of life of ordering takeaways, the competition in the food delivery industry has transitioned from the incremental user part of initial customer acquisition to the competition stage targeting existing users. The food delivery experience of customers becomes even more important. At present, consumers’ experience feedback is not only manifested in the placing of orders on the APPs, but also in interaction with food delivery riders when receiving meals. Therefore, food delivery riders have also become an important factor in industry competition.

1.1.2 Food delivery riders in China

With the changes in customer consumption patterns, more and more food delivery orders require more food delivery workers (hereinafter referred to as food delivery riders). There are over 10 million food delivery riders in China, 6 million of which are employed by the two largest food delivery platforms Meituan Waimai and ELE. Among them, 83.4% are between 20 and 40 years old (Mo, 2019), indicating that food delivery riders are a very young group. This group is huge in number and its scale is still expanding. It is an emerging social group that plays an important role in social and economic development.

Food delivery riders are under the management of the food delivery platforms at work. There are two main types of interaction objects in their daily work: One is restaurants and the other is consumers. One of the management methods of platform merchants to food delivery riders is to manage them through consumer feedback. For example, if consumers give a negative comment, the platform will deduct 20 yuan from the rider's salary; and if there is a consumer complaint, the rider will be deducted 500 yuan. The management of food delivery riders by the platform is directly related to the monthly order volume. This objectively requires food delivery riders to work hard and take more orders to increase their income. Therefore, the income level of food delivery riders is directly related to consumers. The key to higher income for food delivery riders is to take more orders to serve more customers on the one hand, and to achieve better results when delivering food to customers on the other hand. Therefore, customers are extremely important to food delivery riders. This study will investigate the interaction between food delivery riders and customers.

Although the food delivery industry is developing rapidly, food delivery riders are still an emerging group. The management of food delivery riders and the attention to the group present the following characteristics:

First, food delivery riders are an important emerging employment group in the sharing economy. Food delivery is an emerging industry in the Internet economy, and food delivery riders who undertake food delivery tasks have become a new social group. More and more

young people choose to enter this group, even more than traditional industrial enterprises such as manufacturing. Because food delivery riders are closely related to people's "food", some platforms deliberately decorate the clothes and transportation tools in the process of delivering meals on the street as a type of advertisement. Coupled with traffic incidents during the delivery process and interpersonal conflict, the work status and work process of this group have been widely reported by the news media. By and by, more and more people are discussing the work style of this emerging group.

Second, the behavior of customers has an important impact on the work of food delivery riders. Currently, there are three modes of food delivery on Chinese Internet platforms, namely, catering enterprise delivery, platform delivery, and third-party delivery (Bei, 2018). At present, the third-party delivery model is the largest in scale and influence. According to the Annual Report on the Development of China's Sharing Economy (2018) issued by the State Information Center of China, the peak daily order volume of the food delivery industry can reach up to 32 million orders. The high frequency of human interaction with consumers in the work of food delivery riders has formed an interactive influence with consumers. For food delivery riders, consumers affect their work status and mood; while for consumers, food delivery riders influence consumer evaluation and loyalty to catering companies (not riders).

The major basis for the evaluation of riders by the food delivery platform is customer feedback, such as positive reviews, negative reviews and complaints, as well as the number of orders serving customers. Due to the design of this evaluation system, food delivery riders are in a vulnerable position in interaction and need to present their best side to consumers, because customer-related evaluations will affect their income. The interaction between food delivery riders and their customers will also have an impact on the next food delivery interaction. A friendly interaction will have a positive effect on the follow-up work, while the customer's unfair and irrational accusation and criticism will exert a negative impact on the follow-up work. Unreasonable requests from customers will cause psychological effects on food delivery riders, such as asking for garbage disposal. Therefore, in the interaction with customers, the unfair behavior of customers has a greater impact on the group of food delivery riders.

Third, the emotional dissonance in the daily work of the food delivery riders. The food delivery industry has relatively low entry and exit criteria, and the industry is developing very rapidly with a large number of employees. This has led to fierce competition among the riders. In daily work, grabbing orders and running against the clock are frequently reported (Guo, 2018), and there are also safety issues such as traffic violations (Li & Cao, 2019). The strict regulations of the platform, such as unsympathetic fines and consumer reviews, and additional demands from consumers have exerted tremendous psychological pressure and life pressure on food delivery riders. From the perspective of the positioning of the service providers, the food delivery riders are in a vulnerable position (Feng, 2018), and sometimes they even need to please customers. The superficial emotions are not necessarily the same as the true inner emotions. This difference between internal and external emotions can cause emotional dissonance among the riders.

Emotional dissonance is widespread in employees' daily work, especially in the interpersonal communication in the service industry. Emotional dissonance has also become an important part of the work requirements and workflow management of employees in the service industry, such as the emotional dissonance and recovery of primary-level supermarket employees (Chen, 2019), flight attendants (Hochschild, 1983), medical staff, and frontline service personnel in other public sectors (Hsieh, Jin, & Guy, 2012). The common characteristics of these service jobs are: The majority of work lies in interpersonal interactions; work rules require that employees must carry out services with "smiling faces"; and there are differences in the expression of internal and external emotions of employees. If employees fail to control their emotions and choose to express them directly, customers' purchasing service experience will be affected and their work performance will be undermined. They will face more demands from the management at work and may even be forced to leave. Therefore, the management and control of emotional dissonance of service employees are important challenges they face in their daily work.

Food delivery is about providing services to customers, and interaction with customers during the service process is the main form of work. Therefore, emotional management and

control are very important. Emotional dissonance in daily work will not only cause harm to the health of food delivery riders but also negative influence the effectiveness of food delivery and customer experience. Therefore, the emotional dissonance in the work of the food delivery riders should be valued by managers and all walks of life.

Fourth, the income of food delivery riders is not low, but the occupational commitment is not high, and the turnover rate is relatively high. The 2018 Insight Report on Food Delivery riders Group shows that the income of food delivery riders is higher than the local average income. As to the analysis of their background and age, most food delivery riders are relatively young, and a considerable part of them are from rural areas. A comparison with jobs in other industries under the same conditions shows that their income is not low and that their work is both free and flexible with little institutional constraints. The society also has positive impression towards the food delivery riders. According to a report from the Meituan Dianping Research Institute in 2018, 49% of users “comparatively respect” food delivery riders, and 46% of merchants “comparatively respect” food delivery riders, the proportions of “little respect” for food delivery riders were 14% and 12% respectively, which indicates that respect degree of food delivery riders is similar to practitioners of other industries in the society. However, few food delivery riders have long-term commitment to their job despite a certain extent of respect, generous pay and high flexibility. According to Yi (2019), many food delivery riders only regard food delivery as a process of “accumulating money and experience for personal development in the future”. They are not sufficiently loyal to the industry and have a high turnover rate. The 2018 Hummingbird Delivery Report indicated that the voluntary resignation rate among food delivery riders reached 30%.

Occupational commitment can be seen as a “psychological contract” signed between the employees and their current job positions (Long, Long, & Wang, 2002). The external manifestation is a positive psychological cognition of the industry and the position after engaging in a certain position. Individuals with occupational commitment are willing to assume the responsibilities of the position and perform the duties required by the position. Occupational commitment is a comprehensive expression of occupational identity, attitude and input (Long

et al., 2000). Implied in the daily work of employees, it is one of the internal driving factors for employees not to leave the job easily. Judging from the turnover rate of the food delivery riders, their occupational commitment is not high. What are the factors that affect their occupational commitment? What are the specific manifestations of their occupational commitment? These questions need to be answered in order to get a better understanding of the work status of food delivery riders.

Fifth, there is a significant difference between the work-family relationship of food delivery riders and that of employees in traditional industries. Under the nine-to-five work mode in traditional Chinese industries, there is a clear boundary between work and family, that is, the scope of working hours and after-work hours is clear. Work and family will hardly conflict in terms of time and energy. However, in the Internet economy, the work characteristics of food delivery riders are different from those in traditional industries. Their work is more flexible, and their working hours are not completely fixed. Their busiest time are when most people take their meals. The riders can take care of their families when they have free time and energy after work. The boundary between family and work is not clear. Family needs and work needs may overlap in terms of time, and the handling of the work-family relationship will exert a certain impact on work and family. The main impacts of family work include family work balance with no influence on each other, positive effect in which family increases work efficiency, and negative effect in which family weakens work efficiency. Since there are few studies on the food delivery riders, there is no literature on the family work relationship of them. Therefore, the work-family relationship of the food delivery riders and the impact of the degree of development of this relationship on their work is still unknown.

The work-family relationship exerts a profound impact on the employees themselves and their work. For instance, it has an impact on personal health (Grzywacz & Marks, 2000), a employees' family life (Zheng, Zheng, & Chen, 2006), (Hakanen, Peeters, & Perhoniemi, 2011), as well as employees' work performance (Wayne, Randel, & Stevens, 2006). It has an important influence on the status of employees at work, such as organizational commitment (Kuang, Gao, & Li, 2009) and turnover intention (Boyar et al., 2003).

In traditional industries where family and work have clear boundaries, family work relationship can exert a profound impact on individual employees, family relationships, and job performance. In the food delivery industry where family work lacks clear boundaries, the impact results and process of family work relationship may be more complicated. To understand the work status of the food delivery riders, work-family relationship must be included in the discussion.

From the above analysis, it can be seen that the daily work status of food delivery riders can be presented to the society more clearly based on relevant research and investigation. In the work status of the food delivery riders, interaction with the customers, the emotional state of food delivery riders at work, the perception of the position and the willingness to leave are the most important factors.

1.2 Research questions

Premier Li Keqiang first proposed the concept of “Internet+” in the 2015 Government Work Report. The food delivery industry is a combination and upgrading of traditional industries in the context of Internet+. It has achieved tremendous development and has also promoted consumption upgrades and facilitation of social life. To develop a better food delivery market and provide better services, food delivery riders, which play an important role in serving the platform and the consumers, are important targets that deserve attention and must be stabilized in the service chain. Most of the eight million registered food delivery riders in China are young people from 20 to 40 years old. Most of this emerging group come from rural areas (Li, Yang, & Xu, 2019). They are one of the results of the country's promotion of urbanization, and they are also the main force of urban transient population. Current concerns on the food delivery riders are mainly documentary reports on their accidents at work, and empirical research on this group are in the infant stage. Such a group with a huge number, rural characteristics and a young average age deserves the concern and attention of all walks of life. However, the status quo reflects that in the initial stage of industry development, this group has received less attention

and the level of attention is relatively superficial. Therefore, it is very meaningful to be able to conduct research with this group as the targets of study in the early stage of practical and academic development.

According to the 2018 Insight Report on Food Delivery Riders, the income of food delivery riders was higher than the local average income. Seventy seven percent (77%) of them come from rural areas. The income of full-time food delivery riders is generally higher than the average monthly salary of employees in urban private companies across the country. “Top riders” even earn 30,000 yuan a month. On holidays, the platform will also increase the pay. The pay of food delivery riders in Henan Province is about 25% higher than the local average pay. Therefore, the income of the food delivery riders is not low. 40% of them earn 4,000-6,000 yuan, about 25% earn about 6,000-8,000 yuan, and 8% earn 8,000-10,000 yuan, and 3% earn 10,000-13,000 yuan. The employment of food delivery riders is flexible, as the income is generally in the form of piecework, and the work style is relatively free, which also satisfies the pursuit of some riders in terms of work type. According to data released by the Meituan Dianping Research Institute in 2018, 52% of food delivery riders work less than four hours a day, 39% work four-eight hours, and they present obvious characteristics of the new generation as they no longer simply pursue employment stability when choosing a job. Flexible working hours, guaranteed income, free time, and good future development have become the most important factors for the food delivery riders.

Despite these work advantages, according to the 2018 “Hummingbird Delivery Report”, the voluntary turnover rate of food delivery riders reached 30%, and the occupational commitment to food delivery jobs was not high. Those who experienced emotional dissonance such as anxiety, stress, sense of loss and helplessness accounted for 24.37% (Huang, 2018).

What are the factors that cause the high turnover rate? Does customer injustice experience lead to higher emotional dissonance, lower occupational commitment and sequentially higher turnover of the food delivery riders. These are the key questions this study attempts to answer.

From the perspective of academic research, we searched for academic papers from China National Knowledge Infrastructure (CNKI) in April 2019 with “food delivery riders” and “food delivery brothers” as the key words and found only 26 articles. Judging from the level of publication, although there had been related research, there were no papers published in core journals, indicating that the living conditions of this group have not yet received sufficient attention from the academia. Judging from the publication trend, only one paper was published in 2016, while seven in 2017 and 17 in 2018. The publication trend is consistent with the industry development trend, indicating that with the rapid development of the food delivery industry, the academic community has also gradually begun to carry out relevant research on the group of food delivery riders. As for the focus of the existing research, there are research on safety and compensation during the work of food delivery riders (Yan, 2018; Xue, 2017; Lei, 2017), research on the legal protection of contracts between employers and riders (Zhang, 2017), research on the improvement of work equipment for riders (Yang, 2018), and research on the image and daily life of riders (Yang, 2017; Jiao, 2018; Li, 2018). It can be seen that these studies focused on the “external” aspects of the food delivery riders, but failed to pay attention to the internal working status and work psychology of the group. According to the 2018 China Food Delivery Big Data Analysis Report, the food delivery group is relatively young, pursues novelty and individualization in personality, has a very rich inner life, and is relatively large in number. They belong to the new-generation service staff, providing new topics of study for modern management science. While the food delivery industry is developing and while they are serving the modern people for their life, the riders also need to gain attention and understanding, and we need to go into their hearts to understand their work.

According to review of literature, the real academic research with food delivery riders as the topic of study began in 2016. From the perspective of the number of research results and research content, the current research is at the initial stage, with many news reports and qualitative results, lacking results in discussion of regularity. The investigation and empirical research carried out in this thesis is innovative and has practical value. Therefore, this study

focuses on the investigation of the work status of the food delivery riders and the factors affecting their work status.

1.3 Research purpose and significance

1.3.1 Research purpose

This study has two purposes. First, this study aims to understand the work status of food delivery riders, specifically the current situation of customer injustice, emotional dissonance, turnover intention and occupational commitment in the work of food delivery riders in the Chinese context. Second, this study aims to explore the relationship between customer injustice experienced by food delivery riders, emotional dissonances, turnover intention, occupational commitment, and work-family conflict.

1.3.2 Theoretical significance

First, the present research will enrich and expand the Job Demands-Resources (JDR) theory. Current research is mostly focused on the resource consumption and emotional dissonance of service personnel (Zhao, Chen, & Tao, 2019) in hotels (Chen, 2018), hospitals (Liu, Ma, & Sun, 2018), department stores (Li, 2015), and schools (Zhang, 2018). Food delivery riders are an emerging new service group, and there has yet been no research on the manifestation and measurement of their work needs, resource consumption and emotional perception. Therefore, this study is an enrichment of job demands and resources theory and an extension of application fields.

Second, the work process of the food delivery riders and the impact of their emotions on work are different from other service industries. Research on this particularity is a new research direction. The job of the food delivery riders is flexible and usually contract-based. But they can also take the form of part-time job. The job has the nature of “come and leave without advance notice”. The influence of emotional state on work behavior in this flexible work environment is still a new direction.

Third, this study explores the moderating effect of work-family conflict of food delivery riders on customer injustice, emotional dissonance, turnover intention and job commitment. The work status of service workers is often affected by work-family relationship, such as medical staff (Guo, Chen, & Zhou, 2017), librarians (Li, 2019), and female entrepreneurs (Chen, 2015). Existing research focuses more on formal jobs, that is, full-time jobs. There are relatively few studies on the impact of the work-family relationship of food delivery riders with such a flexible job, and research on the work-family relationship in this special work situation is also a further promotion of the research field and deepening of the connotation.

1.3.3 Management implications

Ordering takeaways has now become a major way of life for all people, and it has been deeply integrated into people's life and work. In accordance with current trend, it will also produce greater social and economic benefits. The development of the food delivery industry is inseparable from the participation of food delivery riders. Food delivery riders are currently characterized with high mobility and job instability, which will affect the development of the industry and consumer experience.

1.4 Thesis structure

This thesis is composed of five chapters as follows.

Chapter 1: Introduction. This chapter includes the research background, research purpose, research questions and main research contents.

Chapter 2: Literature Review and Research Framework. This chapter mainly includes the literature review and analysis of the contents related to the theme of this thesis, including customer injustice, emotional dissonance, occupational commitment, turnover intention, work-family relationship and the theoretical basis of this study. Based on these literature studies, this chapter puts forward the basic hypotheses and research model of the thesis.

Chapter 3: Research Methods. This chapter mainly includes the design of the questionnaire, participants and scope of the survey, data collection process and quality control, data reliability and validity processing, correlation and regression model analysis, and structural equation model analysis.

Chapter 4: Results. This chapter mainly includes descriptive statistical analysis, correlation analysis of variables, variance analysis of variables, structural equation model analysis and hypothesis test results analysis.

Chapter 5: Discussion and conclusions. This chapter includes the comparison and discussion of the empirical results of this study and the actual development situation, the comparative analysis and discussion of the research results and related previous studies; compilation of the main contributions of this research, and summary of the theoretical and practical significance compared with the previous research; analysis of the research limitations and suggestions for further research in the future.

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Chapter 2: Literature Review

This chapter reviews relevant literature on customer injustice, emotional dissonance, occupational commitment, turnover intention, and work-family relationship to establish the theoretical basis for this study. Based on literature review, research hypotheses and research model were developed.

2.1 Customer injustice

2.1.1 Definition of customer injustice

Scholars have defined customer injustice from multiple dimensions. In the description of customer unfair behavior, customer unfairness, jay customers, customer abnormal behavior (Woo & Fock, 2004), and customer unfriendly behavior (Walsh, 2011) are all terms used by scholars to describe customer unfair behavior. A more serious injustice is customer service sabotage behavior. Fullerton and Punj (1993) proceeded from the customer characteristics and interactive environment in the interaction between customers and employees and established a structural model with two factor sets to determine whether there is aberrant consumer behavior. Managers can use this model to design rational strategies to deal with injustice. Lovelock and McGrawHill (1994) used the term jay customer to refer to dysfunctional customers who deliberately or unintentionally disrupt service in a manner that negatively influences employees and enterprises and other customers who enjoy services. Harris and Daunt (2003) defined the type of customers who present unfair behavior as dysfunctional customers. Their behaviors, in the intentional or unintentional, overt or covert form, disrupt interactions with employees. Berry and Seiders (2008) defined customer injustice as the customers' behavior that caused harm to the company, company employees and fellow customers. The behavior presents disrespect for the legal rights of others, but it does not mean that the behavior is illegal. Rupp et al. (2008)

believe that customer injustice occurs in the interaction between customers and employees and is a part of organizational justice. The main manifestation is the injustice between customer and employee interaction.

Harris and Ogbonna (2002) defined the service sabotage behavior as a behavior of employees deliberately making negative influences in the service provision process, and 90% of the surveyed believed that this behavior occurred every day in their organizations. Employees, organizations, and environmental factors will exert an impact on service sabotage behavior, and service sabotage behavior will also affect employees themselves, organizational service quality and organizational performance. Skarlicki, Jaarsveld, and Walker (2008) believed that customer injustice is a reflection of interactive justice. The employees are those who mainly perceive this injustice, and they have a certain degree of revenge for such injustice. Employees may adopt negative behaviors such as go-slow. Some of employees' retaliatory behaviors will have a certain stimulating effect, which can reduce customer injustice.

Yu and Zhang (2015) also summarized six characteristics of the customer disruptive behavior, which are multiplicity of injustice orientation, complexity of behavioral inducements, severity of behavioral consequences, diversity of behavioral expressions, concealment of behavioral process and difference in perception of disruptive behavior. Zheng (2013) analyzed the disruptive behavior of the catering industry, mainly including deliberately ignoring the legitimate requirements of customers and not listening to customers' opinions.

Researchers categorized customer injustice. According to the different orientations of customer injustice, Lovelock and Wirtz (2011) called customers with unfair behaviors as jay customers and divided them into customers who want to repudiate their debts, violate the requirements of service scope and requirements, and make a noise without considering the surrounding environment. Lee and Allen (2002) divided unfair behaviors into two categories. One is customer injustice against the company, and the other is customer injustice against other customers. Yi and Gong (2006) believe that unfair behaviors of customers include arrogant attitudes toward employees and other customers, unreasonable behavior, fraud, and taking unfair advantage of others. In their research, Berry and Seiders (2008) divided customers with

unfair behaviors into five categories based on the degree of customer behavior damage, frequency of unfair behavior, and motivation of unfair behavior. To be specific, they are verbal abusers, blamers, rule breakers, opportunists and return-aholics.

Yagil (2008) focused on the analysis of unfair behaviors against service personnel, mainly including verbal abuse and physical contact. Chen (2009) divided the impact of unfair behavior into two levels according to the objects of customer injustice. One is against enterprises and organizations, and the other is against other customers. Therefore, customer injustice is divided into five types: unfair interpersonal communication, non-cooperation, improper profit-making behavior, unfair attitude and unreasonable requirements. Among them, unfair interpersonal communication and unreasonable service requirements are the most frequently mentioned. Gong, Peng, and Xie (2011) classified customer injustice into three categories based on actual news report, namely, non-cooperation, irrationality, and impropriety.

2.1.2 Customer injustice in food delivery service

Food delivery riders under the management of the platform is a peculiar group in the context of China's Internet economy, and customer injustice is often encountered in reality. Shen (2019) found that some customers gave negative reviews on the food delivery riders at will because of food delivery or bad mood, and they also made complaints or criticized food delivery riders when receiving meals. However, riders did not dare to argue on the basis of reason, because "customers only need to click on the mobile phone to give a bad comment, which means a fine from the platform". Sun (2019) found that customers would question and complain about riders under unreasonable circumstances, and they would also criticize and file complaints at will because their meals were not delivered in a "prioritized" manner. Mo (2019) contends that most of the customer injustice during the delivery of meals originates from customers' urging for getting the meals. If the riders cannot estimate the delivery time based on experience, they will likely be criticized by customers during delivery.

Customers can give negative review on food delivery riders on their mobile phones, and this has almost become a one-way privilege for customers. If some unreasonable requirements

are not met, the riders will get negative review and their wages and work mood will in turn be greatly affected. Zhang (2018) argues that negative review on food delivery is originally an evaluation mechanism for platform management and consumer rights protection, but in practice, many institutional flaws are exposed. Platform companies are the managers of the negative review mechanism, and when formulating implementation methods, they must be objective, averting common cognitive misunderstandings and avoiding the simple and crude practice of direct high fines for one single negative review. Liao (2018) analyzed why food delivery riders “with bad service attitude” were assaulted by customers and found it was because the customer unreasonably asked the rider to throw garbage. Other customers wrote in the remarks to the riders: “Buy a bag of 25kg rice by the way, you will receive complaint if you do not buy it”, and “Please go to the building materials market to buy 5 bags of cement and send it over!” Such incidents are often reported in the media.

Overall, food delivery riders often encounter customer injustice in their daily food delivery work. From the perspective of literature review, scholars are more focused on qualitative description such as the situation of the occurrence of injustice and specific forms of unfair behaviors. There are limited quantitative analyses of the causes and consequences of unfair behaviors suffered by food delivery riders.

2.1.3 Consequence of customer injustice

The consequence of customer injustice will be discussed in terms of impact on organizations, employees, and other customers.

In terms of the consequence of customer injustice on organizations, Valarriere et al. (2012) studied the relationship between the parties in the interaction between employees and customers, and believe that companies, employees, and customers are interconnected to provide transitive services. Employees pass the company's services to customers, and at the same time get feedback from customers on the services provided by the company, while employees serve as the intermediate link. According to Liu, Liu, and Geng (2013), customer injustice ultimately reduces the employees' service quality to the organization. In the interaction with customers,

employees believe that their efforts have not been rewarded as expected, and customer injustice has significantly increased the sense of unfairness of the employees (Kurtessis et al., 2015). In this interactive system, employees regard the company as an interactive “person” and may attribute this sense of injustice to customers and company. As a bond of interaction, employees have invested constantly consumed physical and psychological resources in this process (Grandey, Kern, & Frone, 2007), and this investment requires expected returns as compensation. However, the reality is that employees do not get compensation from customers. The organizational work requirements may instead require employees to pay additional resources to deal with customer injustice. This has resulted in unbalanced interaction on employees and the organization caused by customer injustice.

Customer injustice exerts an impact on the psychological perception of the relevant people in companies and the society. Harris and Daunt (2003) conducted research in the form of in-depth interview and finally argue that customer injustice not only causes emotional reactions such as anger and frustration to the employees involved in the short term, but also cause long-term psychological problems such as insomnia and anxiety. Rupp et al. (2008) propose that the nature of service is interactive. Therefore, the two or more interacting parties have certain expectations for each other, and meeting and achieving their respective expectations forms a balance between the parties in the interaction process. Skarlicki, Jaarsveld, and Walker (2008) found that customer injustice can cause uncivilized reactions among employees within the organization. In contrast, Xu, Huang, and Robinson (2015) contend that not all employees who suffer unfair behavior respond in negative ways such as antisocial reaction. Among the measures taken by employees to deal with customer injustice, there are good and poor results (Schabram & Maitlis, 2017). Grandey (2003) contends that customer mistreatment can cause employees to produce emotional labor. Grandey and Sin (2004) believe that customer injustice can easily make employees feel emotionally exhausted. According to Dallimore, Sparks, and Butcher (2007), customer injustice can cause negative work emotions in employees. Zhang et al. (2008) argue that customer injustice will also promote employee absenteeism. According to Wang et al. (2011), customer injustice may lead to related disruptive behaviors of employees.

Walsh (2011) also believes that customer injustice will bring a kind of pressure, which has a great impact on employees' subsequent work performance and turnover. Rafaeli, Erez, and Ravid (2012) contend that customer injustice will affect the work performance of employees. Li and Zhou (2012) believe that customer verbal abuse can effectively predict turnover intention of the service staff. When the psychological capital of the service staff is high, it is unlikely that they generate turnover intention despite customer injustice. In face of customer injustice, employees' perception of justice to the organization plays a moderating role in regulating turnover intention. The research of Wen and Hou (2015) and Wen, Li, and Hou (2016) prove that customer injustice will reduce employees' organizational citizenship behavior. Arnold and Walsh (2015) argue that customer injustice not only occurs frequently, but also is a huge source of stress for employees.

