A Study on the Influence of Improper Interaction on Couriers’ Job Engagement  
—The Moderating Influence of Organization Support

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ABSTRACT
In the process of logistics delivery, the negative effects caused by improper interaction between customers and couriers cannot be ignored. Based on affective events theory and conservation of resources theory, this research reveals the negative conduction mechanism of improper interaction between customers and couriers from the perspective of emotional exhaustion, and verifies the moderating effect of organization support. It is found that: first, the improper interaction has significant positive effects on couriers’ emotional exhaustion, and has a significant negative impact on couriers’ job engagement; second, emotional exhaustion plays a mediating role between the improper interaction and couriers’ job engagement; third, organization support plays a moderating role between the relationship of improper interaction and couriers’ emotional exhaustion. This study reveals the negative effects and inherent conduction mechanism, as well as the boundary conditions of improper interaction, from a new theoretical perspective.

Keywords: improper interaction, emotional exhaustion, organization support, job engagement

1. INTRODUCTION
According to statistics, there are more than 7 million people engaged in logistics delivery in China. They not only undertake the work at the end of logistics, but also provide convenient services for thousands of families. We all expect that the courier can be highly enthusiastic and responsible. As for the causes of job involvement changes, many literatures have carried out researches on self-factors such as identity, job characteristics, self-evaluation and psychological atmosphere among various antecedents. At present, less attention has been paid to external working interaction objects, especially the negative effects of working interaction objects. Couriers are also self-respecting working groups with high spiritual needs of safety and respect. However, in reality, improper customer interactions in the process of logistics distribution bring huge psychological pressure and self-esteem damage to couriers, which to some extent affects their work input. According to Affective Events theory, specific events must cause occupational Affective reactions which are mapped to their work behaviors and attitudes. It also reflects the fact that emotions are triggered by events and ultimately act in such a way. According to the Conservation of Resources theory, whether improper interaction behaviors of work interaction objects will lead to job engagement reduction or even resignation of professionals depends on whether the consumption and supplement of their own resources are balanced. [1] In the service process, the couriers will complete the service link according to the requirements of the organization, which will be accompanied by the couriers resource consumption. Improper interaction behaviors of customers will result in greater consumption of their own emotional resources. If resources from other channels cannot be supplemented, emotional exhaustion of couriers will be caused and affect the job engagement. The purpose of this paper is to explore the mediating effect of emotional exhaustion between customer improper interaction and couriers’ job engagement, and to reveal the transmission mechanism between customer improper interaction and couriers’ job engagement.

2. LITERATURE AND HYPOTHESIS

2.1. Improper Customer Interaction Behavior and Couriers’ Job Engagement
In recent years, the topic of Workplace bullying has been widely concerned and equated with Workplace bullying. [2] Workplace bullying is defined as “harassment, aggression, exclusion and other behaviors” that can have a serious negative impact on work. [3] In the service industry, the typical work bullying source is bullying customers (Customer mistreatment), is mainly refers to the Customer’s words and deeds bring staff such as poor perception of infringement. It is mainly reflected in the
destruction of work order, bringing bad feelings to the staff and even damaging the interests. The verbal aggression of customers is a significant antecedent variable of employee turnover intention. It can be seen that improper behaviors of customers on couriers in the interaction process will have a negative impact on couriers' work behavior and input. Based on the above analysis, this paper proposes the following hypotheses:

Hypothesis 1: Improper customer interaction has a significant negative impact on the job engagement of couriers.

2.2. Mediating Effect of Emotional Exhaustion

The focus on Emotional exhaustion stems from research on Job burnout, which is the antecedent variable of burnout. Emotional exhaustion is mainly reflected in the people who work with people. [4] In the process of logistics service, couriers are required to complete various tasks facing customers according to the requirements of the organization, which requires couriers to invest great patience, responsibility and enthusiasm to complete the task, which consumes their own resources. According to the resource protection theory, if employees' emotional resource consumption is timely supplemented, such as organizational support, leadership appreciation, colleagues' recognition, etc., resource protection motivation will not be generated. [5] Improper customer interaction is a typical event that consumes emotional resources, and even leads to emotional exhaustion. In this process, couriers need to spend additional emotional resources to make up for the loss of resources. Studies have confirmed that inappropriate interaction behavior and aggressive behavior have significant positive effects on emotional exhaustion. Based on this, this paper proposes the following hypothesis:

Hypothesis H2: Improper customer interaction has a significant positive impact on emotional exhaustion of couriers.

Emotional exhaustion is the sense of fatigue caused by excessive consumption of personal emotional resources. It is an important component and antecedent variable of job burnout. [6] Therefore, once emotional exhaustion occurs, self-esteem, achievement and sense of achievement will be damaged, which will inevitably affect employees' work attitude and behavior, thus resulting in non-productive work input. Based on this, this paper proposes the following hypothesis:

Hypothesis 3: Emotional exhaustion has a significant negative impact on the job engagement of couriers.

Hypothesis 4: The couriers' emotional exhaustion has a significant negative impact on their job engagement.

2.3. The Moderating Influence of Organization Support

Organization Support is defined as the comprehensive experience and view of employees within an Organization on the importance of their own contributions and benefits. [7] The organization provides support for its members in work and life, such as work recognition, positive feedback, work autonomy, life welfare and equal respect, etc. Employees can make comprehensive judgments based on their own psychological perception and experience. When employees think that their contributions have been recognized and given feedback by the organization, attach importance to the value of employees in the organization, and support employees to carry out various work freely, they will perceive organizational support. Previous studies have shown that organizational support is an important predictor of job engagement. [8] According to the interpersonal interaction theory, organizational support can stimulate employees' motivation and willingness to contribute to the organization, and such organizational support as respect, identification and belonging can also bring positive emotional experience to employees, which all have a significant impact on their job engagement. Organizational support studies organizational problems from the perspective of employees. As a direct external supplement of employees' own resources, organizational support has a direct impact on employees' attitudes and behaviors. Organizational support has a significant buffering effect on the role pressure, satisfaction and emotional stability of employees. [9] Other studies have shown that organizational support has a moderating effect on job satisfaction, emotional commitment and job stress. [10] In emergency situations, organizational support can enhance employees' sense of self-control and relieve psychological stress. [11] From the perspective of resource protection theory, organizational support is an important external energy supplement source for employees. When the external situation changes and consumes personal resources, organizational support can supplement resources or alleviate resource consumption. We hypothesized that, in addition to self-regulation accidents, delivery staff would seek organizational support to alleviate psychological depression, avoid emotional exhaustion and reduce the negative impact on work engagement in the case