Compared with customers, the front-line employees are in a relatively weak and low-power position in the process of interaction. This phenomenon is also related to the government and market-based allocation mechanism of social resources in China (Qiu, 2001). Therefore, when providing services to customers, employees are required by the organization or self-implied to understand and respect customers. In social activities, because low-power individuals are more likely to show empathy and understanding towards others with a low profile (Keltner, Gruenfeld, & Anderson, 2003), the front-line employees present more patience and inclusiveness when they encounter customer injustice. However, related technical service work often has the characteristics of individuals with high power. Employees themselves provide technology-based services. In the case of weak individual technical substitution, the interaction between customer injustice and employees is relatively complicated. Compared with low-power individuals, high-power individuals have a stronger sense of self-esteem in the process of interacting with customers, a deeper sense of customer injustice, and a stronger feeling of disrespect. For example, in the relationship between the food delivery riders and the customers, customers have high-power position to evaluate the riders, so they are more active in the interaction. In the doctor-patient relationship, the high-power status and more confident performance of doctors make them less dependent on organizations than ordinary low-power

individuals (Belmi & Laurin, 2016). Because high-power individuals rely relatively little on the organization, they have become the main percipients of customer injustice.

Customer injustice will also exert an impact on other customers, including positive and negative effects. Zhang, Beatty, and Mothersbaugh (2010) analyzed 142 incidents in 15 service industry scenarios and found that there were 75 incidents where customers were positively affected and 67 incidents where customers were negatively affected. Yin, Yang, and Wang (2010) analyzed 139 incidents and found that there were 30 satisfaction incidents caused by customer injustice and 109 dissatisfaction incidents, and the dissatisfaction incidents accounted for 78.4%. Bitner, Booms, and Mohr (1994) surveyed and analyzed 700 customers from airlines and catering industries and found that dissatisfaction caused by unfair behaviors of other customers accounted for 22%. Grove, Fisk, and Dorsch (1998) also found that dissatisfaction caused by other customers reached 30.95%, while satisfaction accounted for 14.09%, suggesting that the impact of negative behavior is much greater than that of positive events.

2.1.4 Measurement of customer injustice

The concept of customer injustice defined by Berry and Seiders (2008) has been widely used. According to different behaviors of customers, unfair customers are divided into five categories: verbal abusers, blamers, rule breakers, opportunists and return-aholics. However, they did not analyze the dimensions and measurement of customer injustice. Rupp et al. (2008) used a two-dimensional model to measure the unfair behaviors of customers, which are injustice of customer interpersonal communication and the injustice of customer information transmission to employees, but the research conclusions proved that the distinction between the two dimensions was not obvious.

Skarlicki, Jaarsveld, and Walker (2008) adopted the critical incident method and extracted eight items through analysis based on recording of unfair events in the daily work of call center employees. Dormann and Zapf (2004) developed a customer-related stress scale. Wang et al. (2011) integrated the above two scales to form a two-dimensional scale with 18 items. The scale mainly tests the customer unfair behavior and unreasonable demand. Gong, Peng, and Xie

(2011) adopted content analysis method to conduct research on manifestation of customer injustice as well as deep-level cognitive factors, forming a total of 184 behavior points and proposing a classification framework for customer injustice and a research idea for inconsistent role expectations and power imbalance. Through the critical incident method, Xie, Li, and Zhang (2011) collected 67 events and screened 62 “critical incidents”. They coded the incidents with the grounded theory to form a three-category scale of customer injustice incidents including undue self-awareness, offensive conduct, and verbal attack.

Bies and Moag (1986) designed the “interpersonal justice” scale. Xie et al. (2011) combined the scale with the research objects and designed six items, namely, customers are very rude to me; customers make me feel very undignified; customers disrespect me; customers make unreasonable criticisms of me; customers do not understand my work; and customers do not communicate with me frankly. Skarlicki, Jaarsveld, and Walker (2008) developed a scale specifically targeted at customer injustice in employee-customer interaction, which further refined the research objects and research scope. Li (2013) also designed a corresponding test scale based on the interpersonal justice scale, which tested the unfair behaviors of 59 customers experienced by service personnel and the resulting service performance problems. The scale developed on the basis of “interpersonal justice” includes not only the interaction between employees and customers, but also justice of distribution, process, and information behaviors in the interaction process between employees and organizational leaders and colleagues.

Based on the research of the above scholars, the measurement of customer injustice mainly includes the development of the scale from the perspectives of unfairness and unreasonableness, injustice and expectation inconsistency, and interpersonal justice. Among them, the scale based on interpersonal justice has been most widely used.

2.1.5 Summary on customer injustice review

The interaction between customers, merchants and platforms is one of the foundations of social and economic interaction. Customer injustice, as a type of social phenomenon, has received widespread attention. In the previous research, various service industries have been used as

examples to explore the general laws, and in-depth research has been carried out on the concept, classification, influencing factors, influencing results and measurement methods of customer injustice. It can be seen from the previous literature that the main research fields are concentrated on tourism, catering, and after-sales service.

Through literature review, it is found that current scholars in this field carry out research more often from the perspective of policy recommendations, system design and legal regulations. Research by Hershcovis and Barling (2009) proves that most studies fail to consider the specific sources of injustice. Amarnani, Bordia, and Restubog (2018) propose that there is little research on effective response to and guidance on customer injustice. Benoît and Jean-Charles (2019) contend that most studies focus on the unfair interaction between managers and employees, and that research on the attitudes of uncivilized customers to employees is almost ignored. Food delivery is a new form of service, and food delivery riders have frequent interaction with customers. Unfair behaviors by customers often occur and are often reported by the media. However, there lacks quantification of customer injustice as well as quantitative analysis of the consequence of customer injustice. Based on the above literature review, the quantitative research on customer injustice in the food delivery field has not yet been conducted, and its connotation, law exploration and empirical research all need to be further developed.

2.2 Emotional dissonance

2.2.1 Concept of emotional dissonance

The concept of emotional dissonance originates from emotional labor (Hochschild, 1983) and is closely related to it. Emotional dissonance is the conflict between the real emotions felt by employees and the emotions displayed as required by organizations. Zapf (2002) argues that emotional dissonance is the structural difference between the individual's own emotional feelings and external emotional expressions, and deep and superficial performances can achieve the required emotional expression on the surface (Heuven & Bakker, 2003; Grandey & Alicia, 2000). Due to the inconsistent focus on emotional dissonance, the current concept of emotional

dissonance has not been unified, and some are even in a certain degree of opposition. Adelman (1995), Diefendorff et al. (2005), Heuven and Bakker (2003), and Diefendorff et al. (2005) argue that emotional dissonance is the result of emotional labor, and is the internal feelings of employees when their emotional expression is inconsistent with their own emotions. Morris and Feldman (1996) contend that emotional dissonance is part of emotional labor. Zapf et al. (1999) believe that under normal circumstances, there is inconsistency between the organizational requirements for employees' emotional performance at work and the employees' personal emotional performance, so emotional labor is needed to regulate. Therefore, emotional dissonance becomes the antecedent of emotional labor, and increased emotional stress will bring about a decrease of job satisfaction for employees. Delp et al. (2010) believe that the increase of emotional stress in the employees' career will bring about a decrease in employee job satisfaction, and emotional dissonance is a part of emotional labor rather than its product. Although these scholars have not reached a consensus on the concept of emotional labor, there are similarities, that is, the inconsistency between emotional dissonance and real emotions at work is an objective existence, and it is harmful to both organizations and individuals.

Rafaeli and Sutton (1989) believe that emotional dissonance is a kind of conflict of a role between organizational setting and self-awareness, and this conflict will cause emotional exhaustion. In the long run, the emotional labor carried out by the individual following the organizational requirements is harmful to the individual. Employees will experience emotional dissonance when their emotional feelings at work and self-perception are inconsistent. Although emotional dissonance is mainly caused by the gap between organizational requirements and personal perception, it can also be seen as employees' responses to different work experiences and environments (Judge, Woolf, & Hurst, 2010). Rodriguez (2011) spent 18 months collecting interview information from 65 staff members of two companies and found that employees could also display part of their personal emotions to interact with customers within the scope required by the organization and relevant resources were needed to alleviate emotional dissonance.

Early research on emotional dissonance was carried out on the employees of for-profit organizations. Guy, Newman, and Mastracci (2008) found that since 2004, scholars had gradually introduced emotional dissonance to the public management sector. For example, although the police also have various kinds of fear like ordinary people, they must control their emotions and stay focused and calm in accordance with work requirements, thus hiding their true feelings. Hsieh, Jin, and Guy (2012) believe that public sector employees also have a high incidence of emotional dissonance in their daily work. The results of their analysis using the two-stage SEM method show that emotional dissonance affects job satisfaction and burnout and promotes increase in job satisfaction. It is negatively correlated with burnout. The hazards of emotional dissonance mainly come from the concealment and affectation of employees in their inconsistency of internal and external emotions, which increases the risk of employee emotional exhaustion. Most studies focus on the false emotional performance of front-line employees, such as aviation service staff (Hochschild, 1983), bank employees (Erickson & Wharton, 1997); (Julian & Ramaseshan, 1994); (Wharton & Erickson, 1993), health care personnel (Erickson & Wharton, 1997; Morris & Feldman, 1996) and supermarket cashiers (Rafaeli & Sutton, 1989).

Through the previous research of scholars, it can be seen that although there are different definitions and diversified research fields, one of the difficulties in the study on emotional dissonance is the lack of measurement methods and the generally recognized conclusion about the relationship between emotional labor and emotional dissonance (Dijk & Brown, 2006). Dijk and Kirk (2007) believe that when the expressed emotions appear in the form required by the organization, but are inconsistent with the emotions felt by employees, there will appear emotional dissonance. Research at that time failed to clearly distinguish the performance of emotional labor and the experience of emotional dissonance. The study adopted semi-structured interview method and results showed that emotional labor and emotional dissonance were variables of different dimensions. Scholars generally believe that emotional dissonance is a psychological phenomenon, which mainly comes from the inconsistency of inner real feelings and outer expressed feelings caused by employees during work.

2.2.2 Antecedents of emotional dissonance

Research on emotional dissonance is always inseparable from emotional labor (Morris & Feldman, 1996). It is precisely because employees need to perform emotional labor that emotional dissonance occurs (Adelmann, 1995; Diefendorff et al., 2005; Heuven & Bakker, 2003). Empirical evidence shows that emotional labor and emotional dissonance are positively correlated (Dijk & Brown, 2006; Dijk & Kirk, 2007). Dirk and Brown (2006) believe that in the study of the relationship between emotional work and the results affected by emotion, the main contradiction is that there is no agreement on the different definitions and measurement methods of emotional dissonance and the relationship between emotional work and emotional dissonance. Their empirical results show that the antecedent variable of emotional dissonance is emotional labor, and it is found that emotional dissonance plays a partial mediating role between emotional labor and emotional exhaustion. The empirical results of Lewig and Dollard (2003) show that emotional labor is the antecedent variable of emotional dissonance, and there is no obvious difference between emotional dissonance and other negative social psychology on employees. Groth and Hennig-Thurau (2009) believe that because the emotions perceived by employees do not match the emotions they need to express, the surface role in emotional labor has a profound impact on emotional dissonance. Lock (2014) believes that emotional dissonance is the product of emotional labor, which comes from the disguise of employee perception under organizational requirements. Jung and Yoon (2014) conducted a survey of 338 waiters. The study showed that the negative impact of emotional workers was mainly emotional dissonance, and this effect is caused by emotional labor, and emotional dissonance also had positive correlation with work pressure and turnover intention.

While studying the concept of emotional labor, Morris and Feldman (1996) also paid attention to emotional dissonance and the role of employees. Research results showed that emotional dissonance led to lower job satisfaction and affected the role of employees in the organization. Rafaeli and Sutton (1989) used role-playing theory to explain that the more people identify with a certain role internally, the less emotional dissonance they will have when

complying with job requirements. Ashforth et al. (1993) believe that the more employees agree with their role at work, the less emotional dissonance they will experience, and the less sense of hypocrisy they will present to the customers when they work in accordance with their recognized roles. Dewettinck and Buyens (2003) contend that there are three kinds of role stress related to emotional dissonance, namely, role ambiguity, role overload and role conflict. Role conflict most clearly reflects the role mismatch between personal perception and job requirements. When employees need to pretend their emotions for work, they are experiencing a kind of personal role conflict. When employees do not agree with the role played in the work, role conflict will occur, and it will, in turn, lead to emotional dissonance (Rafaeli & Sutton, 1989). Emotional dissonance, in turn, affects employee job satisfaction and job performance and reduces their commitment to work. Although emotional dissonance can cause these serious effects, there are still relatively few empirical studies on job role conflict and emotional dissonance (Dewettinck & Buyens, 2003; Peiro, Gonzalez, & Tordera, 2001). Through exploratory case studies, Julian and Craig (2008) highlighted the impact of customer service role internalization on emotional dissonance and analyzed the impact of emotional dissonance on customer work behavior and job satisfaction based on this relationship. Fan (2017) found that unreasonable demands and irregularities of customer injustice have a significant positive impact on front-line waiters' emotional dissonance, and language abuse cannot effectively predict the emotional dissonance of service workers. customer injustice is one of the antecedents of emotional dissonance.

2.2.3 Consequence of emotional dissonance on employees

Ashforth et al. (1993) believe that emotional dissonance can lead to false feelings, and it may lead to failure to meet customer expectations. However, to a certain extent, these effects will be recognized by individuals and society, thereby alleviating some negative factors including emotional dissonance. Julian and Ramaseshan (1994) conducted a survey of customer contacts from suburban branches of Australian retail banks and investigated the employees' perception of customer ideas and related behaviors. Research results show that emotional dissonance exerts

an impact on the customers of employees and their marketing activities. Long-term emotional dissonance can lead to emotional exhaustion, burnout (Hochschild, 1983), job dissatisfaction (Morris & Feldman, 1996) and depression (Erickson & Wharton, 1997). Emotional dissonance can also affect marketing staff, and this effect is reflected in customers' perception of the quality of services provided by employees (Julian & Ramaseshan, 1994). Studies have also shown that management of emotional dissonance can improve employee satisfaction and job performance (Julian & Ramaseshan, 1994). Lovelock and Wirtz (2011) believe that presenting emotions one cannot feel in the service process can cause stress. Julian and Craig (2008) suggest that emotional dissonance has an impact on key work results, service processes, and customer job satisfaction. Delp et al. (2010) contend that the increase of emotional stress in the employees' career will bring about a decrease in employee job satisfaction. Leea and Ok (2012) studied the negative effects of emotional labor and job satisfaction, conducted a comprehensive analysis of emotional exhaustion in the model, and found that there is a correlation between stressful emotional experience and emotional labor. The research on the relationship between emotional dissonance and job satisfaction is more of a holistic study through other variables (Lock, 2014). They analyzed the impact of four factors including emotional dissonance on employee job satisfaction, and found it exerted a negative impact on service work. A new framework was established in the research and research results suggested that multiple factors including emotional dissonance collectively play an important role.

Maslach (1986) and Leiter (2001) contend that emotional exhaustion is a long-term response of one's body to negative emotions and stress. Lewig and Dollard (2003) found that emotional dissonance will aggravate employees' emotional exhaustion when dealing with work demands, and job positions with high psychological demands will have greater work risks. They believe that the possible way to alleviate emotional dissonance is to reduce other psychological and social needs of employees at work and increase rewards and work support for employees. Rutner, Hardgrave, and McKnight (2008) believe that when employees need to control their emotions such as anger, it means that employees are emotionally disordered to a certain extent. Emotional dissonance is caused by presenting false feelings. False feelings are the results of

emotional dissonance and emotional labor that cause work dissonance and a series of psychological reactions such as depression and anger. Brotheridge and Grandey (2002) argue that emotional dissonance can cause negative results, especially increased stress, decreased satisfaction and increased emotional exhaustion. It is consistent with the conclusions of related studies (Lewig & Dollard, 2003; Guy, Newman, & Mastracci, 2008). Research has also proved that there is a correlation between emotional dissonance and emotional exhaustion (Bakker & Heuven, 2006; Cheung & Cheung, 2013; Wilding, Chae, & Jang, 2014; Rayner & Espinoza, 2015). For instance, emotional dissonance will increase emotional exhaustion (Brotheridge & Grandey, 2002). Hülshager and Schewe (2011) used Meta to analyze the relationship between emotional work, employee well-being and performance results and found that there is a positive correlation between emotional dissonance and emotional exhaustion. Kenworthy et al. (2014) collected 57 independent samples from 16,165 employees to study the relationship between emotional dissonance and emotional exhaustion and found that there was a reliable correlation between the two, with emotional dissonance being an important factor leading to emotional exhaustion. Hyun (2016) found that the more employees in urban public service organizations in the United States suppress negative emotions, the more emotional exhaustion they will experience.

Morris and Feldman (1996) demonstrated through empirical research that there is a relationship between emotional dissonance and job satisfaction, and dissatisfaction with job will affect the generation of turnover intention. Kruml and Geddes (2000) also believe that there is an influential relationship between emotional dissonance and burnout. Groth, Hennigthrau, and, Walsh (2009) believe that surface labor in emotional labor can cause emotional dissonance, and it can also lead to negative job performance, including job satisfaction, high emotional exhaustion, and turnover intention. Jung and Yoon (2014) established a SEM research model. The results show that emotional labor is positively correlated with emotional dissonance, work pressure, and turnover intention, but emotional dissonance has no significant impact on turnover intention of employees.

2.2.4 Measurement of emotional dissonance

Some scholars included emotional dissonance when testing emotional labor (Morris & Feldman, 1996; Kruml & Geddes, 2000; Lewig & Dollard, 2003). Adelman, Pamela, and Zajonc (1989) tested emotional dissonance through two aspects, including emotional expression as part of the job and the respondents' expression of specific problems. Morris and Feldman (1996) formulated a test scale including 5 items. Zapf et al. (1999) used four questions to measure emotional dissonance, such as "How long do you have to present false emotions at work". Using the 5-point Likert scale to score, the questionnaire has good reliability and validity.

Abraham (1998) tested demographic characteristics such as age, gender, and the length of time employees work in the organization as part of the emotional dissonance. Yang and Li (2017) applied the scale to the research on emotional labor of leaders in China. They used the idea of the game of public goods to design a combined experiment targeting emotional labor of leaders and employee types. Research results confirm that the emotional harmony of leaders promotes high-efficiency employees. When the leaders experience emotional dissonance, the employees' performance will be reduced, and the individual emotional response of the employees has a mediating effect. For inefficient employees, the emotional harmony of leaders can also improve performance, and emotional dissonance of the leaders will also reduce their performance. The research has achieved good results with the experimental method.

Kruml and Geddes (2000) also developed an emotional dissonance measurement method containing three question items when studying emotional labor. They took emotional dissonance as a dimension of emotional labor to study and used the structural equation model to carry out a two-stage research. They integrated the results of previous scholars and summarized the measurement of emotional dissonance, and the measurement items formulated are: the emotions I show to customers are not my true feelings; when dealing with customers, I must conceal my true feelings; and when dealing with customers, I always have to pretend my emotions.

2.2.5 Summary of emotional dissonance review

Emotional dissonance has become a common problem in workplace. It can be seen from literature that some scholars believe emotional dissonance is the result of emotional labor, and some scholars believe that emotional dissonance is a part of emotional labor. However, emotional dissonance is closely related to emotional labor, and research on emotional dissonance is all centered on emotional labor. The difference between emotions of frontline employees in a stressful work environment and the emotional requirements from the organization is widespread. With the accumulation of this emotion, it is easy to cause emotional dissonance. Employees' positioning of their own roles, especially improper response to role conflicts, can also cause emotional dissonance. In addition, interaction with customers at work, especially interaction with other customers after experiencing negative emotions, will bring greater emotional pressure to employees and it is more likely to generate emotional dissonance. Although the effects of emotional dissonance vary in different studies, scholars have more consistent views on the results of emotional dissonance, that is, emotional dissonance will bring negative effects to individuals and organizations, and the impact on individuals is mainly manifested in emotional exhaustion and turnover intention, while the impact on the organization is mainly reduction of the satisfaction with the organization itself and customers.

The food delivery platform specifies the time range for the riders to deliver food to the customers, but the food delivery riders have been under high pressure during work due to time constraints and other constraints. In addition, there are other types of work pressure. Interaction with customers is the stage high point and end point of this emotional pressure. Customer injustice in the interaction can easily lead to the growth of negative emotions, thereby forming emotional dissonance. Therefore, setting customer injustice as the antecedent of emotional dissonance is in line with the existing theoretical research results and the reality of the work of food delivery riders.

Although scholars have carried out relevant studies, there are still some issues on emotional dissonance that have not been clarified, such as the relationship between emotional dissonance

and occupational commitment, and the relationship between emotional dissonance and customer injustice. In the context of the emerging group of food delivery riders in China, carrying out research on emotional dissonance of food delivery riders and extending the research field of emotional dissonance to emerging social groups is not only the application and revalidation of theory, but also the need to solve new social problems.

2.3 Occupational commitment

2.3.1 Definition of occupational commitment

Occupation in the narrow sense refers to the job position an individual is engaged in (Solomon, Bishop, & Dresser, 1986). In a broad sense, occupation matches people's social labor and is the result of social division of labor (Zhu, 1996). Occupational commitment can be defined from the following four perspectives. The first is the perspective of attitude, which believes that occupational commitment is personal attitude towards occupation (Blau, 1985), including occupational values. Occupational commitment integrates employees' emotional identification, goal identification and value identification with the organization (Cooper-Hakim & Viswesvaran, 2005); the second is the perspective of motivation, which believes that occupational commitment is an individual's identification with career development and the urgency to pursue the motivation, including a series of adjustments and efforts centered on career goals and hobbies (Colarelli & Bishop, 1990); the third is the perspective of input, which believes that occupational commitment is the expression of the degree to which people devote to their jobs and are unwilling to leave (Meyer, Allen, & Smith, 1993). The pay and return in career development is viewed from the perspective of individual behavior, and these paid resources make employees unwilling to change jobs at will; the fourth is the perspective of responsibility and mission, which believes that occupational commitment is the degree of willingness to contribute to the job after taking on a certain mission, and it is responsibility and effort based on the mission (Klein, Molloy, & Brinsfield, 2012). Among these types of perspectives, the most widely accepted is the perspective of attitude. Meyer and Allen (1997)

defined occupational commitment as an individual's attitude towards his own occupation and proposed the basis for occupational commitment. The first is the basis of affective commitment, namely, the individuals can fully identify with the organization and generate psychological commitment; the second is the basis of normative commitment, namely, the work relationship between the individual and the organization is an important obligation; the third is the basis of continuance commitment, namely, the individual is aware of the cost of leaving the organization. Lee, Carswell, and Allen (2000) believe that occupational commitment is an emotional connection between an individual and an occupation and is a psychological dependence and psychological bond.

Research on occupational commitment by Chinese scholars basically follows the definition and dimensions of international scholars. Long et al. (2000) believe that occupational commitment can also be called professional commitment, which is personal identification with and emotional dependence on the occupation, and the contents include affective commitment, continuance commitment, and normative commitment. Luo and Shen (2001) contend that because of the existence of occupational commitment, individuals can maintain their current jobs. Through investigation of the characteristics of occupational commitment of 137 samples, it is found that the highest occupational commitment is the normative commitment, and the higher the professional and technical level, the higher the affective commitment to the organization. The higher the level of job position, the higher the normative commitment. The higher the employee's educational level, the higher the continuance commitment. Long, Long, and Wang (2002) pointed out that occupational commitment is a certain attitude of employees to their occupation, which is related to personal recognition of career, emotional dependence and investment. The research adopted questionnaire survey to investigate the motivation for employees to engage in the job and structure of occupational commitment. Results show that employees have a higher level of cost commitment and normative commitment, but a relatively low level of affective commitment. Xu, Zhu, and Huang (2005) pointed out that occupational commitment is the degree to which employees recognize and invest in the current occupation and analyzed the relationship between burnout and occupational commitment.

2.3.2 Dimensions of occupational commitment

Occupational commitment can be divided into one-dimensional structure, two-dimensional structure, three-dimensional structure and four-dimensional structure from the perspective of dimensional division. London (1983) believes that the one-dimensional structure of occupational commitment should be expressed as occupational motivation, which includes three parts of occupational identification, occupational insight, and occupational vitality. Blau (1985) also put forward the view of one-dimensional structure. Blau (1989) believed that occupational commitment is mainly an emotional attitude towards occupation. The one-dimensional expression of occupational commitment should be the motivation of individuals when they are in an occupation. With the deepening of research on occupational commitment, more scholars have extended one-dimensional structure to two-dimensional, three-dimensional and four-dimensional structures.

Researchers believe that the two-dimensional structure of occupational commitment includes attitude and behavior. Mowday, Porter, and Steers (1981) described the attitude dimension of occupational commitment from three factors. The first is that individuals accept occupational goals and form a strong belief; the second is to make every effort to promote the occupation; the third is to maintain the individual's professional identity in the organization. Behavior and attitude influence each other, as attitude affects behavior, and behavior strengthens attitude. Ferris (1984) divided occupational commitment from the dimensions of attitude and behavior. The attitude dimension is divided into occupational identification, work engagement and professional loyalty. The behavior dimension is divided into the willingness to work hard and the degree of expectation to maintain occupational identity. According to the principle of division, the two scholars also measured occupational commitment from two dimensions and five aspects.

In terms of the three-dimensional structure of occupational commitment, Meyer, Allen, and Smith (1993) summarized the research results of previous scholars, integrating occupational engagement and turnover of Becker (1960) and emotional dependence and organizational

responsibility of Porter et al. (1974), and put forward the three-dimensional structure of organizational commitment. The three dimensions are affective commitment, continuance commitment and normative commitment. Subsequent scholars formulated occupational commitment scales based on the three-dimensional structure, such as Longet et al. (2000) and Lian, Meng, and Liao (2003) .

The four-dimensional structure of occupational commitment was proposed by Blau (1989), including affective commitment, normative commitment, cost commitment and opportunity commitment. Subsequent researchers introduced continuance commitment as a part of organizational commitment to form the final four-dimensional structure. Chinese researchers apply the four-dimensional structure of occupational commitment. For example, Liu (2005) proposed the four-dimensional structure of occupational commitment for kindergarten teachers. The four dimensions are commitment to ideal values, commitment to obligations and norms, commitment to opportunity cost, and commitment to practical value. The characteristics of these four occupational commitments are also analyzed. Kong (2005) analyzed occupational commitment of Chinese enterprises based on the four-dimensional structure and divided occupational commitment into four dimensions: affective commitment, cost commitment, opportunity commitment and normative commitment. It included 18 question items and empirical research was carried out through three research designs.

Although there appears multi-dimensional structure of occupational commitment, there is still no consistent research on the structure of occupational commitment. According to the research trend, due to the complicated characteristics of the influencing factors of occupational commitment in reality, the multi-dimensional structure has gained increasingly more recognition.

2.3.3 Antecedents and consequence of occupational commitment

2.3.3.1 Antecedents of occupational commitment

Scholars have been studying the formation of occupational commitment and influencing factors of this process. London (1983) contends that the three psychodynamic sources of occupational

commitment are from the degree of identity, occupational insight and occupational flexibility. Carson et al. (1997) also summarized occupational insight into career planning ability in their research and formulated the fundamental influencing factors of occupational commitment. Cohen (1999) modified Morrow's (1983) model and added the content of occupational ethics, contending that occupational ethics runs through the whole process of occupational commitment and is the source of occupational commitment. Occupational ethics affect the degree of work engagement, thereby affecting occupational commitment. The research of Lee, Carswell, and Allen (2000) also shows that occupational ethics are an important influencing factor, and they finally formulated the influence path model of occupational ethics-work engagement-occupational commitment. Klein, Molloy, and Brinsfield (2012) found that the formation of commitment starts from cognition of things. First relatively distant relationship is generated to form passive and mandatory commitment. After further connection is strengthened, it develops into personal social expectation, forming continuance commitment and normative commitment. It ultimately is manifested as affective commitment that is needed in the heart, and becomes occupational commitment based on personal identification.

Based on the previous research, the antecedents of occupational commitment can be summarized as follows.

2.3.3.1.1 Demographic characteristics

Demographic characteristics generally include gender, age, working years, and educational background. Colarelli and Bishop (1990) and Luzzo (1994) argue that demographic differences exert different influences on occupational commitment, and variables such as age and working years have a positive correlation with occupational commitment. London (1983) and Blau (1985) found that working years is related to occupational commitment and gave their explanation: as working years increases, employees are more likely to be promoted in the workplace and are more likely to accumulate various types of qualifications, so their continuance commitment will also be promoted. Parasuraman and Nachman (1987) found that because women in the workplace face more difficulties than men when they first enter the

workplace, the level of occupational commitment of women is higher than that of men. However, the results of empirical research by scholars are not completely consistent. For example, Meyer, Allen, and Smith (1993) believe that working years is related to affective and normative commitment in occupational commitment but has no correlation with continuance commitment. Li (2001) contends that demographic characteristics have different effects on occupational commitment. For instance, female employees with relatively old age have higher affective commitment, older employees with low educational level have higher continuance commitment, older employees with low academic qualifications but long working years have high normative commitment.

Blau (1985) argues that employee marriage is related to occupational commitment, and married employees have higher occupational commitment. Lee, Carswell, and Allen (2000) found that marriage status has nothing to do with occupational commitment, and occupational commitment can partly express employees' emotions. Liu, Liu, and Geng (2013) found through research that the occupational commitment of married nurses is significantly higher than that of unmarried nurses.

2.3.3.1.2 Occupational values

When individuals think that work is important to them, they will be willing to invest more time and resources, and at the same time they will be willing to follow the career development path the organization has set for them. The value identification of the occupation positively affects occupational commitment. Cohen (2009) believes that individual values such as job achievement and need for work are positively related to occupational commitment. Research has found that job roles and career satisfaction are both antecedent variables of occupational commitment. Colarelli and Bishop (1990) contend that people with high internal locus of control will set higher career goals for themselves.

Other individual values such as self-esteem also affect employees' occupational commitment (Carson et al., 1997). Ren et al. (2013) propose that when individuals have more psychological capital, they will adopt a more positive attitude when encountering and solving

problems in career development, which will promote the formation of higher occupational commitment. Individuals and organizations are connected because of work relationship, and the realization of occupational commitments is within the organization. Therefore, the psychological state, job satisfaction, and degree of work engagement within the organization will all have an impact on occupational commitment (Lee, Carswell, & Allen, 2000; Goulet & Singh, 2002).

2.3.3.1.3 Interpersonal relationship

Interpersonal relationship in the occupation is divided into relationship inside and outside the organization. Samuel and Yue (1994) believe that the guidance of a mentor within the organization is also extremely important for individual development. Regardless of whether it is a formal or informal mentor, when an individual has high satisfaction with the mentor, his/her occupational commitment will also increase, and when his/her satisfaction with the mentor is low, the individual occupational commitment will be weakened (Ragins, Cotton, & Miller, 2000). The support of colleagues and leaders within the organization will increase individual occupational commitment (Lee, Carswell, & Allen, 2000). The influence of interpersonal relationship on career commitment is mainly manifested in peer support, supervisor support, whether there is a mentor and satisfaction with the mentor.

2.3.3.1.4 Organizational environment

Organizational environment will increase the work autonomy of organization members. Blau (1985) believes that organizational factors such as role and leadership style at work can be used to predict the occupational commitment of employees. If employees have bad environmental experience such as role conflicts in the organizational environment, their work will not go through smoothly, which will weaken their occupational commitment (Colarelli & Bishop, 1990). Wolfgang (1995) found that friendly environment such as peer support within an organization has a positive effect on employees' occupational commitment. A good organizational environment makes employees more willing to invest in work, which will positively affect occupational commitment of the employees (Lee, Carswell, & Allen, 2000).

In addition, whether employees have a sense of security at work also has an impact on organizational commitment. Goulet and Singh (2002) added organizational uncertainty, family participation, and work dependence on the basis of existing research, and research results show that job insecurity negatively affects organizational commitment.

2.3.3.2 Influence of occupational commitment on individuals

2.3.3.2.1 Influence on work engagement

Blau (1985) believes that occupational commitment is related to work engagement. Morrow and Mcelroy (1986) suggest that occupational commitment is closely related to individual personality traits, which will exert an impact on the degree of job dedication and commitment. Good occupational commitment will drive employees to generate higher work engagement, such as decrease of employee lateness and absenteeism (Corser, 1998; Dahlke, 1996). Work engagement and occupational commitment are closely related. Work engagement has an impact on employees' occupational commitment, but the impact of occupational commitment on work engagement still needs relevant empirical research. Wo (2013) found that occupational commitment is positively related to work engagement.

2.3.3.2.2 Influence on job satisfaction and organizational commitment

In terms of job satisfaction, Meyer, Allen, and Smith (1993) and Irving, Coleman, and Cooper (1997) contend that the affective commitment and normative commitment of occupational commitment are positively correlated with job satisfaction. Carson et al. (1997) studied the relationship between occupational commitment, emotional intelligence, and organizational citizenship behavior, and argue that the higher the occupational commitment, the more positive employees' perception of work, and the higher job satisfaction will be. Lee, Carswell, and Allen (2000) also confirmed this positive correlation, suggesting that employees' attitude towards work is one of the core factors for them to dedicate themselves to the occupation. It is also found that occupational commitment is positively related to job performance. With knowledge workers as the subjects, Kang and Yang (2004) analyzed the relationship between their occupational commitment, work effort and job satisfaction, contending that higher job

satisfaction means greater attractiveness of staying within the organization and higher occupational commitment. The conclusion is that there is a positive correlation between occupational commitment and job satisfaction.

In terms of organizational commitment, Baugh and Roberts (1994) believe that there is a close correlation between occupational commitment and organizational commitment. This view has also been confirmed by Wallace (1995) whose research results suggest that organizational commitment is highly dependent on perception of career advancement opportunities and compensation distribution. High occupational commitment will lead to high organizational commitment (Meyer, Allen, & Smith, 1993; Irving, Coleman, & Cooper, 1997). Lee, Carswell, and Allen (2000) believe that organizational commitment is the outcome variable of occupational commitment, and it is found that occupational commitment and organizational commitment have a positive correlation.

2.3.3.2.3 Influence on burnout and turnover intention

In terms of the impact on burnout, Lee, Carswell, and Allen (2000) contend that occupational commitment and burnout are negatively correlated, which can cause emotional burnout, low sense of accomplishment, and depersonalization of employees. Lian, Meng, and Liao (2003) suggests that burnout can be predicted accurately through the analysis of occupational commitment. Liu (2005) argues that occupational commitment is positively related to job satisfaction, but negatively related to burnout. Yi, Wang, and Zhan (2012) found that the lower the occupational commitment, the higher the degree of burnout.

In terms of the impact on turnover intention, Blau (1985) believes that there is a negative correlation between occupational commitment and change of job. It is proved that the higher the occupational commitment, the lower the intention of employees to leave the organization (Chang, 1999). Occupational commitment has a more accurate predictive effect on turnover intention. Wang (2007) adopted a four-dimensional occupational commitment scale, namely, affective commitment, normative commitment, inheritance commitment and ideal commitment. The results show that there are significant differences in affective commitment among

employees with different years of service, that inheritance commitment differs in age, length of service, and marital status, and that employees with different educational backgrounds have differences in ideal commitment. Occupational commitment is positively correlated with organizational commitment and organizational citizenship behavior and negatively correlated with turnover intention.

2.3.4 Measurement of occupational commitment

According to the different structural dimensions of the above-mentioned occupational commitment, there are also single-dimensional and multi-dimensional views on its measurement. Although there are different measurement methods of occupational commitment, empirical tests show that these methods all have good reliability and validity. The theory of occupational commitment measurement can be divided into three categories.

2.3.4.1 Single-dimensional occupational commitment scale

The single-dimensional measurement developed by Blau (1985) was the earliest occupational commitment measurement scale. It initially consisted of eight items, and subsequently absorbed the occupational commitment items of Price and Mueller (1981). The Blau scale is applied to professional occupations, such as nurses, managers, insurance employees and bank tellers (Blau, 1985, 1988, 1989) and is proved to present good effects.

2.3.4.2 Three-dimensional occupational commitment scale

Meyer, Allen, and Smith (1993) developed a three-dimensional occupational commitment scale, including measurement of affective commitment, continuance commitment, and normative commitment. Each dimension includes six items, and the scale has a total of 18 items. The three-dimensional occupational commitment scale compiled by Chinese scholar Long, Long, and Wang (2002) is widely used in the country, and the scale contains 16 items. Lian, Meng, and Liao (2003) also established a three-dimensional 22-item career commitment scale. Teaching achievement goals including occupational commitment factors have a significant

impact on teaching strategies, and personality characteristics play a mediating role in this process.

2.3.4.3 Four-dimensional and multi-dimensional measurement scale

Blau (1989) analyzed Meyer's three-dimensional model and argues that continuance commitment is not comprehensive. It only emphasizes that individuals are unwilling to leave their current occupations because of previous investment, but other reasons for personal retention are not considered. Blau (1989) divides continuance commitment into two aspects to form a four-dimensional scale, namely, affective commitment, normative commitment, cumulative cost and lack of other career opportunities. Some scholars (Vandenberghe & Panaccio, 2012) also call the cumulative cost in this model the perceptual loss. The four-dimensional model scale of Blau (1989) has a total of 24 items, and the scale is used to investigate three types of respondents, namely, pharmacy employees, general employees and graduate students. Blau (1989) then divided continuance commitment into cumulative cost and other job opportunities from the perspective of cost analysis. Multi-dimensional occupational commitment includes affective commitment, normative commitment, continuance commitment, cumulative cost, and lack of other career opportunities. These factors comprehensively describe job commitment and turnover psychology of employees from different perspectives of psychology, management, economics, and society.

2.3.5 Summary of occupational commitment review

Since the concept of occupational commitment was created, it has gained extensive concern from scholars. Researchers have defined occupational commitment from different perspectives and have formed a variety of measurement tools with good reliability and validity. Research on the impact and results of occupational commitment has also produced many achievements. Demographic characteristics, individual values, interpersonal relationships and organizational environment all have an impact on occupational commitment. In addition, occupational commitment also exerts profound impact on employees' work engagement, job satisfaction,

organizational commitment and burnout. The research model and system have been relatively mature.

The above-mentioned literature review reveals that there are some limitations in the research results of occupational commitment, and continuous research is still needed under the current economic and social development background. For instance, the influence impact and mechanism of individual emotions and external behavior in the factors affecting occupational commitment are still unclear. The current research on occupational commitment is mainly focused on teachers, doctors, nurses, accountants and librarians. Occupational commitment of food delivery riders has not been concerned and studied by the academia. Therefore, it has theoretical and practical significance to carry out research on occupational commitment of food delivery riders.

2.4 Turnover intention

2.4.1 Concept of turnover intention

March and Simon (1958) contend that turnover is a decision, which is an employee's decision to abandon the position in the organization, lose the benefits related to the position and break away from the organization. It indicates that turnover is a kind of decision, and implementation of this decision has a process of action, such as work comfort and job change desire. They defined turnover intention as the willingness of employees to leave their current job positions to seek other job opportunities and the intensity of this willingness.

Turnover intention can also be divided by broad and narrow sense. Scholars have some differences in the concept and definition of turnover intention. Mobley (1982) defined turnover as the process of an individual to terminate relationship with the organization in a narrow sense. Huang and Zhao (1991) defined turnover in a broad sense and a narrow sense. In a broad sense, turnover refers to the transfer of social labor between organizations. In a narrow sense, turnover refers to the flow of employees from one industry to another, and turnover in the narrow sense gains more attention.

Porter et al. (1973) contend that turnover occurs as a result of the accumulation of dissatisfaction events at work. When employees experience dissatisfaction at work, it is likely for them to produce the idea of turnover. Subsequently they will search for other job opportunities, evaluate and compare job opportunities, and finally present the behavior of turnover (Mobley, 1977). Mobley, Horner, and Hollingsworth (1978) hold slightly different view from this view of development from dissatisfaction to turnover behavior. They contend that job dissatisfaction, the idea of turnover, search for other opportunities and finding of a favorite job together constitute turnover intention. The former view emphasizes the sequence of the turnover process, while the latter focuses more on the composition of the concept of turnover intention. Bluedorn (1982) proposes that there is a significant correlation between turnover and turnover intention. Lee and Mowday (1987) believe that there is a strong relation between turnover intention and turnover, and the turnover behavior of employees can be predicted and managed through research on turnover intention. Denvir and McMahon (1992) believe that turnover is the act of an employee leaving the organization where he was originally employed and being hired by a new organization. Employees experiencing dissatisfaction at work will generate turnover intention.

From the above definitions of scholars, it is known that turnover intention is closely related to employees' personal feelings, work status, and organizational management. Turnover intention is an employee's mental state which is the desire to leave the current job. It is the starting point of the occurrence of turnover and can predict the final turnover behavior. The turnover of employees will bring direct and indirect costs to the organization. Chen, Fang, and Ling (2001) estimated that the cost of voluntary turnover of employees to the organization is two to three times of their annual income, including the recruitment of new employees, training and guidance and inefficiency of preliminary work of new employees. The turnover intention referred to in this research adopts a narrow definition, that is, turnover intention is an employee leaving the food delivery industry to find employment opportunities in other industries.

2.4.2 Antecedents of turnover intention

The following antecedents of turnover intention are reviewed from organizational factors and personal factors of employees.

In terms of organizational factors, employee turnover exerts an important impact on organizational activities. It is believed that job opportunities in the organization have a great impact on employee turnover (Steers, 1977). Mobley, Horner, and Hollingsworth (1978) believes that organizational environmental factors are very important influencing factors. The organizational support (Michaels & Spector, 1982) and organizational commitment (Quarles, 2011) an employee obtains in their work will also affect their turnover intention. Cheng et al. (2019) propose that when organizational justice is guaranteed, healthy competition within the organization will not affect the employees' turnover intention.

The salary of employees is also an important factor affecting their turnover intention. Liu and Peng (2005) conducted an empirical study on the reasons for the voluntary turnover as well as turnover of employees in the Chinese context. The results indicate that salary has a significant negative correlation with turnover intention of employees, it has a significant impact on job satisfaction, and it exerts an indirect impact on employee turnover intention. Yang, Song, and Wei (2007) adopted the questionnaire survey method and found that there are 13 factors affecting turnover intention of employees. Among them, salary is the highest in terms of statistical indicators such as sample mean and frequency and is the factor most likely to lead to turnover intention. In the environment of agency by agreement, with the management of life insurance agents as the object, personal interests are transformed into the pursuit of company profits. Reform in terms of salary composition, performance appraisal and commission payment models can be used to effectively manage turnover intention of such agents (Liu, Zheng, & Zhou, 2008).

Employees' individual factors (Cotton & Tuttle, 1986) such as personal emotions, work pressure (Porter et al., 1974) and job satisfaction will all exert an impact on their turnover intention. Among the factors related to emotions, employees' job satisfaction is negatively

correlated with their turnover intention (Hulin, 1991). Fan (2017) studied the impact of customer injustice from three dimensions of verbal violation, rude request, and irregularities on service personnel and the results show that the three dimensions of customer injustice have a significant positive impact on turnover intention of service personnel.

To summarize division of the antecedents and dimensions of turnover intention in previous research, there are two major factors that affect employee turnover intention, namely organizational factors and individual factors. Organizational factors mainly include the conditions that the organization can provide to employees, such as work conditions and salary levels, and individual factors include the psychological perception of work.

2.4.3 Measurement of turnover intention

The widely used scale for the measurement of turnover intention is proposed by Mobley, Horner, and Hollingsworth (1978). It mainly measures employees' perception of the company, the generation of turnover idea, the possibility of finding other job opportunities, and the possibility of securing other jobs. In follow-up research, measurements focused mainly on the possibility of employees staying in the organization in the future and the possibility of finding other jobs (Price & Mueller, 1981). Sager & Johnston (1989) measured turnover intention with the following three items: Is there a promising prospect to continue the work? I plan to find another job next year. I plan to work in the company for a long time. Rosin and Korabik (1991) developed a scale to measure employees' turnover intention with four items: I have the idea of leaving this company. If possible, I want to resign now. I am planning to resign in the next six months. I am actively looking for another job. Jiang (2007) applied the scale of Rosin and Korabik (1991) to the study of employee turnover intention in Chinese companies. Rosin and Korabik measured turnover intention with three items: 1) I am considering resigning. 2) I am looking for a similar job. 3) I think I can find a suitable job in another company. Zhu (2007) adopted five items to measure employee turnover intention: 1) I want to work in this company for a certain period. 2) I feel bored with my current job and want to change my job. 3) I often

want to quit my current job. 4) I will look for other job opportunities. 5) If there is a suitable job, I will accept it.

The above scholars have carried out measurement of the employee turnover intention, and the scale has also been widely used in the academia. Many scales have good consistency and can be applied to the measurement of the turnover intention of the food delivery riders.

2.4.4 Summary of turnover intention review

According to the above literature review, although Chinese and international scholars have different definitions of the concept of turnover intention, they are consistent as to the process and core cognition of it. There have been some widely recognized employee turnover models to help us understand the mechanism of employee turnover, and previous research has also summarized the factors that lead to employee turnover. The academic research results are relatively rich, but there are still some problems that need further study, such as emotional factors, whether factors such as interaction with customers at work will affect turnover intention, and turnover intention changes and views on turnover of modern young employees with individual pursuits. The food delivery riders have such a high turnover rate, but there still lacks empirical research on them. Therefore, it is necessary to carry out theoretical and practical research on turnover intention of food delivery riders in the Chinese context.

2.5 Work-family relationship

2.5.1 Concept of work-family relationship

The work-family relationship can be discussed from three aspects of work-family conflict, work-family balance and work-family enrichment.

2.5.1.1 Conflict of work-family relationship

Research on work-family relationship originates from the research by Kahn et al. (1964). The initial research contends that as employees have multiple roles in family and work, conflicts

will arise when the family role and work role cannot strike a balance. This is the earliest work-family conflict. Bartolomé (1972) argues that male managers are more likely to feel the conflicts caused by the work-family value system. Beutell (1985) proposes work-family conflict and family-work conflict according to the requirements of family role responsibilities and work role responsibilities. The former refers to the impact of family roles on work and the latter refers to the impact of work roles on family. Both conflicts can be divided into three categories, namely, time conflict, tension conflict and behavioral conflict. As for time conflict, a person's total time is limited, competition for time occurs when the allocation of time for work and family cannot meet their needs, and this will result in conflicts. Tension conflict is stress conflict occurred when work or family causes individuals to produce certain emotions such as anxiety, frustration, and irritability, which will affect the performance of the duties of the other role. Behavioral conflict refers to the conflict that arises due to the inconsistency of the value recognition and behavioral style of individuals required by the family and work (Burke, 2010) .

2.5.1.2 Work-family Balance

Although research on the work-family relationship originates from research on their conflict, with the continuous development and deepening of research, scholars have gradually believed that there is also a balance between work and family, that is, the relationship between family and work is equivalent to the relationship between work and family. Greenblatt (2002) believes that work-family balance means that there is no conflict in the process of balancing work and family. This is also representative of early views, that is, balance means no conflict. Frone (2003) believes that employees have no or few conflicts between family and work, but they have received a lot of promotion, that is, the benefits outweigh the losses. Voydanoff (2005) argues that the resources obtained by work and family can meet the needs, and employees can actively participate in work and family activities. Grzywacz and Butler (2005) contend that work-family balance is the balance of employee roles in two fields, and it is achieved through cooperation and sharing between roles in the two fields. Greenhaus and Powell (2006) propose that there is a mutually reinforcing relationship between family and work. When employees obtain a

pleasant mood and feeling in one field, they will also bring this perception to the other field and promote effectiveness in the other field. This mutually reinforcing relationship constitutes a balance between the two.

2.5.1.3 Work-family enrichment

Siebert (1974) describes work-family enrichment as work-family relationship facilitation. Crouter (1984) describes the enrichment relationship as work-family spillover. Greenblatt (2002) proposes that the work-family relationship only contains the relationship of conflict and balance (including promotion). Grzywacz and Bass (2003) describe it as the promotion of work-family relationship. Although the above expressions are different from each other, they are not too much different in essence. Some researchers believe that these expressions can be substituted for each other (Frone, 2003). Carlson et al. (2006) subdivide the mutually reinforcing relationship between family and work into work-family relationship promotion and family-work relationship promotion. Greenhaus and Powell (2006) propose that work-family enrichment relationship means that the experience and ability gained in one field of family and work can also improve performance in the other one, which is a form of one field promoting the other field. Family work enrichment is also two-way, namely family-work enrichment and work-family enrichment.

2.5.2 Influence of work-family relationship

The work-family relationship affects individuals and organizations. Amstad et al. (2011) divide the influences of work-family conflict into influence on work, influence on family, and influence on specific areas. From the perspective of employees, the influence results include the following aspects:

2.5.2.1 Personal health

Grzywacz and Marks (2000) propose that the work-family enrichment is positively related to the level of mental health. Frone (2003) contends that if employees have been facing work-family conflicts, they will produce negative emotions such as despair, depression, anxiety and

tension. Work-family conflicts can cause individual emotional tension and fatigue and also affect drug abuse of employees, which will lead to health problems (Grzywacz & Bass, 2003). Williams et al. (2006) argue that work-family enrichment can keep employees healthy.

2.5.1.2 Job and life satisfaction

Wiley (1987) contends that family work conflict exerts an impact on both life satisfaction and job satisfaction. Wayne, Musisca, and Fleeson (2004) studied the conflict and promotion between the five personality traits and family work relationship and found that family work enrichment positively affects employees' family satisfaction. Zheng and Chen (2006) argues that married employees have higher work-family conflicts than single ones. Work-family conflict negatively affects job satisfaction and organizational commitment and positively affects turnover intention of employees. Wei (2009) contends that employees under the age of 40 have a higher perception of the positive effect of work-family relationship. Employees with higher education levels are more sensitive to the perception of work-family relationship. The mutual promotion of work-family has a positive predictive effect on life satisfaction as well as job performance. Hakanen, Peeters, and Perhoniemi (2011) tracked the impact of work-family relationship on marriage and argues that the two have a positively promoting relationship, which can reduce individual negative emotions and improve satisfaction.

2.5.1.3 Job performance

Kossek and Ozeki (1999) adopted qualitative and quantitative methods to analyze the relationship between family work conflict and performance, turnover rate, absentee rate, organizational commitment, work engagement and burnout, and believes that work-family conflict exerts a negative impact on employees' work engagement and job performance. Wayne, Randel, and Stevens (2006) proposed that the family work enrichment relationship positively affects employees' work attitude and improves sense of happiness of the employees. Chen et al. (2017) adopted a meta-analysis method and propose that family work conflict is negatively related to job performance, family work promotion has a significant positive correlation with job performance, and cultural context plays a partial mediating role between

family work relationship and job performance. Wang (2009) studied the influence of work-family relationship on job performance of employees. Results show that all dimensions of work-family relationship have a significant impact on job performance, and the degree of influence of each dimension is different. Bao (2019) studied the relationship between work-family two-way conflict and job performance and proposes that work-family conflict negatively affects job performance, with an inverted U-curve relationship between the two. Job satisfaction plays a partial mediating role between family work conflict and job performance.

It can be seen from the literature that a positive work-family relationship promotes job performance, while a conflicting and negative work-family relationship will reduce job performance of employees.

2.5.1.4 Occupational commitment and turnover intention

In terms of impact on occupational commitment, Wiley (1987) argues that work-family is negatively related to organizational commitment. Allen et al. (2000) believe that a balanced work-family relationship can enhance occupational commitment of employees. Kuang, Gao, and Li (2009) propose that family work conflict negatively affects organizational commitment and positively affects turnover intentions, while occupational commitment plays a mediating role in these impact processes. Occupational commitment plays a complete mediating role between family work conflict and turnover intention. Li (2011) believes that work-family balance will positively affect organizational commitment, family satisfaction and family performance, and the family work enrichment relationship of knowledge workers has a more significant positive relationship with their job performance and satisfaction.

In terms of impact on turnover intention, Shaffer et al. (2001) contend that work-family conflicts will prompt turnover intention of employees. Boyar et al. (2003) believe that work-family conflicts may eventually lead to turnover behaviors of employees. Cheng et al. (2008) argue that family work conflict is positively related to turnover intention, with a r of 0.233. Pressure, behavior and time in family work conflict are positively related to turnover intention. Family work conflict can predict turnover intention.

2.5.3 Measurement of work-family relationship

2.5.3.1 Measurement of work-family conflict

Netemeyer, Boles, and Mcmurrian (1996) designed a work-family conflict scale which was tested from the two dimensions of the mutual influence of family and work, with each dimension having five items. The questionnaire has been widely applied. Kelloway, Gottlieb, and Barham (1999) developed the family work conflict scale containing 22 items; because work-family conflict and family-work conflict are two aspects; subsequent researchers selectively adopt the scales according to their own research objectives. Carlson, Kacmar, and Williams (2000) designed a work-family conflict scale based on the six dimensions formed by time and pressure, behavior and family, and work relationships. Li and Zhao (2009) adopted the method of in-depth interview and questionnaire survey to modify Carlson's scale to suit the Chinese cultural background. They selected 30 items in four dimensions of organizational support, leadership support, emotional support, and instrumental support and issued questionnaires among employees for verification. The results show that both the reliability and validity of the revised questionnaire are good. Ma et al. (2014) adopted Carlson's scale to conduct research, and the results show that work flexibility has a significant negative impact on family work conflict, and the flexibility of family affairs also has a significant negative impact on family work conflict.

2.5.3.2 Measurement of work-family balance

Grzywacz and Marks (2000) developed a family work balance scale with 16 items. Clark (2001) measured the role conflict in work-family, satisfaction, and the intimacy between family and employees. Greenhaus and Powell (2003) measured the time spent by employees on family and work and established a family work balance relationship scale from three aspects based on the degree of investment in family and work and satisfaction. Frone (2003) argues that work-family balance can be divided into four dimensions of work-family two-way conflict and work-family two-way promotion for measurement. Carlson, Grzywacz, and Zivnuska (2009) compiled a work-family balance scale with 6 items, which has good reliability and validity. Research has

confirmed the difference between work-family balance, conflict and enrichment. Zhao, Chen, and Yang (2018) developed a scale for work-family balance which consists of 4 first-order factors and 18 second-order items. The four first-order factors are family care, leisure vacation, flexible work, and employee support. A questionnaire was issued for verification, and the results showed that the reliability and validity of the questionnaire are good, and it is suitable for measurement of work-family balance in the Chinese context. Wang and Lu (2019) adopted the work-family relationship balance scale developed by Grzywacz and Marks (2000) to survey the married employees of companies in South China. In the survey, questionnaires were divided into employee version questionnaire and spouse version questionnaire and were distributed simultaneously to the couples, both of whom were required to fill out the questionnaire. The main research content is the impact of work-family balance on family relationship.

2.5.3.3 Measurement of work-family enrichment

Wayne, Musisca, and Fleeson (2004) developed a work-family enrichment scale which contains a total of eight items. Carlson et al. (2006) formulated a work-family enrichment scale which contains nine items. Tang, Ma, and Wang (2009) formulated a work-family enrichment scale for Chinese families which mainly includes two directions of family work enrichment and work family enrichment. Each direction includes psychological enrichment and instrumental enrichment, thus forming four combinations. The reliability and validity of the questionnaire are relatively good. As for the scales of these three types of relations, the most widely used scale is the one compiled by Carlson et al. (2006), which has good reliability and validity. Yang (2009) translated Carlson's (2006) scale into Chinese and invited five experts to modify the questionnaire. The questionnaire was tested, and 30 question items were retained, including five dimensions, namely, work-family efficiency, work family psychology, development of family and work, emotional relationship between family and work, and interactive development of family and work.

2.5.4 Summary of work-family relationship review

Scholars conceptually divide the work-family relationship into conflict, balance, and enrichment, and believe that this is the relationship of influence of one field on the other. The measurement of work-family relationship is also divided into three types, but the most widely used scale is the one formulated by Carlson et al. (2006) and Carlson, Kacmar, and Williams (2000). The scale is divided into two dimensions of conflict and balance. Work-family relationship also produces far-reaching impacts on factors including personal health, work and life satisfaction, job performance, professional commitment and turnover. Previous research has produced relatively fruitful results, but there are also some limitations, such as the role of work-family relationship in interaction with work events and emotional dissonance, and the performance and impact of work-family relationship among the food delivery riders. All of these provide room for research for this thesis. As the realistic starting point of this research is turnover of food delivery riders, we will focus on the impact of work-family conflicts on the work status of food delivery riders and their performance.

2.6 Job Demands-Resources Theory and Affective Events Theory

2.6.1 Job Demands-Resources (JDR)

Karasek (1979) proposed the job demand-control model (Job demand-control model, JDC) which believes that previous research on job stress lacks participation of job control. The JDC model combines job requirements (the part that brings stress to employees) and job control (the degree of autonomy of employees at work) to form the work environment design of high demand-high control and low demand-low control. However, the influence of this model is limited, and there are too few considerations on organizational relations. Johnson and Hall (1988) added the dimension of social support to JDC and formed a model of job demand-job control-social support (JDACS). Wu, Zhang, and Wu (2010) believe that the new model has limited explanatory power and require the control model to divide job characteristics into job

control, job demands, and social support, and its application range is not wide. The job demands-resources model divides job characteristics into job demands and job resources. The results of concern include the mental health of employees and the results of organizational activities, highlighting the impact of job characteristics on workers and organizations. The research should strengthen analysis of the job characteristics of employees and apply the analysis results of the job demands-resources model to the work process design so as to protect the physical and mental health of employees. Demerout et al. (2001) contend that the JDC model proposed by Karasek (1979) has not received research support in the academia, so they propose the job demands-resources (JDR) model.

The foundation of JDR model is the conservation of resource theory (Zhang & Xu, 2009), but the core of the conservation of resource theory is based on individuals. When the resources sought and occupied by individuals are consumed or when the desired resources cannot be obtained, there will be psychological negative emotions. Zhang and Xu (2009) believe that this theory also has shortcomings which are mainly manifested as follows. First, research on individual cognitive factors such as demographic characteristics, personality characteristics, and self-cognition is insufficient, and exhaustion of employee emotions by job requirements and job consultation is emphasized. Second, research on the interaction of variables within the model is insufficient, such as the interaction between job resources and job requirements. Third, research on the impact of the model on the organization is insufficient and there are few measurements of organizational outcome indicators, such as measurement of organizational performance and the organizational environment. However, as scholars continue to study JDR, Qi and Wu (2018) argue that individual resources, individual requirements, individual differences, and internal and external variables of the organization have also been introduced into the JDR model, constructing a JDR model with individual resources and working context.

JDR analyzes factors causing employee burnout from the perspective of job requirements on individuals based on the conservation of resource theory. JDR theory reveals the mechanism of burnout. Burnout is produced under the process of job demands that cause employees to be

overburdened and exhausted. The lack of supplements and incentives of related resources will exacerbate withdrawal behavior and negative work emotions at work.

The JDR theory is an important theory to explain burnout. Xanthopoulou et al. (2007) studied the role of individual resources in JDR theory and contend that individual resources do not offset the relationship between job demands and burnout. On the contrary, individual resources moderate the relationship between job resources and input consumption and affect the perception of job resources. Kim et al. (2018) collected data from the public sector and analyzed the impact of emotional labor and JDR of the service staff on their burnout. Results show that job demands lead to increase of burnout, while job resources lead to decrease of burnout. Among the job demands, customer contact has the greatest positive impact on burnout. Engur, Kiremitci, and Boz (2019) carried out research on employee job demands and resources compensation by issuing a questionnaire. Tomo and Stefania (2019) used the JDR concept to evaluate employees' well-being in healthcare. Results show that the job demands-resources model can explain the differences in the working environment well, and personality traits can cope with the appearance of negative impacts in the working environment. Cooke, Brant, and Woods (2018) used the JDR model to conduct a survey and research, and results show that public service motivation, as a kind of employee work input resource, has a buffer effect on employees' perceived work obstacles.

In summary, JDC theory has strong explanatory power and is widely used in all aspects of organization and human resource management. This theory decomposes employees' job resources and combines with other theories to generate theoretical results about job stress-job resources-job results. Scholars have applied JDR theory to study the burnout and working status of various groups. It is feasible to adopt JDR theory to explain the job demands, job resources and working status of food delivery riders. Therefore, JDR theory is a theoretical basis for this research.

2.6.2 Affective Events Theory (AET)

Emotion and mood have a strong relationship with employees' work, which has been widely recognized by scholars. Weiss and Cropanzano (1996) propose the affective events theory based on the affective experience and affective reactions of employees at work within in the organization. They explain the incentives, structure and consequences of employees' affective reactions at work and establish the model of "event-affection-attitude and behavior" model to explain relevant behaviors, such as research on generation of positive emotions and context of the emotional generation (Walter & Bruch, 2008), and employees' sense of respect and pride for their own jobs (Blader & Tyler, 2009).

According to the affective events theory, work environment will lead to the occurrence of certain work events for employees. Due to the influence of personal characteristics, work events may be positive or negative. As the subject of the events, employees will trigger their own affective reactions, which in turn affect their behavior. The influence is manifested in two aspects. One is direct emotional influence on behavior, such as influence on subsequent work engagement after being bullied or criticized; the other is indirect influence, that is, affective reactions do not first affect behaviors such as work engagement, but affect employees' attitudes to work, which in turn affects work behavior. Turnover intention of employees may be generated due to the accumulation of long-term negative dissatisfaction, and the resignation is truly formed because "there will be no development prospects" (Weiss, 2003). There is a difference between the affective reactions and job satisfaction of employees. Affective reactions can be used as a dependent variable for employee satisfaction. The relationship between variables such as characteristics of the employees' work environment, emotional feedback, and attitude and behavior is verified, and it is believed that affective reactions of employees change over time (Duan et al., 2011).

According to the affective events theory, affective reactions include mood and emotion. The influence of mood is longer and less intense, and there is generally no definite cause. Emotion is more directly related to work events and should be paid more attention in research.

There are many events of employees at work, but not all events will produce affective reactions. There will be an evaluation process before affective reactions (Choi et al., 2011). Employees' evaluation of events includes whether it is beneficial and whether it meets personal values. The evaluation results affect the affective reactions.

Mignonac and Herrbach (2004) divide the work events of employees into positive, negative, and neutral events. Research results indicate that affective reactions play a mediating role in employee work events and influencing process of affective reactions. The mediating effect is more obvious especially when negative events occur, while the mediating effect is not significant for positive events. Affective reactions come from the work environment. If employees are in a low-skilled and repetitive environment, the less stimulus brought by the environment can easily cause the employees to feel bored (Game, 2007). When employees are in an environment with strong autonomy, support from superiors, and a certain speaking right, their job satisfaction will be increased. Such a positive environment will make employees generate affective reactions such as happiness. Fisher (2000) argues that the intensity of affective reactions during work is related to job satisfaction. Grandey, Tam, and Brauburger (2002) studied the relationship between work events, individual traits and affective reactions of employees, and results show that the main cause of employee pride is affirmation of work by leaders. When employees have negative emotional characteristics, they are prone to generate negative affective reactions, which in turn will increase their turnover intention. Negative affective reactions can affect turnover intention of employees by affecting their affective commitment (Fisher, 2002). Wayne, Randel, and Stevens (2006) empirically prove the relationship between the variables of the affective events model and confirm validity of the model.

Affective events have powerful interpretation capabilities in organization and manpower management. Hareli and Rafaeli (2008) contend that affective reactions of employees in the organization not only affect themselves, but also affect others' attitudes and behaviors. They affect others and are also affected by others, thus forming a circular influence in the organization.

Dencker, Joshi, and Martocchio (2008) propose that experience will affect subsequent work attitude and behavior of employees based on the affective events theory.

There is also applied research with affective events theory as the basis. The nature of employee turnover behavior is the affective reaction to the work events (Zhao et al., 2007). Rupp and Spencer (2006) and Cano, Sams, and Schwartz (2009) studied the impact of unfair behavioral events between customers and employees at work on the affective reactions of employees, which, in turn, affects employees' work attitudes and behaviors. The events include performance evaluation to employees. Employees will worry about their own performance evaluation, and the evaluation results will make employees generate various affective reactions, thus affecting their work behavior. Therefore, performance evaluation of employees should not be too frequent, and affective factors of employees should be considered in the evaluation

In summary, affective events theory has a powerful explanatory ability for the “event-emotion-attitude and behavior”. Food delivery riders and customers have frequent interactions which also belong to work events. According to the affective events theory, positive or negative interactions will prompt food delivery rider to generate relevant affective reactions, and the riders will generate corresponding attitudes and behaviors when they work with this emotion. Therefore, the affective events theory plays an important role in explaining the work status of the food delivery riders and it is an important theoretical basis for this thesis.

2.7 Hypotheses

2.7.1 Customer injustice and emotional dissonance, occupational commitment and turnover intention

2.7.1.1 Relationship between customer injustice and emotional dissonance

According to the “event-emotion-attitude and behavior” model of the affective events theory, interaction events between customers and employees will trigger affective reactions between both parties. Harris and Reynolds (2003) argue that customer injustice will cause insomnia, anxiety and other emotional dissonance in the long run. The interaction events between

employees and customers include negative events (Mignonac & Herrbach, 2004) and positive events (Blader & Tyler, 2009). Negative events frequently occur in social life and cause huge losses (Yi & Gong, 2008). Cano, Sams, and Schwartz (2009) studied the unfair behavior between customers and employees in the work process and found that it could trigger employee affective reactions. customer injustice has significantly increased employees' sense of unfairness (Kurtessis et al., 2015). Grandey (2003) argues that customer mistreatment can lead to emotional labor of employees. In face of positive or negative customer behavior, employees can mobilize their own resources to adapt to the work environment. Individuals with low status such as food delivery riders and ordinary waiters, are more likely to present empathy and understanding behavior in a low profile (Keltner, Gruenfeld, & Anderson, 2003). The interaction or self-regulation between high-power individuals and unfair customers is relatively complicated, such as the doctor-patient relationship. The food delivery riders and the customers are interdependent in the exchange process, and unfair behavior will trigger negative emotional feedback (Dallimore, Sparks, & Butcher, 2007). Colquitt, Scott, and Rodell (2013) contend that interpersonal injustice is positively related to stress, negative influence, and counter-productive work behavior. Qiu (2016) investigated service employees in nine industries and contends that customer injustice will significantly affect emotional perception of employees and aggravates their emotional dissonance. Managers need to improve the emotional dissonance of employees by emotional support and decentralization at work. Fan (2017) argues that customer injustice has a significant positive impact on emotional dissonance of employees.

2.7.1.2 Relationship between customer injustice and occupational commitment

Blau (1985) proposes that occupational commitment is mainly an emotional attitude towards career. Meyer and Allen (1997) define occupational commitment as an individual's attitude towards his own occupation. Colarelli and Bishop (1990) believe that if employees have bad environmental experiences such as role conflicts in the work environment, their occupational commitment will be weakened. Lee, Carswell, and Allen (2000) believe that occupational commitment is the emotional connection between individuals and occupations. Goulet and

Singh (2002) believe that job insecurity negatively affects organizational commitment. When employees encounter customer injustice, they will reflect on their future work (Rafaeli, Erez, & Ravid, 2012), which will affect their occupational commitment. When encountering customer injustice, employees will end the unpleasant interaction process as soon as possible, which will exert a negative impact on the occupational commitment of employees. According to the theoretical logic of “event-emotion” in the affective events theory, the occurrence of relevant work events will affect employees’ emotional attitudes at work. customer injustice is a typical event in the affective events theory. Once an event occurs, there will be corresponding emotional changes. One of the emotional manifestations closely related to the food delivery riders is occupational commitment. Negative events will cause negative attitudes and reduce occupational commitment.

2.7.1.3 Relationship between customer injustice and turnover intention

Customer injustice can also cause employees to produce job satisfaction problems, which further promotes the increase of employees’ turnover intention (Hulin, 1991). Harris and Reynolds (2003) argue that customer injustice will increase the pressure of enterprises on personnel turnover, re-recruitment and personnel training. Walsh (2011) believes that customer injustice will bring a kind of pressure, which has a great impact on employees’ follow-up work performance and turnover. Li and Zhou (2012) contend that turnover intention is a result of customer injustice. The turnover rate of the food delivery riders is relatively high. If they suffer unfair behavior from customers for a long time, they are prone to generate turnover intention. Zhao et al. (2007) argue that behaviors such as employee turnover are essentially the affective reactions of work events to employees’ work. Fan (2017) proposes that customer injustice in work interactions has a positive effect on turnover intention of employees.

2.7.1.4 Hypotheses of the relationship between customer injustice and emotional dissonance, occupational commitment, and turnover intention

The events that food delivery riders encounter in their daily work can be divided into two categories. The first are negative events which are related to factors that hinder the achievement

of goals and negative emotions. The second are positive events which are related to goal achievement and positive emotions. According to the starting point of this research, customer injustice suffered by the food delivery riders is a negative event, and the emotions and behaviors generated have negative characteristics.

According to the job demands-resources (JDR) theory, as job demands require higher investment for the work of food delivery riders, they need to get “likes” from customers while completing their work, so when suffering from customer injustice, most of them can only swallow their anger for the performance results. The psychological process of the first stage of the JDR theory is formed, that is, the inconsistency of inner and outer performance in response to unfair behaviors leads to individual resource deletion and exhaustion of riders and negative mentality and behaviors such as decrease of job satisfaction, insufficient work engagement, and reduction of enthusiasm. The psychological process of “performance requirements of the food delivery platform-encountering customer injustice-generating individual emotional resource exhaustion-affecting emotional dissonance, occupational commitment and turnover intention” has been formed. According to the logic of “event-emotion-behavior” of the affective events theory, customer injustice will make the riders suffer from negative emotions and prompt them to consume resources to engage emotional regulation.

Based on the above literature on the relationship between customer injustice and emotional dissonance, occupational commitment and turnover intention, according to job demands-resources theory and affective events theory, and with regards to the work status of food delivery riders, the following research hypotheses are proposed:

Hypothesis 1: Customer injustice is positively related to the emotional dissonance of food delivery riders.

Hypothesis 2: Customer injustice is negatively related to the occupational commitment of food delivery riders.

Hypothesis 3: Customer injustice is positively related to the turnover intention of food delivery riders.

2.7.2 Relationship between emotional dissonance, occupational commitment, and turnover intention

2.7.2.1 Relationship between emotional dissonance and occupational commitment

The individual values of employees and their emotions at work such as self-esteem will affect their occupational commitment (Carson et al., 1997). Employees will make judgments based on their work conditions. Positive value judgments exert positive influence on occupational commitment (Aryee & Tan, 1992), while negative value judgments exert negative influence on occupational commitment. Lee, Carswell, and Allen (2000) propose that occupational commitment is negatively related to burnout. Irving, Coleman, and Cooper (1997) and Meyer, Allen, and Smith (1993) contend that the affective commitment and normative commitment of occupational commitment are positively related to positive emotional expressions such as job satisfaction. Rilter (2001) studied the relationship between emotional dissonance and occupational commitment and argues that long-term emotional dissonance of employees at work will exert a negative impact on their occupational commitment.

2.7.2.2 Relationship between emotional dissonance and turnover intention

According to the work-related, individual-related and external-related three-dimensional models of employee turnover intention (Quarles, 2011), emotional dissonance is a work-related and individual-related factor and has become an important factor affecting employee turnover intention. Emotional dissonance will decrease the sense of job gain, satisfaction and involvement and will lead to withdrawal behavior and negative emotions in the subsequent work (Demerouti et al., 2001).

2.7.2.3 Relationship between emotional dissonance and occupational commitment and turnover intention

According to the JDR theory, the emotional dissonance of food delivery riders is the result of the first psychological process in the theory, that is, the customer injustice will exhaust the riders' energy and emotional resources and lead to emotional dissonance. However, the

occurrence of this process will not affect the service targets of the food delivery service. According to the second psychological process, the individual resources of the food delivery riders are not enough to compensate for the emotional dissonance, so that their work engagement, job satisfaction and emotions continue to decrease. When this negative emotion acts on occupational commitment, it is manifested as a decrease in occupational commitment. In combination of the affective events theory, emotional dissonance of the food delivery riders affects occupational commitment and turnover intention. This process is consistent with the “emotion-attitude and behavior” category of the “event-emotion-attitude and behavior” theory.

Based on the existing literature research, the job demands-resources theory, and the affective events theory, and in combination with the realistic work of the food delivery riders, this research proposes the following hypotheses:

Hypothesis 4: Emotional dissonance is negatively related to the occupational commitment of food delivery riders.

Hypothesis 5: Emotional dissonance is positively related to the turnover intention of food delivery riders.

2.7.2.4 Hypothesis on occupational commitment and turnover intention

Steers (1977) argues that the affective reaction factors of employees at work are one of the reasons for their turnover intention. Meyer et al. (2002) found that affective commitment has a significant negative impact on employees' turnover intention. Jiao, Wei, and Chen (2017) also believed that the higher the affective commitment of young science and technology talents, the lower their turnover intention. Zhou, Zhang, and Yang (2018) took nurses in a hospital in Anhui Province as an example and contends that their occupational commitment and turnover intention are negatively correlated. The higher the occupational commitment, the lower the turnover intention. Zhang (2019) conducted a study on kindergarten teachers and proposes that affective commitment has a negative predictive effect on turnover intention.

Based on the above research on the relationship between occupational commitment and turnover intention, it is found that the change of occupational commitment is affected by the

second process of the JDR theory, that is, the negative emotions generated in the first process are not effectively compensated, which will reduce the occupational commitment of the food delivery riders. Under the premise of customer injustice, the change of occupational commitment precedes turnover intention and exerts influence on it. Based on analysis of the relationship between occupational commitment and turnover intention by previous literature, this thesis proposes the following hypothesis:

Hypothesis 6: Occupational commitment is negatively related to the turnover intention of food delivery riders.

2.7.3 Mediating role of emotional dissonance

Emotional dissonance is the affective reaction outcome of the food delivery riders to customer injustice. Mignonac and Herrbach (2004) believe that affective reaction plays a mediating role in the influence on employee work events and affective reactions, and the mediating role of negative emotions is stronger, compared to positive emotion. According to the theoretical basis of this research, emotional dissonance plays a mediating role in customer injustice, turnover intention, and occupational commitment. Customer injustice will lead to negative impacts such as emotional dissonance to the food delivery riders. The more customer injustice food delivery riders suffer, the more serious their emotional dissonance will be. Higher emotional dissonance may result in lower occupational commitment and may also result in higher turnover intention. Therefore, this research proposes the following hypotheses:

Hypothesis 7: Emotional dissonance mediates the relationship between customer injustice and the occupational commitment of food delivery riders.

Hypothesis 8: Emotional dissonance mediates the relationship between customer injustice and the turnover intention of food delivery riders.

2.7.4 Mediating role of occupational commitment

Meyer et al. (2002) argue that affective commitment has a significant negative impact on turnover intention of employees. Delp et al. (2010) believe that increase of stress such as emotional dissonance in the career of employees will reduce occupational commitment. Therefore, the influencing relationship between emotional dissonance-occupational commitment-turnover intention is formed. Occupational commitment plays a mediating role in the relationship between emotional dissonance and turnover intention.

Chu, Ding, and Xiao (2019) analyze the relationship between career growth and turnover intention of young talents with occupational commitment as the mediator. Wang, Qi, and Wang (2019) study the role of mental and emotional dissonance in hospital nurses with occupational commitment as the mediator. Therefore, this study proposes the following hypotheses:

Hypothesis 9: Occupational commitment mediates the relationship between customer injustice and the turnover intention of food delivery riders.

Hypothesis 10: Occupational commitment mediates the relationship between emotional dissonance and the turnover intention of food delivery riders.

Combining the previous hypotheses, because customer injustice is considered an antecedent of emotional dissonance (H1), and emotional dissonance could reduce occupational commitment (H4), and occupational commitment leads to turnover intention (H6), it is anticipated that customer injustice may predict turnover intention through a sequential mediation effect. When food delivery riders perceive customer injustice, they are more likely to have emotional dissonance, which in turn may reduce their occupational commitment and eventually increase their turnover intention. Therefore, the following hypothesis is proposed.

Hypothesis 11: Customer injustice is positively related to the turnover intention of food delivery riders through a sequential indirect effect via (a) emotional dissonance and subsequent (b) occupational commitment.

2.7.5 Moderating role of work-family conflict

In the research literature on work-family conflict, the phenomenon of mutual spillover between work and family has received widespread attention. Grzywacz and Marks (2000) found that these spillovers include 1) negative spillover from work to home; 2) positive spillover from work to family; 3) negative spillover from family to work; and 4) positive spillover from family to work. It is believed in this study that the work characteristics of the food delivery riders, such as the inability to spend time with their families during vacations and family meals, and the lack of support from colleagues and leaders in traditional organizations at work, make the negative spillover from work to family prominent and aggravate the work-family conflict. Researchers of work-family conflict generally believe that high levels of WFC will generate work stress and consume employees' resources, and ultimately negatively affect employees' work attitudes and behaviors (Wayne et al., 2016). Fei (2014) argues that work-family conflict can positively predict emotional exhaustion and other emotional dissonance in a significant manner with teachers as the sample. In her research on public security traffic police, Liu (2008) contends that different degrees of work-family conflicts have significantly different impacts on occupational commitment. Liu (2011) analyzed that work-family conflicts of teachers can negatively affect their occupational commitment. Luo (2016) analyzed the relationship between work-family conflicts and occupational commitment of aviation safety officers. Under different research objects and different influencing factors, work-family conflicts have different effects on occupational commitment.

This study puts forward Hypothesis 2 and Hypothesis 4 based on the work characteristics of the food delivery riders. It is expected that the occupational commitment of the food delivery rider is negatively affected by customer injustice and the emotional dissonance of themselves. Based on the resource conservation theory and the negative impact of work-family conflict as a pressure to consume individual resources on employee attitudes and behaviors, we argue that work-family conflict will reinforce the impact of customers injustice on turnover intention through emotional dissonance and occupational commitment of food delivery riders.

Based on the above analysis, this research proposes the following hypotheses:

Hypothesis 12: Work-family conflict will accentuate the relationship between customer injustice and the turnover intention of food delivery riders through emotional dissonance, such that when work-family conflict is high, customer injustice is more positively related to the turnover intention of food delivery riders by increasing their level of emotional dissonance.

Hypothesis 13: Work-family conflict will accentuate the relationship between customer injustice and the turnover intention of food delivery riders through occupational commitment, such that when work-family conflict is high, customer injustice is more positively related to the turnover intention of food delivery riders by decreasing their level of occupational commitment.

Hypothesis 14: Work-family conflict will accentuate the relationship between customer injustice and the turnover intention of food delivery riders, such that when work-family conflict is high, customer injustice is more positively related to the turnover intention of food delivery riders.

2.8 Research model

Based on all the above hypotheses as well as the theoretical basis of this research (“event-emotion-attitude” of the affective events theory and the job demands-resources theory), the conceptual model between customer injustice, emotional dissonance, occupational commitment and turnover intention is proposed as shown in Figure 2.1.

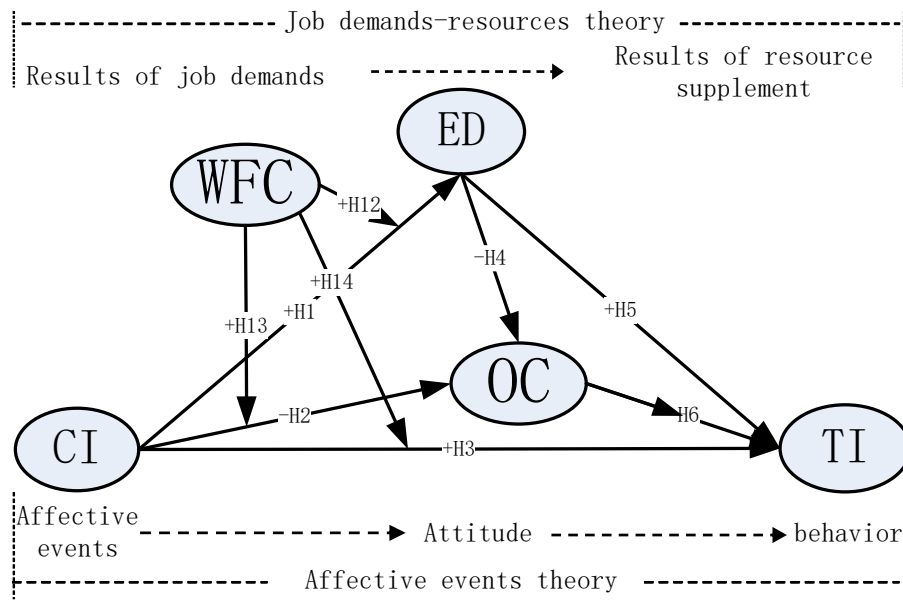


Figure 2.1 Research model

Notes: ED=emotional dissonance, TI=turnover intention, WFC=work-family conflict, CI=customer injustice, OC=occupational commitment

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Chapter 3: Research Methods

This chapter describes the scales used for key variables as well as the data collection process and data processing methods.

3.1 Sample and data collection process

This study targeted food delivery riders as the survey respondents, and the data were collected by administrating paper-and-pencil questionnaires on the spots where the riders work or rest.

First, a pilot survey of the questionnaire was conducted to check whether the food delivery riders can well understand the questions so that they can better answer the questions in the formal questionnaire. From October 1st to 10th, 2019, 43 food delivery riders were surveyed on the spot in Nanning, Liuzhou and Qinzhou. The main purpose was to examine their understanding of the items and whether the expression was in line with their daily work. The expression of the items was adjusted based on the opinions of the surveyed riders to ensure the quality of the questionnaire. In other words, the questionnaire was revised and finalized with the feedback and comments from the pilot survey.

From November 1 to December 5, 2019, a total of 471 paper-and-pencil questionnaires were distributed in Nanning, Qinzhou, Beihai, Guilin, and Liuzhou in Guangxi Province, southwest of China. Since the questionnaires were distributed, filled out and collected on-site, the number of questionnaires recovered was 471, with a recovery rate of 100%.

The collected questionnaires were sorted and screened: (1) we removed some perfunctorily filled questionnaires in which respondents chose the same answers and regarded these as “questionnaires not seriously filled in”; (2) we removed some abnormal values caused by unreasonable filling, such as “I work 140 hours per week”; (3) we removed some questionnaires that were not completely filled out due to food delivery tasks. A total of 62 questionnaires were

excluded. The number of valid questionnaires was 409 (75 in Nanning, 114 in Qinzhou, 79 in Beihai, 40 in Guilin, and 101 in Liuzhou), with a valid rate of 86.8%.

3.2 Data quality control

A pilot test was carried out on the data in advance. Exploratory factor analysis was used to compare the dimension design and verify the reliability to ensure the rationality of the questionnaire.

In order to ensure data verification and avoid problems such as entry errors, the printed questionnaires were numbered so that they can be checked back. In the data entry, two people worked together to check the data entry to avoid human error.

The quality control process is as follows:

1) Questionnaire content control: The original sources were referred to and relevant contents were translated according to the situation of the riders.

2) The Chinese questionnaire was translated back to English and compared with the original source.

3) The researcher investigated 43 food delivery riders in Nanning, Qinzhou and Liuzhou and asked them to read the pilot questionnaire items and voice their opinions. On this basis, the researcher revised the questionnaire to form the final version.

4) After questionnaire screening and processing, 409 valid questionnaires were left.

3.3 Measurements

3.3.1 Measurement of customer injustice

The scale developed by Skarlicki, Jaarsveld, and Walker (2008) was adopted to measure customer injustice. The scale tailored for a business environment was suitable for measurement of the interaction behavior and attitude between food delivery riders and customers. Based on the unfair attitudes and behaviors between the food delivery riders and customers in their

interaction, this study selected three items from the scale: namely, 1) Customers yelled at you; 2) Customers used condescending language; 3) Customers spoke aggressively to you.

3.3.2 Measurement of emotional dissonance

This study adopted the emotional dissonance measurement scale developed by Kruml and Geddes (2000). Yang and Li (2017) applied the scale to the research on emotional labor of leaders in China. With an experiment on the relationship between the emotional labor of leaders and classified performance of employees, they verified the validity of the scale in the measurement of employee emotional dissonance in China. The scale includes the following three items: 1) I show feelings to customers that are different from what I feel inside; 2) I have to cover up my true feelings when dealing with customers; 3) I fake the emotions I show when dealing with customers.

3.3.3 Measurement of turnover intention

This study adopted the turnover intention scale developed by Rosin and Korabik (1991). Jiang (2007) applied the scale to the research on the relationship between employee equity and turnover intention in China. This scale was also used in this thesis to measure the turnover intention of food delivery riders. The scale includes the following four items: 1) At this time in your career, would you want to quit this job if it were possible? 2) Are you planning to leave your job within the next six months? 3) Are you actively searching for another job right now? 4) Please indicate whether you have ever had thoughts of leaving your job.

3.3.4 Measurement of occupational commitment

This study adopted Blau's (1985) definition of occupational commitment that occupational commitment reflects an individual's attitude towards his or her occupation. The measurement of occupational commitment for food delivery riders in this study also adopted the "affective commitment" part of Blau's (1989) scale. The scale has also been applied in the Chinese context. For instance, Pei, Liu, and Tao (2007) applied it in the study of occupational commitment of

nurses, and Wang (2019) applied it in the study of employee performance. This study changed the occupation type in the scale to food delivery riders. The revised scale contained five items: 1) Working as a food delivery rider makes me happy; 2) I am proud of working in the delivery industry; 3) I am glad to be a food delivery rider; 4) I really identify with the profession as a delivery rider; 5) I am full of enthusiasm for the career as a food delivery rider.

3.3.5 Measurement of work-family conflict

This study adopted the scale compiled by Netemeyer, Boles, and Mcmurrian (1996) to measure work-family relationship. As the research focused on the impact of the riders' work on their family, five work-family conflict relationship items were selected as follows: 1) The demands of my work interfere with my home and family life; 2) The amount of time my job takes up makes it difficult to fulfill family responsibilities. 3) Things I want to do at home do not get done because of the demands of my job puts on me ; 4) My job produces strain that makes it difficult to fulfill family duties; 5) Due to work-related duties, I have to make changes to my plans for family activities.

The questionnaire was designed to score by a 6-point Likert scale.

Except for customer injustice, other variables were all measured from “completely disagree” to “completely agree”, with 1-point indicating that the respondents “completely disagree”, 2-point indicating that the respondents “disagree”, 3-point indicating that the respondents “basically disagree”, 4-point indicating that the respondents “basically agree”, 5-point indicating that the respondents “agree”, and 6-point indicating that the respondents “completely agree”. As for customer injustice, 1-point to 6-point respectively indicate that the respondents believe that the situation described “never”, “barely”, “occasionally”, “sometimes”, “often”, and “always” occur.

3.3.6 Demographic variables

The demographic variables in this study mainly include the gender, age, marriage, education level, number of dependents, and number of job changes in the past three years of the food delivery riders.

3.4 Reliability and validity

3.4.1 Communalities analysis of variables

SPSS was used to analyze variables. In this study, the observation items with communalities below 0.5 were deleted. The KMO values of each variable is as follows: the value of customer injustice was 0.683, the value of emotional dissonance 0.706, and the value of turnover intention 0.833. The value of occupational commitment was 0.838, and the value of work-family conflict was 0.873. The KMO values of all dimensions were close or greater than 0.7. The Bartlett's test of sphericity also reached a significant level ($p < 0.01$), and the communalities were all greater than 0.5, indicating that it is feasible to further analyze the variables. The analysis results were shown in Table 3.1.

Table 3.1 The results of KMO value and communalities

	KMO Value	Items	Communalities
CU	0.683	CU6	0.617
		CU7	0.721
		CU8	0.679
ED	0.706	ED1	0.694
		ED2	0.795
		ED3	0.738
TI	0.833	TI1	0.731
		TI2	0.737
		TI3	0.731
		TI4	0.674
OC	0.838	OC1	0.662
		OC2	0.727
		OC3	0.795
		OC4	0.592

WFC	0.873	OC5	0.614
		WFC1	0.548
		WFC2	0.784
		WFC3	0.741
		WFC4	0.722
		WFC5	0.704

Note: CI = customer injustice; ED = emotional dissonance; OC = occupational commitment; TI = turnover intention; WFC = work-family conflict

3.4.2 Exploratory factor analysis

The Bartlett's test of sphericity of each variable reached a significant level ($p < 0.01$). According to the criteria of Wu (2013), the following items were deleted: (1) items with factor loading less than 0.4, (2) items with cross loading, that is, loading appears on two or more factors.

The analysis method was as follows: factor extraction was conducted by principal component analysis, the principle of factor extraction being eigenvalue greater than 1, and the factors were rotated by Varimax. The KMO was 0.889, greater than 0.7, so factor analysis can be continued. According to the Total Variance Explained, a total of five factors with eigenvalues greater than 1 were extracted. The cumulative % of variance explained reached 70.68%, indicating that the cumulative factor interpretation ability has reached 70.68%, which is greater than the standard of 50%. In other words, the five factors have fairly good interpretation ability. The analysis results were shown in Table 3.2.

Table 3.2 Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.87	34.36	34.36	6.87	34.36	34.36	3.56	17.8	17.8
2	2.62	13.1	47.46	2.62	13.1	47.46	3.41	17.05	34.85
3	1.84	9.21	56.67	1.84	9.21	56.67	2.88	14.39	49.24
4	1.48	7.38	64.05	1.48	7.38	64.05	2.26	11.31	60.56
5	1.33	6.63	70.68	1.33	6.63	70.68	2.02	10.12	70.68
6	0.69	3.44	74.12						
7	0.65	3.24	77.36						
8	0.53	2.65	80.02						

Food Delivery Rider's Customer Injustice and Turnover intention: The Roles of Emotional Dissonance,
Occupational Commitment and Work-Family Conflict– Evidence from China

9	0.46	2.31	82.32
10	0.43	2.16	84.49
11	0.42	2.08	86.57
12	0.38	1.91	88.48
13	0.35	1.77	90.25
14	0.34	1.7	91.96
15	0.32	1.59	93.54
16	0.3	1.5	95.05
17	0.28	1.4	96.45
18	0.26	1.32	97.77
19	0.25	1.24	99.01
20	0.2	0.99	100

Based on the above analysis, the principal component analysis method was adopted to rotate the matrix. The rotation method was Kaiser orthogonal rotation, and after six iterations, convergence was achieved. Finally, the component matrix of variables after rotation was obtained, and since all variables met the criteria, there was no need to delete the items. The analysis results were shown in Table 3.3.

Table 3.3 Rotated component score matrix

	Component				
	1	2	3	4	5
CI6					0.750
CI7					0.811
CI8					0.769
ED1				0.785	
ED2				0.849	
ED3				0.802	
TI1			0.766		
TI2			0.837		
TI3			0.785		
TI4			0.777		
OC1		0.763			
OC2		0.805			
OC3		0.825			
OC4		0.787			
OC5		0.764			
WFC1	0.732				

WFC2	0.850
WFC3	0.811
WFC4	0.815
WFC5	0.810

Note: CI = customer injustice; ED = emotional dissonance; OC = occupational commitment; TI = turnover intention; WFC = work-family conflict

In the exploratory factor analysis, extraction was performed based on the criterion that the eigenvalue is greater than 1 and in the end five factors were extracted. The factor loading of each item met the standard requirement (> 0.5). The five common factors extracted were also consistent with the dimensions identified in the design of questionnaire, namely, customer injustice (CI), emotional dissonance (ED), occupational commitment (OC), turnover intention (TI), and work-family conflict (WFC).

3.4.3 Reliability analysis

The degree of internal consistency of the five factors obtained by the above analysis was the basis for further research, so the Cronbach's Alpha coefficient was used for analysis. When the coefficient was greater than 0.7, the reliability of the scale was high, and the reliability analysis of each variable was as follows. Customer injustice had 3 items, and its Cronbach's Alpha value was 0.755. emotional dissonance had 3 items, and its Cronbach's Alpha value was 0.826. Turnover intention had 4 items, and its Cronbach's Alpha value was 0.869. occupational commitment had 5 items, and its Cronbach's Alpha value was 0.881. work-family conflict had 5 items, and its Cronbach's Alpha value was 0.891.

The above analysis showed that the scale used in this study had high reliability and could support subsequent data analysis. The main reasons were as follows. First, the variables and items in this scale had been repeatedly verified at home and abroad. The research converted the measurement objects into food delivery riders. Second, the selection of the survey process and the survey objects was appropriate. This questionnaire survey adopted the method of distributing printed questionnaires on the spot. Food delivery riders filled in the questionnaire face-to-face with the research team, and they were also very concerned about this issue. Therefore, they took it seriously and the quality of the questionnaire was relatively high.

3.4.4 Validity analysis

3.4.4.1 Convergent validity analysis

The validity of the questionnaire analysis generally includes content validity and construct validity. The content validity control method in this study is as follows. The questionnaire items were compiled with reference to mature scales at home and abroad, and the opinions of 43 food delivery riders were surveyed. Based on the mature scale and the actual work of food delivery riders in China, the questionnaire was modified and improved, and the content validity proved to be good. Therefore, construct validity analysis and test were conducted for the sample validity analysis in the formal survey.

The validity test was performed by exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Exploratory factor analysis was performed in this study, as the items of the scale were compared with the original research supposition. Therefore, in this section, the validity of the sample was tested by confirmatory factor analysis.

According to the analysis results of EFA, self-reported variables were used for confirmatory factor analysis. The five-factor analysis was shown in Figure 3.1, and the other four-factor, three-factor, two-factor and one-factor analysis methods were the same. Finally, the five results were summarized in Table 3.3. As can be seen from the table, in the five factor analyses, the GFI of the five-factor model was obviously better than that of several other models, being the optimal option, and it also met the fit index standard. The analysis results were shown in Figure 3.1.

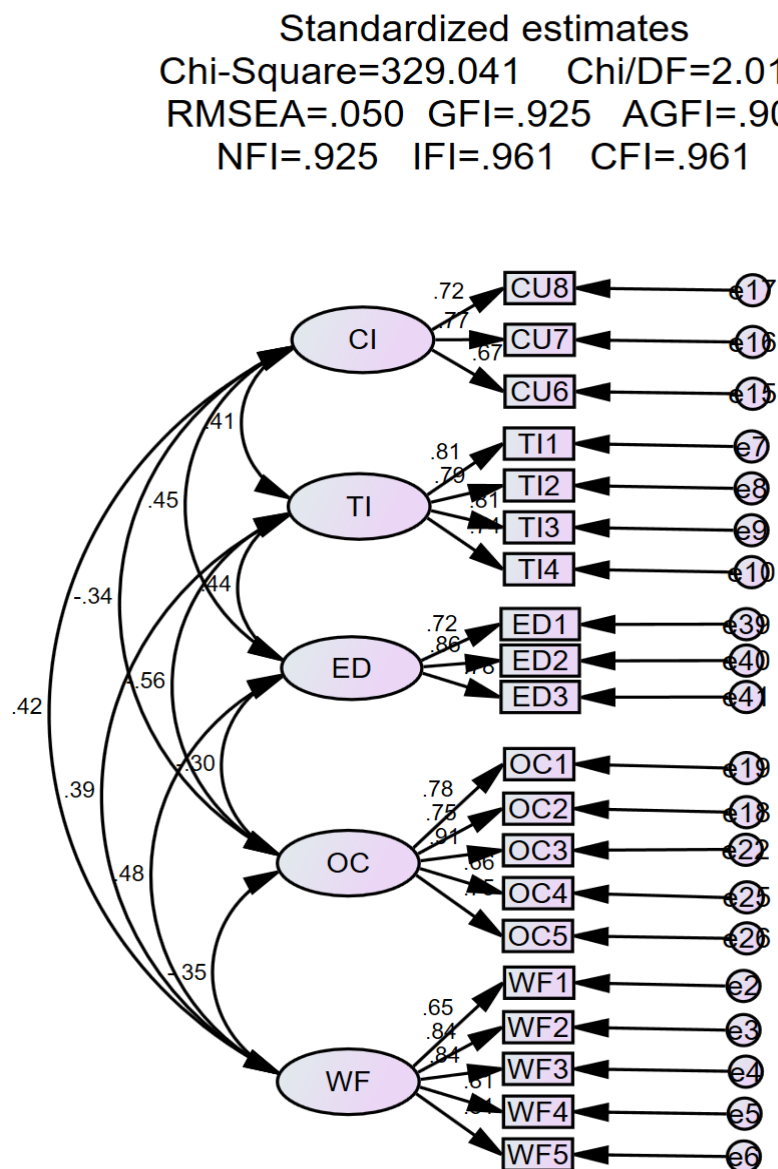


Figure 3.1 Confirmatory factor analysis of the five factors

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WF=work-family conflict

According to Figure 3.1, the five-factor model fit the best. To be specific, $CMIN / DF = 2.019 < 3$, $GFI = 0.925 > 0.9$, $AGFI = 0.903 > 0.9$, $CFI = 0.961 > 0.9$, $RMSEA = 0.050 < 0.07$. Therefore, the five-factor model was used for confirmatory factor analysis. The analysis results were shown in Table 3.4.

Table 3.4 Fit indexes of confirmatory factor analysis

Evaluation index	X ² /df	AGFI	GFI	RMSEA	NFI	IFI	CFI
Desired value	<3	>0.9	>0.9	<0.07	>0.9	>0.9	>0.9
5-factor model	2.019	0.903	0.925	0.05	0.961	0.961	0.934
4-factor model ^a	4.952	0.764	0.813	0.098	0.812	0.844	0.843
3-factor model ^b	7.458	0.627	0.698	0.126	0.711	0.74	0.738
2-factor model ^c	8.762	0.589	0.665	0.138	0.66	0.686	0.685
1-factor model ^d	13.34	0.44	0.544	0.174	0.482	0.502	0.499

Notes: a. emotional dissonance and occupational commitment are integrated to be one factor; b. emotional dissonance, turnover intention and occupational commitment are integrated to be one factor; c. emotional dissonance, turnover intention, customer injustice and occupational commitment are integrated to be one factor, d. all variables are integrated to be one factor.

According to the results of the confirmatory factor analysis, the convergent validity value AVE of each variable was greater than 0.5, indicating that the convergence validity test is qualified. The specific results were as follows. The CR value of customer injustice was 0.76 and the AVE value was 0.514. The CR value of emotional dissonance was 0.829 and the AVE value was 0.619. The CR value of turnover intention was 0.869 and the AVE value was 0.625. The CR value of occupational commitment was 0.882 and the AVE value was 0.601. The CR value of work-family conflict was 0.894 and the AVE value was 0.629.

3.4.4.2 Discriminant validity analysis

The criterion to determine discriminate validity is that the correlation coefficient between paired variables should be smaller than the square root of the average variance extracted (AVE) of the individual variables, which means that there is a significant discriminant validity between the variables. The discriminant validity of the variables in this study was calculated as Table 3.5.

Table 3.5 Calculation of discriminant validity between variables

Variables	CR	AVE	Variables				
			ED	TI	WFC	CI	OC
ED	0.829	0.619	0.787				
TI	0.869	0.625	0.444	0.791			
WFC	0.894	0.629	0.476	0.391	0.793		
CI	0.76	0.514	0.446	0.409	0.418	0.717	
OC	0.882	0.601	-0.301	-0.562	-0.35	-0.34	0.78

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

In the above table, CR of each variable was greater than 0.7, indicating that the scale has good reliability, while AVE was greater than 0.5, indicating that the scale has convergence validity. The values in the diagonal of the variable correlation coefficient were the square of AVE, and it was greater than the correlation coefficient between each variable and itself in the lower triangle, indicating that the data have discriminant validity.

3.5 Statistical analysis method

3.5.1 Descriptive analysis

Descriptive statistical analysis is to analyze the sample data obtained and group them according to the demographic characteristics of the food delivery riders to find out the distribution of the sample of the riders. Differences in demographic characteristics of food delivery riders include gender, age, educational level and so on.

3.5.2 Correlation analysis

Whether there is a correlation between variables and the degree of correlation is one of the bases for analysis. Common correlation analysis adopts Pearson coefficient. The closer the absolute value of Pearson coefficient is to 1, the stronger the correlation between variables will be.

3.5.3 Independent-sample T test and one-way ANOVA

The independent-sample T test is used to analyze the degree of variance under the influence of different marital status and gender among the food delivery riders. One-way ANOVA is used to analyze whether the variances of variables are significant at different levels of statistical characteristics.

3.5.4 SEM analysis

Structural equation modeling (SEM) is a multivariate statistical method that includes two parts. One is the measurement model of the variables, and the other is the structural model between the variables. The advantage of SEM is that it takes into account the measurement error of the variables, displays the variables in a multi-level way, and analyzes the interaction between multiple variables, which greatly improves the accuracy of the model prediction. The criteria of SEM fitting in this study are as follows (Naik, 2013; Schreiber et al., 2006; Wu, 2013): Chi-square (χ^2) / degree of freedom (df) < 3, root-mean-square error of approximation (RMSEA) < 0.07, standardized root mean square residual (SRMR) < 0.08, the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI) > 0.9, and the Bentler-Bonett normed fit index (NFI) are close to 1.

3.6 Common method bias

Since all the survey data used in this research came from the self-report of the respondents, there might occur problems such as common method bias. During the research, we tried our best to control common method bias from the survey procedures, such as one-on-one answering, and training and guidance for the respondents before the survey. After the data collection was completed, Harman's single-factor test was used to test the common method bias of the study. The specific process was as follows: all the variables of the study were placed in the factor analysis, and five factors were extracted without rotation. The explained variance of the first

factor was 17.8%, lower than the standard requirement of 40%. It can be concluded that there is no serious common method bias in this study.

Chapter 4: Results

4.1 Results

4.1.1 Descriptive

The demographic results of the gender, age, and marital status of the respondents were as follows. The majority of the respondents are male riders, reaching 375 (91.7%); the majority were young people, of which 205 (50.1%) were from 26 to 35 years old and 153 (37.4%) were under 25 years old; 210 (51.3%) were married; most needed to support more than two dependents in the family, 129 (31.5%) respondents needed to support two dependents and 122 (29.8%) needed to support three or more dependents; 185 (45.2%) respondents were local residents, 75 (18.3%) were migrants who had been living in the local area for five years or more, and the rest were migrants who had been living in the local area for less than five years; as for educational level, the majority graduated from high school and below, 199 (48.7%) respondents graduated from high school or technical secondary school, 108 (26.4%) respondents graduated from junior high school or below; most respondents took the job within one year, 149 (36.4%) no more than six months, 109 (26.7%) for 7 to 12 months; most respondents worked more than 40 hours per week, 153 people (37.4%) worked for 60 to 80 hours, 115 (28.1%) worked for 40 to 60 hours; their monthly income was mostly above 3,000 yuan, 198 (48.4%) earned 3,000 to 5000 yuan, 140 (34.2%) earned 5,000 to 7000 yuan; most respondents experienced job-hopping over the past three years, 144 (35.2%) changed the job for two times and 124 (30.3%) changed for one time. The specific analysis results were shown in Table 4.1.

Table 4.1 Descriptive analysis of demographics questionnaire (n= 409)

Demographics	Statistical Contents	Frequency	Percent
Gender	Female	34	8.3
	Male	375	91.7
Age	25 and below	153	37.4
	26-35	205	50.1
	36-45	44	10.8
	46 and above	7	1.7
Marital Status	Unmarried	186	45.5
	Married	210	51.3
	Other	13	3.2
Supported Family	0	88	21.5
Member	1 person	70	17.1
	2 persons	129	31.5
	3 persons and above	122	29.8
Migrant or native	Migrant with less than 1 year of local living	35	8.6
	Migrant with 1-2 years of living	51	12.5
	Migrant with 2-4 years of living	63	15.4
	Migrant with 5 and more years of living	75	18.3
	Natives	185	45.2
Educational Level	Junior high school and below	108	26.4
	Senior high school or technical secondary school	199	48.7
	Junior college	63	15.4
	University and above	39	9.5
Work experience in Food Delivery (Months)	6 months and below	149	36.4
	7-12 months	109	26.7
	13-24 months	108	26.4
	25-36 months	39	9.5
	37 months and above	4	1.0
Working hours per week (hours)	Below 20	35	8.6
	21-40	29	7.1
	40-60	115	28.1
	60-80	153	37.4
	Over 80	77	18.8
Monthly income (yuan)	Below 3000	32	7.8
	3000-5000	198	48.4

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	5000-7000	140	34.2
	7000-9000	31	7.6
	Over 9000	8	2.0
Job-hopping over	No job-hopping	49	12.0
the past three years	Once	124	30.3
	Twice	144	35.2
	3 times or above	92	22.5

The absolute value of skewness of each observable variable was less than 2 and the absolute value of kurtosis was less than 5, which met the requirements of normal distribution. Therefore, the subsequent model analysis can use the maximum likelihood estimation method.

4.1.2 Correlation

According to the Pearson correlation analysis results, the customer injustice mean value \pm Std was 2.46 ± 0.93 , emotional dissonance mean value \pm Std was 2.93 ± 1.22 , turnover intention mean value \pm Std was 2.67 ± 1.23 , occupational commitment mean value \pm Std was 4.18 ± 1.08 , and work-family conflict mean value \pm Std was 3.06 ± 1.23 . At a significance level of $p < 0.01$, customer injustice was positively related to emotional dissonance, turnover intention, and work-family conflict ($r = 0.362$, $r = 0.349$, and $r = 0.339$); customer injustice was negatively related to occupational commitment ($r = -0.291$); emotional dissonance was positively related to turnover intention and work-family conflict ($r = 0.384$ and $r = 0.403$); emotional dissonance was negatively related to occupational commitment ($r = -0.253$); turnover intention was negatively related to occupational commitment ($r = -0.479$); turnover intention was positively related to work-family conflict ($r = 0.336$); and occupational commitment was negatively related to work-family conflict ($r = -0.304$). The analysis results were shown in Table 4.2.

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Table 4.2 Mean, standard deviation and correlation coefficient of variables of courier sample data

	Mean	S.D	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Age	28.52	6.25	1													
2 Marital status	-	-	.567**	1												
3 Number of supported dependents	1.70	1.11	.440**	.485**	1											
4 Length of living in local place	10.76	8.48	.014	.023	-.041	1										
5 Educational level	-	-	-.157**	-.005	-.160**	-.067	1									
6 Length of service as a rider	11.90	9.09	.116*	.171**	.057	-.032	.107*	1								
7 Average working hours per week	63.30	22.37	-.024	.099*	.009	-.060	.202**	.259**	1							
8 Monthly income	5007	1462	.059	.146**	.104*	-.036	.097*	.201**	.289**	1						
9 Job-hopping over the past 3 years	1.68	.95	-.057	-.106*	-.100*	-.040	-.085	-.264**	-.095	-.072	1					
10 Customer injustice	2.46	.93	.079	.076	.059	.062	-.010	.110*	-.043	.159**	-.017	(.755)				
11 Emotional dissonance	2.93	1.22	.064	-.031	.082	.005	-.138**	-.045	-.199**	-.015	.119*	.362**	(.826)			
12 Turnover intention	2.67	1.23	.064	-.003	.083	.017	-.126*	-.077	-.181**	-.010	.111*	.349**	.384**	(.869)		
13 Occupational commitment	4.18	1.08	-.145**	-.073	-.076	-.019	.122*	.042	.281**	.030	-.048	-.291**	-.253**	-.479**	(.881)	
14 Work-family conflict	3.06	1.23	.284**	.110*	.182**	.037	-.103*	-.079	-.206**	.016	.103*	.339**	.403**	.336**	-.304**	(.891)

Note: ** $p < 0.01$, * $p < 0.05$

4.1.3 Independent-sample T test and one-way ANOVA

The purpose of using demographic analysis was to gain a deeper understanding of whether the mean values of the variables differ according to different backgrounds of food delivery riders. From the samples of comparable demographic characteristics, the gender, marital status, number of supported dependents, length of service in the local area, educational background, and the number of job changes were selected for independent-sample T test and one-way analysis of variance (ANOVA). The homogeneity of variance test adopted the comparison method of the least significant difference (LSD).

4.1.3.1 Independent-sample T test

In terms of gender, Levene's tests of customer injustice, emotional dissonance, turnover intention, occupational commitment, and work-family conflict passed ($p > 0.05$), indicating that customer injustice, emotional dissonance, turnover intention, occupational commitment, and work-family conflict pass the homogeneity of variance test, and the independent-sample T test can be used to analyze the performance of variables in gender. In terms of marital status, Levene's homogeneity of variance test of customer injustice, emotional dissonance, occupational commitment, and work-family conflict passed ($p > 0.05$), indicating that customer injustice, emotional dissonance, occupational commitment, and work-family conflict pass the homogeneity of variance test, and the independent-sample T test can be used to analyze the performance of variables in marital status.

Turnover intention passed Levene's test of homogeneity of variance in terms of gender ($F=1.359, p > 0.05$), which is suitable for the variance test. However, turnover intention failed to pass Levene's test of homogeneity of variance in terms of marital status ($F=4.254, p < 0.05$), that is, the variance was not homogeneous and was not suitable for variance test.

(1) Variance analysis of variables in terms of gender

For male and female food delivery riders, there was no significant variance between the research variables ($p > 0.05$).

(2) Variance analysis of variables in terms of marital status

There were three types of marital status in this survey: unmarried, married, and others (such as divorced). However, the sample size in others (such as divorced) was too small (N=13), so only the variance of between the unmarried and married samples was compared. For married and unmarried food delivery riders, there was no significant difference in customer injustice, occupational commitment, and work-family conflict ($p > 0.05$).

There was a significant difference between groups in terms of emotional dissonance ($p < 0.05$). The emotional dissonance of unmarried riders (mean = 3.034, SD = 0.089) was higher than that of married ones (mean = 2.789, SD = 0.081).

The results of Independent-sample T test are shown in Table 4.3.

Table 4.3 The results of Independent-sample T test

Variable	Demographic factors	Homogeneity of Variance Test		t-test		Mean	Comparison of mean difference Mean difference
		F	Sig.	t	Sig.		
CU	Male	0.414	0.52	-1.103	0.271	2.444	-0.184
	Female					2.628	-0.184
	Married	0.002	0.963	1.098	0.273	2.497	0.103
	Unmarried					2.394	0.103
ED	Male	3.545	0.06	0.777	0.438	2.945	0.17
	Female					2.775	0.17
	Married	0.279	0.598	-2.039	0.042	2.789	-0.245
	Unmarried					3.034	-0.245
TI	Male	1.359	0.244	0.574	0.566	2.685	0.127
	Female					2.559	0.127
OC	Male	1.352	0.246	-1.204	0.229	4.162	-0.232
	Female					4.394	-0.232
	Married	0.075	0.784	-0.665	0.506	4.167	-0.071
	Unmarried					4.238	-0.071
WFC	Male	1.161	0.282	-0.268	0.789	3.052	-0.059
	Female					3.112	-0.059
	Married	2.894	0.09	1.026	0.305	3.085	0.125
	Unmarried					2.96	0.125

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

4.1.3.2 One-way ANOVA of research variables

4.1.3.2.1 Homogeneity of variance test of research variables

As for supported dependents, Levene's test results showed that p values of customer injustice, emotional dissonance, turnover intention, occupational commitment, work-family conflict were greater than 0.05. As for length of living in local place, Levene's test results showed that p values of customer injustice, emotional dissonance, turnover intention, occupational commitment, and work-family conflict were greater than 0.05. As for educational background, p values of customer injustice, emotional dissonance, occupational commitment, and work-family conflict were greater than 0.05. As for the number of turnovers in the past three years, p values of customer unfairness, emotional dissonance, turnover intention, occupational commitment, and work-family conflict were greater than 0.05. The above analyses passed the homogeneity of variance test, and one-way ANOVA can be performed. However, the homogeneity of variance test of turnover intention did not pass ($p < 0.05$), which indicates that it is not suitable for one-way ANOVA.

4.1.3.2.2 Results of one-way ANOVA

In terms of the supported dependents, there was no significant difference in the mean values of customer injustice, emotional dissonance, turnover intention, and occupational commitment ($p > 0.05$). In terms of length of living in local place, there was no significant difference in the mean values of customer injustice, emotional dissonance, turnover intention, and occupational commitment ($p > 0.05$). In terms of educational background, there was no significant difference in the mean values of customer injustice, occupational commitment, and work-family conflict ($p > 0.05$). In terms of the number of turnovers over the past three years, there was no significant difference in the mean values of customer injustice, emotional dissonance, turnover intention, occupational commitment, and work-family conflict ($p > 0.05$). The specific analysis results were shown in Table 4.4.

Table 4.4 One-way ANOVA of research variables in demographics

		Sum of Squares	Mean Square	F	Sig.	Demographics
CI	Between Groups	2.97	0.99	1.143	0.331	Supported dependent
	Within Groups	350.59	0.866			
	Total	353.56				
ED	Between Groups	7.81	2.604	1.749	0.156	
	Within Groups	603	1.489			
	Total	610.81				
TI	Between Groups	9.34	3.112	2.073	0.103	
	Within Groups	608.04	1.501			
	Total	617.38				
OC	Between Groups	3.21	1.07	0.923	0.43	
	Within Groups	469.29	1.159			
	Total	472.5				
WFC	Between Groups	24.25	8.082	5.546	0.001**	
	Within Groups	590.23	1.457			
	Total	614.48				
CI	Between Groups	5.76	1.44	1.673	0.155	Length of living in local place
	Within Groups	347.8	0.861			
	Total	353.56				
ED	Between Groups	10.4	2.599	1.749	0.138	
	Within Groups	600.42	1.486			
	Total	610.81				
TI	Between Groups	7.89	1.973	1.308	0.266	
	Within Groups					

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	Within Groups	609.48	1.509			
	Total	617.38				
OC	Between Groups	10.67	2.669	2.334	0.055	
	Within Groups	461.82	1.143			
	Total	472.5				
WFC	Between Groups	17.45	4.362	2.952	0.020*	
	Within Groups	597.03	1.478			
	Total	614.48				
CI	Between Groups	2.49	0.829	0.957	0.413	Educational background
	Within Groups	351.07	0.867			
	Total	353.56				
ED	Between Groups	16.64	5.548	3.782	0.011*	
	Within Groups	594.17	1.467			
	Total	610.81				
OC	Between Groups	8.08	2.695	2.35	0.072	
	Within Groups	464.41	1.147			
	Total	472.5				
WFC	Between Groups	8.76	2.92	1.952	0.121	
	Within Groups	605.72	1.496			
	Total	614.48				
CI	Between Groups	0.11	0.035	0.04	0.989	Number of turnovers over the past three years
	Within Groups	353.45	0.873			
	Total	353.56				
ED	Between Groups	9.03	3.01	2.025	0.11	

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	Within Groups	601.79	1.486		
	Total	610.81			
TI	Between Groups	10.53	3.511	2.343	0.073
	Within Groups	606.84	1.498		
	Total	617.38			
OC	Between Groups	4.34	1.445	1.25	0.291
	Within Groups	468.16	1.156		
	Total	472.5			
WFC	Between Groups	9.34	3.114	2.084	0.102
	Within Groups	605.14	1.494		
	Total	614.48			

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

There were three significant differences in the above table. Therefore, it is necessary to further compare and analyze the performance of variables within the demographic groups. The analysis results using LSD method were as follows.

1) In groups with different numbers of supported dependents ($F = 5.546$, $p < 0.05$): the work-family conflict of those with three dependents (mean = 3.41, SD = 0.117) was significantly higher than those with two dependents (mean = 3, SD = 0.11), those with one dependent (mean = 2.843, SD = 0.138), and those with no dependent (mean = 2.814, SD = 0.111).

2) In groups with different lengths of living in local place ($F = 2.952$, $p < 0.05$): the work-family conflict of those migrants living in the local place for three years (mean = 2.64, SD = 0.14) was lower than those living in the local place for five years (mean = 3.35, SD = 0.14) and those who are local natives (mean = 3.09, SD = 0.06).

3) In groups with different educational background ($F = 3.782, p < 0.05$): the emotional dissonance of those who graduated from junior high schools and below (mean = 3.23, SD = 0.13) was higher than those graduating from senior high schools or secondary technical schools (mean = 2.84, SD = 0.08) and those graduating from colleges and above (mean = 2.57, SD = 0.19).

4.1.3.2.3 Results summary of one-way ANOVA

According to the above analysis, there were significant differences in the work-family conflict of food delivery riders with different numbers of supported dependents (three dependents compared with others), there were significant differences in the work-family conflict of food delivery riders of migrants with different lengths of living in local place (having lived in local place for 3-5 years; those for 3 years and those locals), and there were significant differences in the emotional dissonance of food delivery riders with different educational backgrounds (junior high school and below and high school or technical secondary school, junior high school and below and university and above). There was no significant difference between the variables in terms of turnovers over the past three years.

4.1.3.3 Summary of independent-sample T test and one-way ANOVA

Based on the results of independent-sample T test and one-way analysis of variance for each variable, it was found that there were significant differences in emotional dissonance of riders with different marital status, work-family conflict of riders with different numbers of supported dependents, work-family conflict of riders with different lengths of living in local place, and emotional dissonance of riders with different educational background. There were no significant differences in the performance of variables under other demographic characteristics. The specific analysis results were shown in Table 4.5.

Table 4.5 Summary of Independent-sample T test and one-way ANOVA of variables

Gender	Marital Status	Number of Supported Dependents	Length of Living in Local Place	Educational Background	Number of Turnovers in the Past 3 Years
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CI	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
ED	n.s.	$p < 0.05$	n.s.	n.s.	$F = 3.782, p < 0.05$	n.s.
TI	n.s.	--	n.s.	n.s.	--	n.s.
OC	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
WFC	n.s.	n.s.	$F = 5.546, p < 0.05$	$F = 2.952, p < 0.05$	n.s.	n.s.

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict; n.s.=not significant.

4.2 Hypotheses testing

4.2.1 Model Testing

AMOS24.0 was used to build the structural equation model, which forms the fundamental model of this research. Four representative models were established for comparative analysis by means of structural equations.

The model was built with the analytical thinking of step-by-step progressive comparison. Model 1 was an analysis of the hypotheses about the influence relationships between variables established in Chapter 2 and it covered the influence relationships between all the variables. In order to verify other possible relationships between the variables, Model 2 and Model 3 were designed as the alternative models for testing. Model 2 removed the direct influence of customer injustice on turnover intention based on Model 1. Model 3 removed the direct influence of customer injustice on turnover intention and emotional dissonance on occupational commitment based on Model 1. Model 4 was the inverse model of Model 1, that is, the influence relationship between the variables was inverse, and customer injustice was set as the dependent variable of the model. The analysis results of the four models were as follows.

(1) Model 1: The paths between the variables were: customer injustice affected emotional dissonance; customer injustice affected turnover intention; customer injustice affected occupational commitment; emotional dissonance affected occupational commitment; emotional dissonance affected turnover intention; and occupational commitment affected turnover intention. The fit indexes were: CMIN/DF = 2.566, RMSEA = 0.062, SRMR = 0.0419, GFI =

0.93, AGFI = 0.906, NFI = 0.927, IFI = 0.954, CFI = 0.954. From the perspective of fit indexes, all of them met the standard requirements, so the fitting degree of the overall model was very good. As can be seen from Table 4.6, the six path coefficients had statistical significance ($p < 0.05$). The specific analysis results were shown in Figure 4.1.

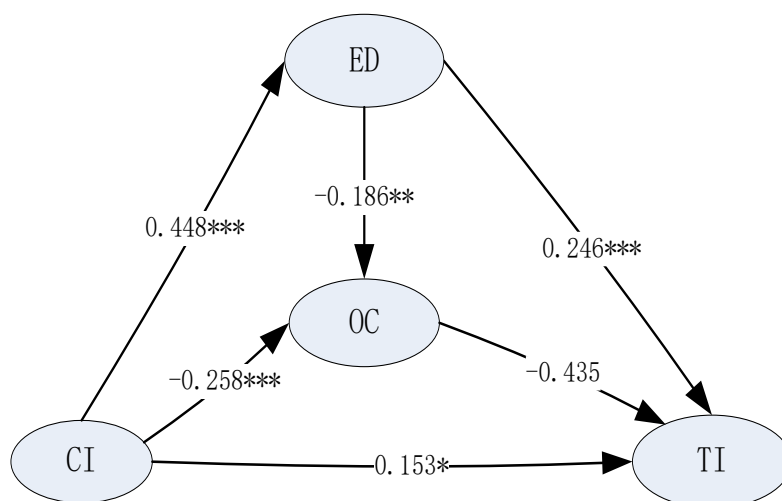


Figure 4.1 Model 1

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

(2) Model 2: The paths between the variables were: customer injustice affected emotional dissonance, customer injustice affected occupational commitment, emotional dissonance affected occupational commitment, emotional dissonance affected turnover intention, and occupational commitment affected turnover intention. The fit indexes were: CMIN/DF = 2.608, RMSEA = 0.063, SRMR = 0.0470, GFI = 0.931, AGFI = 0.905, NFI = 0.925, IFI = 0.953, CFI = 0.952. From the perspective of fit indexes, all of them met the standard requirements, so the fitting degree of the overall model was very good. The five path coefficients all had statistical significance ($p < 0.05$). The specific analysis results were shown in Figure 4.2.

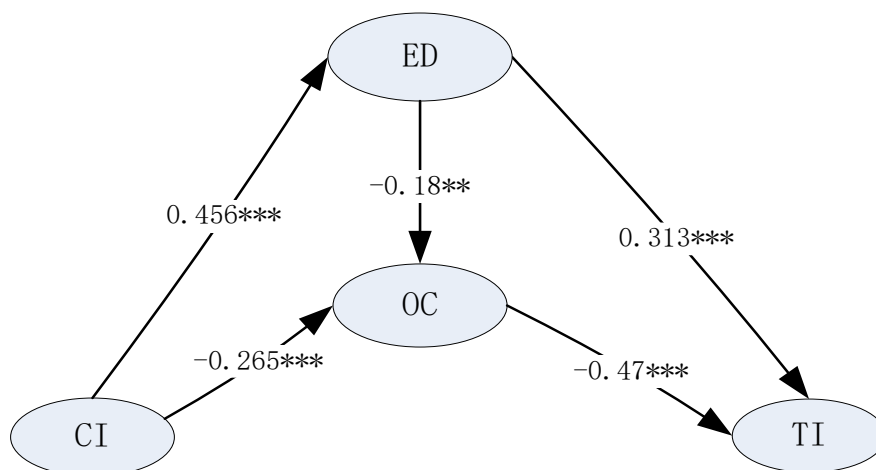


Figure 4.2 Model 2

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

(3) Model 3: The paths between the variables were: customer injustice affected emotional dissonance; customer injustice affected occupational commitment; emotional dissonance affected turnover intention; and occupational commitment affected turnover intention. The fit indexes were: CMIN/DF = 2.668, RMSEA = 0.064, SRMR = 0.053, GFI = 0.928, AGFI=0.901, NFI=0.923, IFI=0.950, CFI=0.950. From the perspective of fit indexes, all of them met the standard requirements, so the fitting degree of the overall model was very good. The four path coefficients all had statistical significance ($p < 0.05$). The specific analysis results were shown in Figure 4.3.

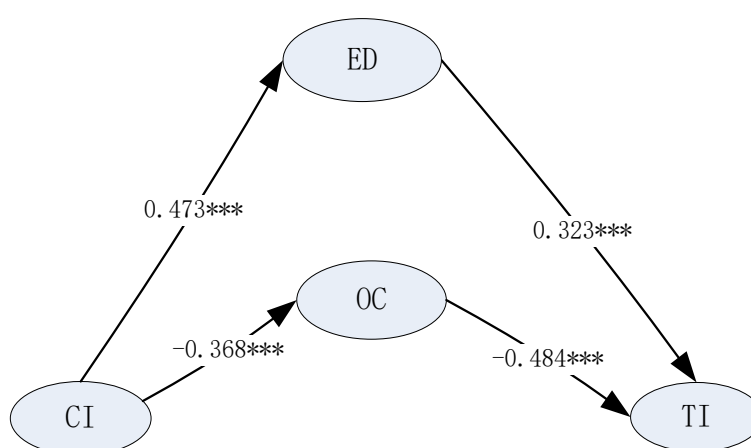


Figure 4.3 Model 3

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

(4) Model 4: The paths between the variables were: emotional dissonance affected customer injustice; occupational commitment affected emotional dissonance; occupational commitment affected customer injustice; turnover intention affected occupational commitment; turnover intention affected emotional dissonance; and turnover intention affected customer injustice. The fit indexes were: CMIN/DF = 4.790, RMSEA = 0.096, SRMR = 0.0672, GFI = 0.874, AGFI = 0.826, NFI = 0.863, IFI = 0.888, and CFI = 0.888. From the perspective of fit indexes, apart from SRMR, all the others failed to meet the standard requirements, so the fitting degree of the overall model was very poor. The path coefficients of emotional dissonance affecting customer injustice, turnover intention affecting occupational commitment, turnover intention affecting emotional dissonance and turnover intention affecting customer injustice had statistical significance ($p < 0.05$), while the path coefficients of occupational commitment \rightarrow emotional dissonance and occupational commitment \rightarrow customer injustice had no statistical significance ($p > 0.05$, $p > 0.05$). The specific analysis results were shown in Figure 4.4.

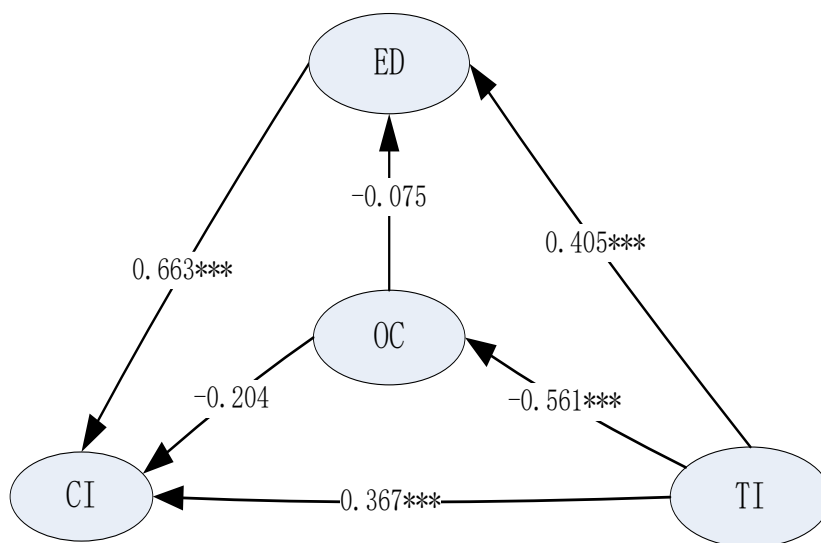


Figure 4.4 Model 4

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

Table 4.6 below illustrates the specific indexes and significance level of Model 1-4.

Table 4.6 Analysis results of model 1-4

	SEM path	Standardized path coefficient	Non-standardized path coefficient	S.E.	C.R.	<i>p</i>
Model 1	ED<---CI	0.448	0.584	0.084	6.973	***
	TI<---CI	0.153	0.226	0.09	2.522	*
	OC<---CI	-0.258	-0.323	0.084	-3.84	***
	OC<---ED	-0.186	-0.178	0.062	-2.9	**
	TI<---ED	0.246	0.278	0.066	4.212	***
	TI<---OC	-0.435	-0.511	0.063	-8.06	***
Model 2	ED<---CI	0.456	0.598	0.084	7.092	***
	OC<---ED	-0.18	-0.173	0.062	-2.8	**
	OC<---CI	-0.265	-0.333	0.085	-3.93	***
	TI<---ED	0.313	0.353	0.061	5.797	***
	TI<---OC	-0.47	-0.553	0.063	-8.83	***
Model 3	ED<---CI	0.473	0.621	0.084	7.354	***
	OC<---CI	-0.368	-0.463	0.074	-6.23	***
	TI<---ED	0.323	0.359	0.059	6.094	***
	TI<---OC	-0.484	-0.561	0.061	-9.25	***
Model 4	OC <--- TI	-0.561	-0.479	0.047	-10.2	***
	ED<---TI	0.405	0.361	0.064	5.593	***
	ED<---OC	-0.075	-0.078	0.07	-1.12	0.261
	CI<---ED	0.663	0.313	0.043	7.198	***
	CI<---OC	-0.204	-0.1	0.043	-2.35	0.019
	CI<---TI	0.367	0.154	0.041	3.754	***

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention;
WFC=work-family conflict

4.2.2 Model comparison

4.2.2.1. Model variance analysis

Following the analysis process by Mao (2019), this study adopted a multi-group comparison method. Models 2, 3, and 4 were compared with Model 1 and were analyzed in groups. The results of the comparative analysis were shown in Table 4.7. The results indicated that there were significant differences between Models 2, 3, 4 and Model 1 ($p < 0.05$, $p < 0.001$, $p < 0.001$).

Table 4.7 Comparative analysis of model 1 to model 4

Model	χ^2	df	χ^2 / df	CFI	TLI	RMSEA	AIC	$\Delta\chi^2$	Δdf	p
Model 1	220.65	86	2.566	0.954	0.943	0.062	288	--	--	--
Model 2	226.9	87	2.608	0.952	0.942	0.063	292	6.25	1	0.012*
Model 3	234.75	88	2.668	0.95	0.94	0.064	298	14.1	2	0.0008***
Model 4	416.69	87	4.79	0.888	0.864	0.096	482	196.04	1	0.0000***

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

4.2.2.2 Selection of optimal model

According to the analysis of the above four models, CMIN/df of Model 1 was less than 3 and was the smallest among the four models. GFI, AGFI, NFI, IFI, CFI were greater than 0.9 and were the largest among the four models. RMSEA was less than 0.07, SRMR was less than 0.08, AIC was 288 and was the smallest among the four models. It indicated that the indexes of Model 1 met the standards and were the best among the four models. Model 1 was better than Model 2, 3 and 4, and Model 4 had the worst fitting index.

Model 1 started with the customer injustice, and the turnover intention of the food delivery riders was adopted as the outcome variable. Emotional dissonance and occupational commitment also played their corresponding roles. The influencing relations between the variables were in line with the theoretical logic of “event-affection-attitude-behavior” of the Affective Event Theory. According to the comparative analysis of the four models, and in accordance with the criteria of Hayes (Hayes, 2013) and Kunze, Jong, and Bruch (2016), Model 1 was selected as the final research model, and the analysis was carried out on this basis.

The p -values of the path coefficients between the latent variables in Model 1 were all less than 0.05, indicating that the influence paths between the latent variables in the model are significant. Customer injustice in the work of food delivery riders can significantly affect their emotional dissonance. When the customer injustice increased by one unit, the emotional dissonance of the food delivery riders would increase by 0.45 unit, and their occupational commitment would decrease by 0.26 unit. When the customer emotional dissonance increased by one unit, the turnover intention of riders would increase by 0.25 unit, and the occupational commitment would decrease by 0.19 units. An increase of occupational commitment by one unit would lead to a decrease of turnover intention by 0.44 unit.

According to the model analysis results, the following hypotheses are supported.

Hypothesis 1: Customer injustice is positively related to the emotional dissonance of food delivery riders.

Hypothesis 2: Customer injustice is negatively related to the occupational commitment of food delivery riders.

Hypothesis 3: Customer injustice is positively related to the turnover intention of food delivery riders.

Hypothesis 4: Emotional dissonance is negatively related to the occupational commitment of food delivery riders.

Hypothesis 5: Emotional dissonance is positively related to the turnover intention of food delivery riders.

Hypothesis 6: Occupational commitment is negatively related to the turnover intention of food delivery riders.

4.3 Mediation effect analysis

4.3.1 Multiple mediations analysis

The mediation path in the model was as follows. The effect of customer injustice on turnover intention can be influenced through emotional dissonance and occupational commitment, and the effect of customer injustice on the occupational commitment of food delivery riders can be influenced by emotional dissonance. The study adopted 5,000 Bootstrap and 95% confidence interval analysis. The specific analysis results were shown in Table 4.8.

Table 4.8 Analysis results of the standardized mediation effect of the model

		Bias-Corrected 95% CI		Standardized Directs	<i>p</i>	Judgment
		Lower	Upper			
Independent variable: CI Mediator: ED, OC Outcome variable: TI	Total Effect	0.309	0.513	0.412	0.002**	Partial Mediation
	Direct Effect	0.027	0.276	0.153	0.007**	
	Indirect Effect	0.188	0.338	0.258	0.002**	
Independent variable: CI Mediator: ED Outcome variable: OC	Total Effect	-0.447	-	-0.341	0.003**	Partial Mediation
	Direct Effect	-0.39	-0.11	-0.258	0.003**	
	Indirect Effect	-0.156	-	-0.083	0.005**	
Independent variable: ED Mediator: OC Outcome variable: TI	Total Effect	0.189	0.457	0.326	0.018*	Partial Mediation
	Direct Effect	0.114	0.384	0.246	0.002**	
	Indirect Effect	0.025	0.153	0.081	0.004**	

Note: 5000 bootstrap samples; ** $p < 0.01$

CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

The direct effect between customer injustice and turnover intention was 0.153 ($p < 0.01$), the CI at 95% confidence interval was 0.027 and 0.276; the indirect effect of the mediation of

occupational commitment and emotional dissonance in customer injustice and turnover intention was 0.258 ($p < 0.01$); and the CI at 95% confidence interval was 0.188 and 0.338. The influencing effect was significant. Therefore, occupational commitment and emotional dissonance did play a partial mediation role in the relationship between customer injustice and turnover intention. Because there are three possible paths for the mediation effect of occupational commitment and emotional dissonance, 4.3.2 will analyze the three possible paths to test whether the impact of customer injustice on the turnover intention of food delivery riders is achieved through multiple mediation paths.

The direct effect between customer injustice and occupational commitment was -0.258 ($p < 0.01$), and the CI at 95% confidence interval was -0.39 and -0.11; the indirect effect of the mediation of emotional dissonance in customer injustice and occupational commitment was -0.083 ($p < 0.01$), and the CI at 95% confidence interval was -0.156 and -0.026. The influencing effect was significant. Therefore, emotional dissonance played a partial mediation role in the relationship between customer injustice and the occupational commitment of food delivery riders, and Hypothesis 7 was supported.

The direct effect between emotional dissonance and turnover intention was 0.246 ($p < 0.01$), and the CI at 95% confidence interval was 0.114 and 0.384; the indirect effect of the mediation of occupational commitment in emotional dissonance and turnover intention was 0.081 ($p < 0.01$), and the CI at 95% confidence interval was 0.025 and 0.15. The influencing effect was significant. Therefore, occupational commitment played a partial mediation role in the relationship between emotional dissonance and the turnover intention of food delivery riders, and Hypothesis 9 was supported.

4.3.2 Analysis of multiple mediation and sequential mediation

4.3.2.1 Analysis of multiple mediations

From the above analysis, it can be concluded that a three-fold mediation effect was formed in the indirect influence of customer injustice on turnover intention, that is, 1) customer injustice affects the turnover intention of food delivery riders through emotional dissonance; 2) customer

injustice affects the turnover intention of food delivery riders through occupational commitment;

3) customer injustice affects the turnover intention of food delivery riders through emotional dissonance and sequentially occupational commitment.

Different mediation effect values had different impacts on the pertinence of application and management and were an important basis for analyzing the work status and work mood of food delivery riders. Therefore, it was necessary to analyze specific mediation effects based on basic analysis. This study adopted the “Define new estimands” function of AMOS for analysis.

The indirect effect of customer injustice affecting turnover intention through occupational commitment was defined as ind1, the indirect effect of customer injustice affecting turnover intention through emotional dissonance was defined as ind2, the indirect effect of customer injustice affecting turnover intention sequentially through emotional dissonance and occupational commitment was defined as ind3, and the grammar was as follows.

$$\text{ind1} = e.\text{StandardizedDirectEffect}(\text{OC}, \text{CI}) * e.\text{StandardizedDirectEffect}(\text{TI}, \text{OC})$$

$$\text{ind2} = e.\text{StandardizedDirectEffect}(\text{ED}, \text{CI}) * e.\text{StandardizedDirectEffect}(\text{TI}, \text{ED})$$

$$\text{ind3} = e.\text{StandardizedDirectEffect}(\text{ED}, \text{CI}) * e.\text{StandardizedDirectEffect}(\text{OC}, \text{ED}) * e.\text{StandardizedDirectEffect}(\text{TI}, \text{OC})$$

The computational results are shown in Table 4.9.

Table 4.9 User-defined estimands

Self-defined	Mediating path	Mediating effect	Lower limit (95%)	Upper limit (95%)	<i>p</i>	% of total effect
ind1	CU→OC→TI	0.112	0.053	0.184	0.002**	43.41%
ind2	CU→ED→TI	0.110	0.054	0.193	0.002**	42.64%
ind3	CU→ED→OC C→TI	0.036	0.012	0.074	0.003**	13.95%
Total indirect effect	ind1+ ind2+ ind3	0.258	0.188	0.338	0.002**	100%

Note: 5000 bootstrap samples; ** $p < 0.01$

CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

Table 4.9 confirmed that there was a three-fold mediation effect. In the process of customer injustice affecting turnover intention, the mediation effects of customer injustice affecting turnover intention through emotional dissonance and customer injustice affecting turnover intention through occupational commitment were relatively significant, accounting for 43.41% and 42.64% of the total mediation effect respectively. The analysis confirmed the existence of multiple mediation effects. Hypothesis 8 and Hypothesis 10 were supported.

4.3.2.2 Analysis of sequential mediation effect

Ind3 in Table 4.9 revealed the analysis results of the mediation effect of customer injustice sequentially affecting turnover intention through emotional dissonance and occupational commitment. The effect value was 0.036, and the upper and lower limits of the confidence interval of the test did not include 0 ([0.188,0.338], $p < 0.05$), indicating that customer injustice affects turnover intention sequentially through emotional dissonance and occupational commitment, namely, there was a sequential mediation effect in the impact of customer injustice on turnover intention through emotional dissonance and occupational commitment, and Hypothesis 11 was supported.

4.4 Moderation effect analysis

4.4.1 Data processing

To reduce the issue of multicollinearity between the moderators and the independent variables, the study first centralized the data of independent variable, dependent variable and moderator variable, and the related operations were performed in SPSS 19.0. Process 3.4 was used to carry out the model moderation effect analysis. The moderation model is shown in Figure 4.5.

To test whether the moderating effect is established, this study used the software of Process to analyze the moderating mediation effect by Lian et al. (2018) and produced a simple slope diagram. This study used the Index and paired comparison by Hayes (2015) and Evans et al.

(2019) . The moderating mediation effect table with confidence interval draws on the research of Sun, Pan, and Chow (2014), Chen and Wang (2015).

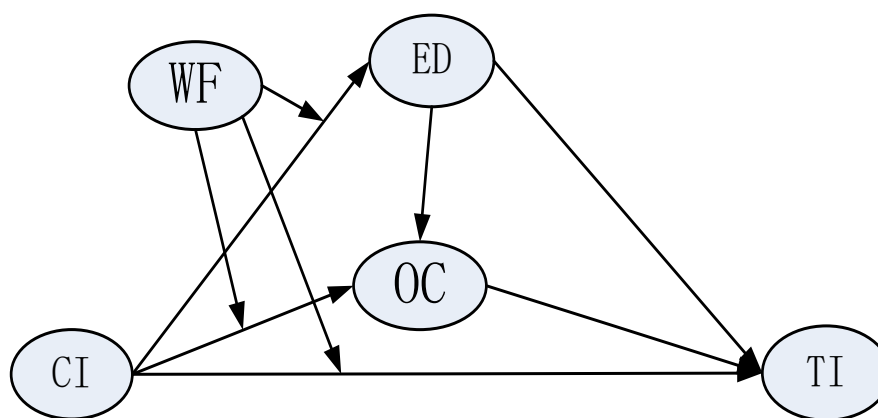


Figure 4.5 Moderated mediation model

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

4.4.2 Work-family conflict moderating the relationship between customer injustice and the emotional dissonance of food delivery riders

Emotional dissonance was set as the dependent variable, customer injustice was set as the independent variable, and work-family conflict was set as the moderation variable. The computational results after they were processed were shown in Table 4.10.

Table 4.10 Analysis results of work-family conflict moderating the influence of customer injustice on emotional dissonance

		coeff	se	t	p	LLCI	ULCI
	constant	2.9483	0.0564	52.3055	0	2.8375	3.0591
Moderating CI→ED	CI	0.3432	0.0617	5.5617	0	0.2219	0.4645
	WFC	0.3146	0.0465	6.7723	0	0.2233	0.4059
	CI*WFC	-0.0455	0.0455	-0.9992	0.3183	-0.135	0.044

Note: CI=customer injustice, WFC=work-family conflict, ED=emotional dissonance

It can be seen from Table 4.10 that the significance level (p) of the moderating interaction item customer injustice*work-family conflict was greater 0.05, indicating that work-family

conflict did not moderate customer injustice and emotional dissonance. Hypothesis 12 was not supported.

4.4.3 Work-family conflict moderating the relationship between customer injustice and the turnover intention of food delivery riders through occupational commitment

4.4.3.1 Moderation effect analysis

With turnover intention as the dependent variable, customer injustice as the independent variable, occupational commitment as the mediation variable, and work-family conflict as the moderation variable, the results of the Process operation were showed in Table 4.11.

Table 4.11 Analysis results of moderated mediation effect model

		coeff	se	t	<i>p</i>	LLCI	ULCI
	constant	-0.0467	0.0518	-0.902	0.3676	-0.1486	0.0551
Moderating CI→OC	CI	-0.2666	0.0567	-4.7001	0	-0.3781	-0.1551
	WFC	-0.2005	0.0427	-4.6957	0	-0.2845	-0.1166
	CI*WFC	0.1211	0.0418	2.894	0.004	0.0388	0.2034

Note: CI=customer injustice; ED=emotional dissonance; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

According to Table 4.11, the significance level ($p < 0.05$) of the moderation interaction term customer injustice*work-family conflict indicated that work-family conflict played a moderating role in the relationship between customer injustice and the occupational commitment of food delivery riders, and Hypothesis 13 was supported.

The simple slope of the moderation effect of work-family conflict in the relationship between customer injustice and the occupational commitment of food delivery riders was shown in Table 4.12 and Figure 4.6.

Table 4.12 Simple slope data of moderation effect of work-family conflict in the relationship between customer injustice and occupational commitment

Customer injustice	Work-family conflict	Value
M-1SD	M-1SD	0.5859

M-1SD	M+1SD	-0.183
M+1SD	M-1SD	-0.1872
M+1SD	M+1SD	-0.4027

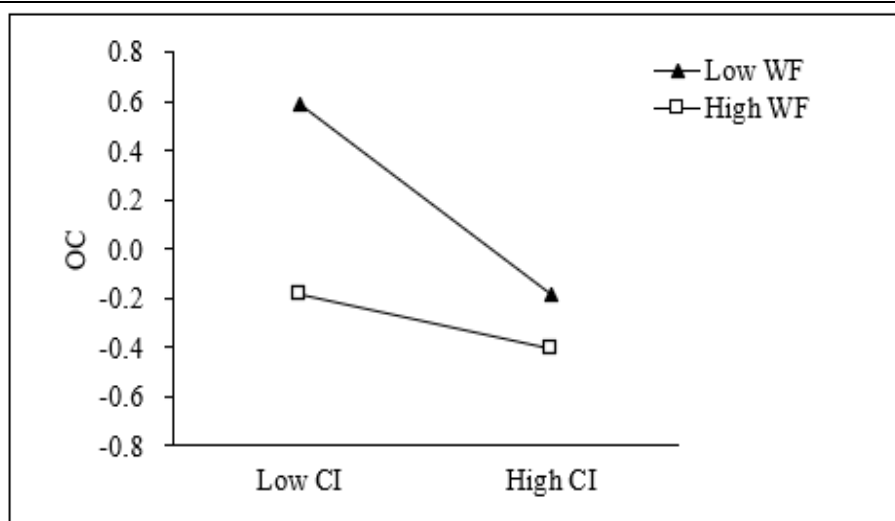


Figure 4.6 Moderation effect of work-family conflict in the relationship between customer injustice and occupational commitment

Note: CI=customer injustice; OC=occupational commitment; WFC=work-family conflict

4.4.3.2 Moderated mediation model analysis

Work-family conflict moderated the relationship between customer injustice and the occupational commitment of food delivery riders and also affected the mediation effect of customer injustice on the turnover intention of food delivery riders through occupational commitment, which was consistent with Model 7. The analysis results of moderated mediation effect were shown in Table 4.13.

Table 4.13 Analysis results of work-family conflict moderation in the relationship between customer injustice and occupational commitment

Work-family conflict	Effect	BootSE	BootLLCI	BootULCI
M-1SD (-1.2272)	0.1955	0.042	0.1171	0.2808
M	0.1255	0.0295	0.0706	0.1862
M+1SD (1.2272)	0.0556	0.0429	-0.0264	0.1427

Moderated mediation model judgment:

(1) Differences in the influence on the mediation effect: as can be seen from Table 4.13, when work-family conflict moderated the mediation of customer injustice in the relationship between occupational commitment and turnover intention, the interval of low score group did not contain 0, while the interval of high score group contained 0. There were obvious differences, indicating that there were differences in the mediation effect of customer injustice affecting turnover intention through occupational commitment under different moderation effects.

(2) Index judgment: the index value of the mediation variable work-family conflict in the moderated mediation model was -0.057, BootSE was 0.0253, BootLLCI and BootULCI were -0.1051 and -0.006, and the confidence interval did not contain 0, indicating that the Index was significant.

(3) Paired comparison: the value of high score group (+1SD) minus low score group (-1SD) was -0.14, BootSE was 0.0606, BootLLCI and BootULCI were -0.2581 and -0.0188. The confidence interval after paired subtraction did not contain 0, indicating that the effect of paired comparison was significant.

Through the above three steps, it was concluded that the moderation effect and the mediation effect were both significant. The established moderated mediation model was validated, and Hypothesis 13 was supported. The effect of the moderated mediation model was shown in Figure 4.7.

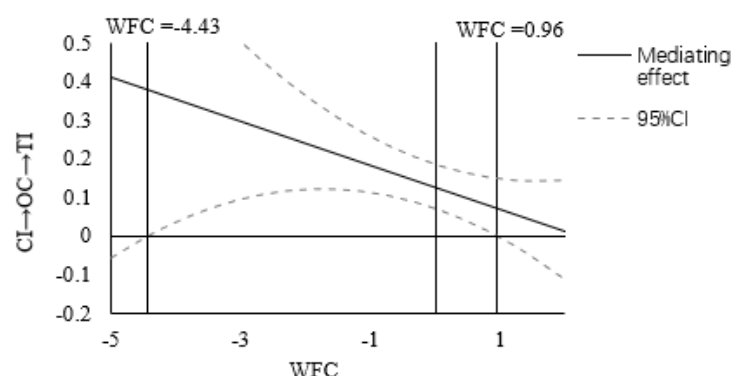


Figure 4.7 Mediation effect of work-family conflict moderating the relationship between customer injustice, occupational commitment, and turnover intention

Note: CI=customer injustice; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

It can be seen from Figure 4.7 that when the effect size of the moderation variable work-family conflict was between the critical values of -4.43 and 0.96, the mediation effect of customer injustice affecting turnover intention through occupational commitment was significant ($p < 0.05$), and when the effect size was beyond the critical values, the mediation effect was not significant.

4.4.4 Work-family conflict moderating relationship between customer injustice and turnover intention

With turnover intention as the dependent variable, customer injustice as the independent variable, occupational commitment as the mediation variable, and work-family conflict as the moderation variable, the results of the Process operation were shown in Table 4.14.

Table 4.14 Analysis results of work-family conflict moderating customer injustice and turnover intention

		coeff	se	t	<i>p</i>	LLCI	ULCI
	constant	-0.0179	0.0539	-0.332	0.7401	-0.1238	0.088
Moderating CI→TI	CI	0.2357	0.0605	3.8963	0.0001	0.1168	0.3547
	OC	-0.4379	0.0516	-8.4848	0	-0.5394	-0.3365
	WFC	0.1584	0.0455	3.4769	0.0006	0.0688	0.2479
	CI*WFC	0.0463	0.0439	1.0553	0.2919	-0.04	0.1327

Note: CI=customer injustice; OC=occupational commitment; TI=turnover intention; WFC=work-family conflict

In the moderation of customer injustice and turnover intention, the significance level (p) of the moderation interaction items customer injustice*work-family conflict was greater than 0.05, indicating that work-family conflict did not moderate customer injustice and turnover intention, and Hypothesis 14 was not supported.

4.5 Summary of research hypotheses testing

In Chapter 2, research hypotheses are put forward based on literature review, theoretical basis, and the current situation of food delivery riders. Based on the EFA, CFA and SEM analysis, SEM models with mediating and regulating effects are constructed, and relevant hypotheses are validated. The research results show that 12 hypotheses are supported and two are not.

H1: Customer injustice is positively related to the emotional dissonance of food delivery riders, supported.

H2: Customer injustice is negatively related to the occupational commitment of food delivery riders, supported.

H3: Customer injustice is positively related to the turnover intention of food delivery riders, supported.

H4: Emotional dissonance is negatively related to the occupational commitment of food delivery riders, supported.

H5: Emotional dissonance is positively related to the turnover intention of food delivery riders, supported.

H6: Occupational commitment is negatively related to the turnover intention of food delivery riders, supported.

H7: Emotional dissonance mediates the relationship between customer injustice and the occupational commitment of food delivery riders, supported.

H8: Emotional dissonance mediates the relationship between customer injustice and the turnover intention of food delivery riders, supported.

H9: Occupational commitment plays a mediating role in the relationship between the emotional dissonance and the turnover intention of food delivery riders, supported.

H10: Occupational commitment plays a mediating role in the relationship between customer injustice and the turnover intention of food delivery riders, supported.

H11: Customer injustice positively affects turnover intention successively through emotional dissonance and the occupational commitment of food delivery riders, supported.

H12: Work-family conflict will accentuate the relationship between customer injustice and the turnover intention of food delivery riders through emotional dissonance, not supported.

H13: Work-family conflict will accentuate the relationship between customer injustice and the turnover intention of food delivery riders through occupational commitment, supported.

H14: Work-family conflict will accentuate the relationship between customer injustice and the turnover intention of food delivery riders, not supported.

The research results were shown in Figure 4.8.

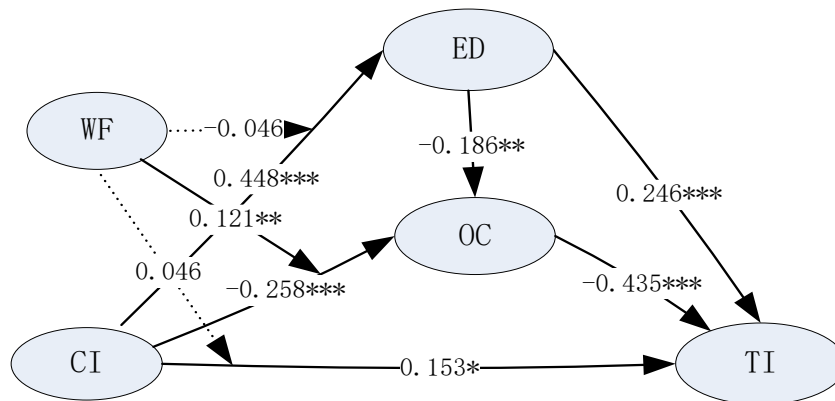


Figure 4.8 Path analysis results of the hypothesized model

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Chapter 5: Discussion and Conclusion

This chapter will discuss and summarize the empirical results and research hypotheses.

5.1 Work status of food delivery riders

5.1.1 General situation

A descriptive statistical analysis of demographic characteristics shows that the majority of food delivery riders are male and were young, the number of family dependents was relatively large, and the financial burden was relatively heavy. The analysis is consistent with the results of the Investigation Report on the Status Quo of Labor Relations in the Food Delivery Industry under the Internet Economy issued in 2018 by Beijing Federation of Trade Unions. However, there are also regional differences. For example, the survey in Beijing shows that most of the riders were unmarried (70.5%), but in this thesis, married riders (51.3%) are slightly more than unmarried ones. They are familiar with the place of work, and their academic qualifications are relatively low, job stability weak, working hours relatively long, and income higher than the average level of Guangxi (the per capita monthly disposable income of Guangxi in the first quarter of 2019 was 2,140 yuan). Judging from the turnover frequencies from the past three years, the food delivery riders surveyed have a relatively high turnover rate. These questionnaire survey results are also consistent with the research background in the first chapter, that is, food delivery riders have relatively decent income and a flexible job, but their turnover rate is relatively high.

The mean value of customer injustice is 2.46 ± 0.93 , lower than 3.91, which is the mean value of research on retail employees carried out by Gang (2013) using a 5-point scoring system. In the survey, 63 people (15.4%) thought that they would be “very rudely yelled at” at work, 73 people (17.8%) expressed that “customers use strong language”, and 77 people (18.8%)

expressed that “customers have a very strong attitude in communication”. Personnel in other service industries such as restaurant waiters, salesmen, and hairdressers have longer contact with customers. The contact time between food delivery riders and customers is short only when the meal is handed over. Despite the short period of time, there still appear customer injustice, which indicates that the food delivery riders have suffered a certain degree of customer injustice in their daily work.

The mean value of emotional dissonance in this study is 2.93 ± 1.22 , lower than 3.764, which is the mean value of research on supermarket employees carried out by Chen (2019) using a 5-point scoring system. A total of 118 respondents (28.8%) gave a score of 3 or more to the item “The emotions I show to customers are not my inner feelings”, indicating that they think this kind of situation exists in their work; 155 respondents (37.9%) gave a score of 3 or more to the item “I must conceal my true emotions when dealing with customers”, indicating that such situations exist in their work. Emotional dissonance occurs when the internal and external emotional expressions of the food delivery riders are inconsistent. This study reveals that there is indeed emotional dissonance in the work of food delivery riders.

The mean value of occupational commitment is 4.18 ± 1.08 . Zhang (2019) used a 5-point scoring system to study teachers and reported a mean value of 3.589, and Liu (2008) also adopted a 5-point scoring system to study public security traffic police and obtain a mean value of 2.3. This shows that the level of occupational commitment of food delivery riders is relatively high. One of the possible reasons is that the income level of the food delivery riders is higher than the local income. Although there may be some problems at work, they still hold a relatively high level of commitment to the food delivery job. Another reason is that in recent years, the food delivery platforms have also increased the attention to the food delivery riders, such as restrictions on the number of riders placed within an area and establishment of rest areas. Continuously improvement of the working conditions of the food delivery riders will also increase their level of occupational commitment.

The mean value of turnover intention is 2.675 ± 1.23 , close to 2.9, which is the mean value of research on teachers carried out by Zhang (2019) using a 5-point scoring system. In the

survey, 113 people (27.6%) agreed with “I have an idea to leave”; 107 people (26.2%) agreed with “I plan to leave within 6 months”; 119 people (29.1%) agreed with “I am now looking for other job opportunities”; and 106 people (25.9%) agreed with “I have the idea of leaving now”. It shows that the job stability of the food delivery riders is not strong, and the turnover intention is at a high level. The mean value of work-family conflict is 3.06 ± 1.23 , higher than 2.59, which is the mean value of research on college teachers carried out by Liao (2017) using a 5-point scoring system, indicating that the work-family conflict of the food delivery riders is at a relatively high level.

5.1.2 Work status from the perspective of analysis of variance (ANOVA)

The results of the analysis of variance show that the emotional dissonance of unmarried food delivery riders is significantly higher than that of married riders. A study conducted by Yan (2014) on 376 employees of service-oriented enterprises in Hubei Province also shows that unmarried employees have significantly higher emotional dissonance than married ones, which is consistent with the conclusions of this study. Huang's (2016) research on 634 frontline service employees of Chinese small and medium-sized enterprises also shows that employees' emotional dissonance is significantly related to their marital status. In this research, emotional dissonance of unmarried riders is higher than that of married ones. From the background information, the unmarried food delivery riders are relatively young and have weaker emotional stability. Once they encounter customer injustice, they are prone to generate more intense emotional reactions. However, food delivery riders need to abide by the food delivery management regulations and show compliance and tolerance. The internal emotions and external emotions are quite different, resulting in relatively high emotional dissonance.

The results of the analysis of variance also show that the emotional dissonance of the food delivery riders is significantly different in different educational backgrounds. The lower the education level, the higher the emotional dissonance. Emotional dissonance is highest for those graduates from junior high school and below, and lowest for those with bachelor's degree and above. The possible reason is that the overall capabilities of highly educated food delivery riders

are relatively high, the possibility of making mistakes in the work is relatively small, the probability of encountering unfair behavior from customers is small, they have the ability to find reasons from their own work, they fully understand customer injustice, and they are easier to control emotions when faced with unfair behaviors from a small number of customers, resulting in lower emotional dissonance. In contrast, the overall capabilities of the low-educated food delivery riders are not high, and it is difficult for them to think and treat the unfair behavior of the customers' emotional dissonance like the high-quality riders, and their emotional dissonance is relatively high when they encounter customer injustice.

The analysis results of this research show that the work-family conflict of food delivery riders have significant differences in the number of dependent family members, which is consistent with the results of Qin (2019) who argues that the work-family conflict of teachers have significant differences in family population. The larger the family population, the more serious the work-family conflict. The research of Bai (2019) also presents similar results. This research shows that work-family conflict is significantly related to the number of dependent family members, and the relationship is progressive. The greater the number of support dependents, the more serious the work-family conflict. The work-family conflict is the most serious for the food delivery riders who need to support three persons, followed by those who need to support two persons, and one person, and the work-family conflict is the least serious for those who do not have any dependent. The possible reason is that the larger the family population, the more complicated the family affairs, which may cause conflict in the coordination of family work, thereby increasing the work-family conflict of food delivery riders.

The research results show that the work-family conflict of food delivery riders has significant differences in the working years in their location, and this is consistent with the research conclusions of Zeng (2018). He believes that the work-family conflict of employees have significant differences in different working years. However, the research of Lin (2014) and Bai (2019) shows that the work-family conflicts of teachers do not differ in different working years, indicating that the performance of work-family conflicts in different occupations is inconsistent. The results of this study indicate that the work-family conflicts between local

food delivery riders and those who have been working in the local place for five years are higher than those who have been working in the local place for three years. It shows that the longer the riders have been in the local place, the higher their work-family conflict will be. The possible reasons are: 1) The longer the working years in the local place they have, the more likely it will be for them to settle in the local place. There are a lot of family affairs and work to deal with, which will cause conflict in affairs and time, leading to increase of their work-family conflict 2) Shorter working years in the local place means that their family is not necessarily in the local area or they have not yet been married in the place where they work. In this case, work and family affairs have less mutual influence, and work-family conflict is accordingly less.

Married riders surveyed (51.3%) had more serious work-family conflict than unmarried riders. However, if the riders make reasonable arrangements for work and life, and if the family members can complement and promote each other in terms of work and family time allocation and mutual understanding, work-family conflict will be transformed into work-family gains, so that work-family resources will not be consumed but improved. It indicates that work-family conflict plays an important role in the relationship between work and life status of food delivery riders.

5.2 Hypotheses testing

5.2.1 Hypotheses testing of influence relationship among variables

5.2.1.1. Relationship between customer injustice and emotional dissonance, customer injustice and occupational commitment, customer injustice and turnover intention

The empirical research results support Hypothesis 1, that is, customer injustice is positively related to the emotional dissonance of food delivery riders, and the path coefficient is 0.448, $p < 0.001$, which is consistent with the results of Harris and Reynolds (Harris & Reynolds, 2003). The research results also support Hypothesis 2, that is, customer injustice is negatively related to the occupational commitment of food delivery riders, and the path coefficient is -0.258,

$p < 0.001$, which is consistent with the research results of Colarelli and Bishop (1990). The research results also support Hypothesis 3, that is, customer injustice is positively related to the turnover intention of food delivery riders, and the path coefficient is 0.153, $p < 0.05$, which is consistent with the results of Walsh (2011) and Hulin (1991).

The food delivery riders adjusted their emotions in accordance with work requirements when handling customer injustice, which caused emotional exhaustion. According to the AET theory, work events will produce related emotions and behaviors. The more customer injustice experienced by food delivery riders, the lower their occupational commitment, and the higher their emotional dissonance and turnover intention. According to the JDR theory (Grandey, Kern, & Frone, 2007), employees invest constantly consumed physical and psychological resources in the interaction with customers, and hope this investment can get the expected return, such as goodwill and fair treatment, compensation for resource exhaustion such as increased remuneration. However, the work requirements force the riders to pay extra resources to deal with the unfair behavior of customers, and they are not compensated accordingly. As a result, an unbalanced interaction is formed that is triggered by customer injustice and causes extra resource exhaustion for food delivery riders without corresponding compensation. Food delivery riders experiencing customer injustice cannot express their true emotions due to the requirements of the working rules, thus leading to emotional dissonance which will consume their emotional resources and, in turn, lead to reduced occupational commitment and increased turnover intention.

5.2.1.2 Relationship between emotional dissonance and occupational commitment, emotional dissonance, and turnover intention

The empirical research results support Hypothesis 4, that is, emotional dissonance is negatively related to the occupational commitment of food delivery riders, and the path coefficient is -0.186, $p < 0.01$, which is consistent with the research results of Rilter (2001) and Lee, Carswell, and Allen (2000). The empirical research results support Hypothesis 5, that is, emotional dissonance is positively related to the turnover intention of food delivery riders, and the path

coefficient is 0.246, $p < 0.001$, which is consistent with the research results of Jung and Yoon (2014).

The essence of emotional dissonance is the performance of the difference between the internal and external emotions of the riders. According to JDR theory, this kind of internal and external emotional differentiation consumes individual emotional resources of the food delivery riders, resulting in higher emotional dissonance. Individual resource exhaustion caused by higher emotional dissonance will hurt riders' enthusiasm for the industry and, in turn, increase their turnover intention.

5.2.1.3 Relationship between occupational commitment and turnover intention

The empirical research results support Hypothesis 6, that is, occupational commitment is negatively related to the turnover intention of food delivery riders, and the path coefficient of -0.435, $p < 0.001$, which is consistent with the research results of Meyer et al. (2002) and Jiao et al. (2017). The relatively low occupational commitment means that the food delivery riders have lost their enthusiasm for the industry and generate the intention to change careers, which leads to an increase of turnover intention for the food delivery riders.

5.2.2 Mediating effect

According to empirical analysis, the mediating effect of customer injustice affecting turnover intention is composed of three paths, namely customer injustice affecting turnover intention through occupational commitment, customer injustice affecting turnover intention through emotional dissonance and customer injustice affecting turnover intention through emotional dissonance and occupational commitment sequentially, the mediating effects of the three paths effects are all significant, accounting for 62.6% of the total effect.

As for customer injustice affecting turnover intention through occupational commitment, the empirical results show that occupational commitment plays a mediating role between customer injustice and turnover intention. The mediation effect is 0.112, accounting for 43.41% of the total indirect effect. Occupational commitment plays a partial mediating role between

customer injustice and their turnover intention. If food delivery riders suffer unfair behavior from customers for a long time at work, it will exert an impact on their occupational commitment. The reduction of occupational commitment will make the riders generate willingness to change careers, which will ultimately affect their turnover intention. Therefore, customer injustice and occupational commitment are the direct and indirect causes of turnover intention of food delivery riders and can be used to predict and manage their turnover intention and behavior.

As for customer injustice affecting turnover intention through emotional dissonance, empirical results show that emotional dissonance plays a mediating role between customer injustice and turnover intention. The mediation effect is 0.11, accounting for 42.64% of the total indirect effect. Emotional dissonance plays a partial mediating role between customer injustice and turnover intention. Customer injustice not only directly affects turnover intention, but also indirectly affects turnover intention through emotional dissonance. The customer injustice brings an impact on the emotional dissonance of the food delivery riders, which may eventually turn to turnover intention.

Regarding customer injustice affecting turnover intention sequentially through emotional dissonance and occupational commitment, empirical research reveals that the sequential mediation effect is significant, the mediation effect is 0.036, accounting for 13.95% of the total indirect effects.

The empirical results show that emotional dissonance plays a mediating role between customer injustice and occupational commitment. The mediation effect is -0.083, accounting for 24.3% of the total effect. Emotional dissonance plays a partial mediating role between customer injustice and occupational commitment. Food delivery riders suffer from customer injustice at work, which has a corresponding impact on their own emotional dissonance. According to the JDR theory, this exhaustion performance reduces occupational commitment in terms of occupational perception. The research contents in the previous section indicate that customer injustice directly affects occupational commitment, and research in this part also

indicate that customer injustice indirectly affects occupational commitment through emotional dissonance.

The research conclusions above are consistent with the logic of the Affective Events Theory. Dealing with negative interaction events causes emotional exhaustion of the food delivery riders. According to JDR theory, negative emotions triggered by negative events will eventually lead to a decrease in riders' occupational commitment and an increase in their turnover intention.

The empirical results show that occupational commitment plays a partial mediating role between emotional dissonance and turnover intention. The mediation effect is 0.081, accounting for 24.8% of the total effect. According to the JDR theory, emotional dissonance of the food delivery riders leads to the exhaustion of their emotional resources, which will cause the imbalance of individual emotional resources of the riders, and the emotional dissonance causes the exhaustion of individual resources of the riders. When this negative emotional exhaustion continues, it will reduce the riders' enthusiasm for the food delivery industry and lower the level of occupational commitment. Riders will generate turnover intention and consider changing the career, and eventually leave the industry. Emotional dissonance not only directly affects turnover intention, but also indirectly affects it through the mediating effect of occupational commitment.

The empirical results show that there are three-fold mediation effects in the process of customer injustice affecting turnover intention. Both occupational commitment and emotional dissonance can reflect the impact of customer injustice in the turnover intention of food delivery riders, and they play a major transmission role (43.1% and 42.64%). It shows that when food delivery riders encounter customer injustice, their occupational commitment and emotional dissonance will be affected, and in turn their turnover intention will be generated.

The research also shows that customer injustice affects turnover intention through emotional dissonance and occupational commitment has a sequential mediation effect (13.95%). Compared with the other two mediation effects between customer unfairness and turnover intention, the mediation effect is relatively small after chain transmission. Therefore, for food delivery riders who encounter customer injustice, from the perspective of mediation effect

analysis, emotional dissonance and occupational commitment have both played mediation (multiple and sequential) effects. Therefore, whether from the perspective of the individual riders or the managers, to prevent occurrence of turnover intention, more attention must be paid to the occupational commitment and emotional dissonance management of the food delivery riders.

5.2.3 Test of moderating effect

5.2.3.1 Work-family conflict's moderation in the mediation effect of customer injustice and turnover intention

The empirical results show that the moderating interaction term customer injustice * work-family conflict is significant, and work-family conflict plays a moderating role in the relationship between customer injustice and occupational commitment. Moreover, after further analysis, work-family conflicts also significantly affect the mediating effect of occupational commitment in the relationship between customer injustice and turnover intention.

The results of the moderating effect indicate that the work-family conflict of the food delivery riders positively moderates the relationship between customer injustice and occupational commitment. In the SEM model, customer injustice has a negative impact on occupational commitment ($B=-0.2666$, $p<0.05$). However, the moderating effect is positive ($B=0.1211$, $P<0.05$), indicating that there is a negative relationship and positive moderating effect (Qiu, 2017). When customer injustice increases, occupational commitment will decrease. Work-family conflict can positively reinforce this impact on occupational commitment, that is, the higher the work-family conflict of the riders, the greater the impact of customer injustice on occupational commitment, and the greater the reduction in occupational commitment. However, the decreasing trend is influenced by the negative relationship and positive moderating effect, so the trend is slowing down. If the food delivery riders suffer from high work-family conflict and customer unfair behavior, the work-family conflict and customer unfair behavior may work together and aggravate the riders' emotional resource exhaustion and form dual exhaustion, thereby exacerbating the negative impact of customer injustice on occupational commitment

and leading to a sharp decline in occupational commitment. This result indicates that high work-family conflicts will aggravate the individual exhaustion of emotional resources at work, and it generates dual emotional exhaustion together with customer injustice and strengthens the negative impact of customer injustice. According to the moderating role of work-family conflicts, it is known that we should pay attention not only to the work of food delivery riders, but also their family situation. It is necessary to train riders to coordinate the relationship between family and work, especially deal with conflicts between the two.

Work-family conflict significantly moderates the mediation effect of occupational commitment in the relationship between customer injustice and turnover intention. Since the moderating effect of work-family conflict is also related to the proven mediating effect, further analysis of the moderating effect of work-family conflict on mediation is needed. According to the results of empirical analysis, with the increase of work-family conflicts, the mediating effect of customer injustice affecting turnover intention through occupational commitment decreases. The limits of the moderating effect of work-family on mediation conflict is -4.43 to 0.96, and the moderating effect of work-family conflict beyond these two limits is not significant. By paying attention to the work-family conflicts of food delivery riders, their turnover intention can be effectively reduced.

5.2.3.2 Work-family conflict moderating customer injustice and emotional dissonance

The empirical results show that the interaction of customer injustice * work-family conflict is not significant, and work-family conflict does not moderate the relationship between customer injustice and emotional dissonance. Our interpretation is the following: The direct impact of customer injustice on emotional dissonance is very strong. The path coefficient of customer injustice to emotional dissonance is the highest in the model, reaching 0.448. Once the riders encounter customer injustice, they will always suffer from certain degree of emotional dissonance. It is also consistent with the theory of affective events that unfair behavior will always cause emotional consumption, which leads to emotional dissonance.

5.2.3.3 Work-family conflict moderating relationship between customer injustice and turnover intention

The empirical results show that the interactions of customer injustice* work-family conflict is not significant, and work-family conflict does not moderate customer injustice and turnover intention. The possible reason is that turnover intention is the final manifestation of negative emotions at work. It is the rational thinking of the food delivery riders on the job. According to Hypotheses 3, 5, and 6, the factors that affect turnover decisions of the riders come from work, indicating that the family of riders in China has an impact on the work, but it has little effect on turnover intention.

5.3 Research contributions

5.3.1 Theoretical contributions

1. This study enriches the application of affective events theory and JDR theory in new fields. The discovery of the mediating effect of emotional dissonance and occupational commitment in the research is the enrichment of the affective events theory. There are multiple mediation effects in the relationship between customer injustice and turnover intention, and there exists sequential mediation effect in the way customer injustice affects turnover intention through emotional dissonance and occupational commitment sequentially. It is also found that work-family conflict has a moderating effect on occupational commitment affecting customer injustice and turnover intention, but it has no moderating effect on the direct relationship between customer injustice and emotional dissonance as well as customer injustice and turnover intention. This research is an extension of the theoretical framework of JDR research.

2. This research is the first quantitative research in China on the work status of food delivery riders based on JDR theory. It analyzes the work status of the food delivery riders. It measures, for the first time, the customer injustice, emotional dissonance, occupational commitment, turnover intention, and work-family conflict of this emerging social group and a relationship model between variables is constructed. It is found that emotional dissonance has partial

mediating effect on the relationship between customer injustice and turnover intention, emotional dissonance has a partial mediating effect on the relationship between customer injustice and occupational commitment, and occupational commitment has a mediating effect on the relationship between emotional dissonance and turnover intention. Work-family conflict has a moderating effect on the indirect relationship of occupational commitment affecting customer injustice and turnover intention, which provides a theoretical framework for subsequent research on this group.

3. It expands the research on occupational commitment and turnover intention under a new type of work relationship. The working hours of the riders can be managed freely, but at the same time they are restricted by the platform, restaurants and customers. Carrying out research on occupational commitment and turnover intention in this new type of work relationship is an extension of the current research on occupational commitment and turnover intention.

5.3.2 Management implications

5.3.2.1 For managers

According to the conclusions, this study provides managers with relevant management suggestions as follows.

This study reveals a series of negative impacts of customer injustice on food delivery riders. Managers can take the following measures to prevent customer injustice and reduce its negative impacts. First, managers can publicize and remind customers on the ordering platform system that they are expected to respect food delivery riders. When encountering problems, they can give feedback on the platform through the ordering system, instead of directly venting dissatisfaction to the riders. In addition, business managers need to strengthen internal management and flow control to reduce the occurrence of errors and accidents in the delivery process, thereby reducing the possibility of customer discomfort and complaints. Finally, managers need to strengthen business training for riders, mainly through offering standardized training on the handling methods and skills when facing customer injustice, including standard

language, posture and movement in face-to-face communication, and communication skills with customers.

The definition of occupational commitment in this study is targeted at the entire food delivery industry. Empirical analysis shows that occupational commitment is affected by customer injustice, emotional dissonance, and work-family conflict, and it also affects turnover intention. There is a certain period for the increase or decrease of occupational commitment. Therefore, managers need to start from considering the possible reasons for the generation of occupational commitment, prevent excessive occurrence of customer injustice, and appropriately carry out some industry cognition building activities to enhance professional loyalty and improve the sense of gain and satisfaction. Managers should care about the daily work status of the riders, reduce their emotional exhaustion, to reduce emotional dissonance and improve occupational commitment. More importantly, companies within the industry need to make efforts for the healthy development of the industry, establish and standardize industry rules through industry associations and other channels, standardize peer operations, and improve the industry recognition and loyalty of employees.

Research results show that there is no difference in the performance of turnover intention in terms of different income levels, indicating that it is not enough for managers to manage turnover intention only by increasing the income. Research shows that turnover intention is affected by several direct and mediating variables, and it is also moderated by work-family conflict. It indicates that managers must comprehensively consider the factors that affect the turnover intention of food delivery riders.

The empirical results show that the work-family conflict has the effect of moderating the relationship between variables. According to the JDR theory, food delivery riders who suffer from customer injustice are prone to experiencing emotional exhaustion at work. Work-family conflict will increase their emotional exhaustion at work. Therefore, managers need to care about the riders' families and help coordinate the conflicts between work and family affairs, to reduce the work-family conflicts and promote the transition from work-family conflicts to work-family gains.

5.3.2.2 For food delivery riders

Based on the conclusions of empirical research, suggestions are put forward on the work status and work emotion management of food delivery riders from the following aspects.

First, food delivery riders should actively participate in the work skills training organized by the platform. They should improve their communication skills and improve the methods and skills of dealing with unfair behaviors of customers. In addition, riders should learn to master emotional control skills and learn to control their own emotions and behaviors when they encounter unfair treatment from customers. Finally, riders should coordinate family and delivery work and allocate time and energy appropriately. It is necessary to realize that family harmony is conducive to career development and a stable and happy marriage should be maintained to turn family-work conflict into family-work gains.

5.3.2.3 For customers and community

Food delivery riders are an emerging social group. The society should pay more attention to them, understand their work status, and help them improve their living conditions. For example, more attention can be paid to reduce their work pressure, optimize their work process and minimize safety issues. Customers should also understand more and make their best to reduce customer injustice in the delivery process. The work process of food delivery riders should be standardized and protected from the perspective of the system, and work traffic management and food delivery work specifications for food delivery riders should also be established. It is also feasible to carry out group interviews with the riders, and the results of the interviews can be made public to gain support from other groups in society.

It is advisable to establish food delivery rider industry associations to regulate daily work and protect their rights and interests. It is also advisable to carry out training to promote comprehensive quality and conduct group communication with other groups.

5.4 Research limitations and research prospect

5.4.1 Research limitations

1. In terms of data collection. The data in this research are all personal subjective questionnaire data of food delivery riders, and the individual subjective factors of the respondents have a certain influence on the questionnaire. The questionnaire collection is only carried out in five cities in Guangxi. Whether the research conclusions can be applied in other places remains to be tested.

2. The data collected in this study are cross-sectional data, and it is impossible to determine the causal relationship between variables. Future researchers may conduct longitudinal studies.

3. Catering merchants and customers are the employers and end users of food delivery service. The work status of the food delivery riders is not only affected by customers and platform managers, but also by the catering merchants. The factor of merchants is not included.

5.4.2 Suggestions for future research

1. Future research can try to analyze the influence of other factors, such as the quality of service to customers by food delivery riders who have suffered unfair behavior from previous customers as well as food delivery riders' occupational cognition and industry norms. Future research can comprehensively analyze the work status of the food delivery riders and establish a more complete research framework targeting at the group of food delivery riders.

2. Due to the different levels of urbanization in different regions, the number of customers, customer quality and customer habits may vary in different regions. Therefore, on the basis of this research, a wider range of investigations can be carried out, and data with time lag effects can be collected for causality analysis to enrich and verify the results of this research.

3. Future research on food delivery riders can be carried out from the perspective of catering merchants. Merchants are also an important link in the work process of food delivery riders and one of the subjects of interaction of the riders. Factors such as the meal preparation time, attitude and behavior of the merchants also affect the working status of the food delivery riders.

Therefore, it is necessary to carry out research based on the fair (or unfair) behavior of merchants as a starting point.

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Annexes

Questionnaire on the Work Status of Food Delivery Riders

Questionnaire No.:

Dear Mr/Ms XX,

Thanks very much for your participation in the questionnaire survey on food delivery riders' work status. The data collected on condition of anonymity will be kept strictly confidential and used only for academic research. Please rest reassured to answer all questions according to your experience and true feelings. There are no standard answers to all the questions in this questionnaire. Please check among the options representing your views. Thanks very much for your support and cooperation!

“Never”, “barely”, “occasionally”, “sometimes”, “often”, and “always” occur

Part 1: Job-related questionnaire

Please tick $\sqrt{}$ under the corresponding options according to the job description and experience. The larger the number is, the more frequently this situation occurs. There are six levels from “Totally disagree” to “Totally agree”.

NO.	Item	Never occur	Barely occur	Occasionally occur	Sometimes occur	Often occur	Always occur
1	Customers yelled at you.	1	2	3	4	5	6
2	Customers used condescending language.	1	2	3	4	5	6
3	Customers spoke aggressively to you.	1	2	3	4	5	6

NO.	Item	Never occur	Barely occur	Occasionally occur	Sometimes occur	Often occur	Always occur
4	I show feelings to customers that are different from what I feel inside.	1	2	3	4	5	6
5	I have to cover up my true feelings when dealing with customers.	1	2	3	4	5	6
6	I fake the emotions I show when dealing with customers.	1	2	3	4	5	6
7	At this time in your career, would you want to quit this job if it were possible?	1	2	3	4	5	6
8	Are you planning to leave your job within the next six months?	1	2	3	4	5	6
9	Are you actively searching for another job right now?	1	2	3	4	5	6
10	Please indicate whether you have ever had thoughts of leaving your job.	1	2	3	4	5	6
11	Working as a food delivery rider makes me happy.	1	2	3	4	5	6
12	I am proud of working in the food delivery industry.	1	2	3	4	5	6

NO.	Item	Never occur	Barely occur	Occasionally occur	Sometimes occur	Often occur	Always occur
13	I am glad to be a food delivery rider.	1	2	3	4	5	6
14	I really identify with the profession as a delivery rider.	1	2	3	4	5	6
15	I am full of enthusiasm for the career as a food delivery rider.	1	2	3	4	5	6
16	The demands of my work interfere with my home and family life.	1	2	3	4	5	6
17	The amount of time my job takes up makes it difficult for me to fulfill family responsibilities.	1	2	3	4	5	6
18	Things I want to do at home do not get done because of the demands of my job puts on me.	1	2	3	4	5	6
19	My job produces strain that makes it difficult to fulfill family duties.	1	2	3	4	5	6
20	Due to work-related duties, I have to make changes to my plans for family activities.	1	2	3	4	5	6

Part 2: Basic information

1. Gender:

A. Male B. Female

2. Age: ____ years old.

3. Marital status

A. Married B. Unmarried C. Others (e.g. divorced)

4. The number of people you need to support (including the elderly and children)

A. 0 persons B. 1 person C. 2 persons D. 3 persons and above

5. How long have you lived in this place?

A. I am local B. Less than 1 year C. 1-2 years

D. 2-4 years E. More than 5 years

6. Education background

A. Junior High school and below B. senior high school

C. junior college D. Bachelor or above

7. You have worked in Food Delivery for ____ months.

8. Your working hours average _____ hours per week.

9. Monthly income:

A. Less than 3000 RMB. B. 3000-5000 RMB C. 5000-7000 RMB

D. 700-9000 RMB E. More than 9000 RMB

10. The number of times you have changed jobs in the past three years is:

A. 0 B. 1 time C. 2 times D. 3 times or more

11. Your current city of work is: _____

Thank you!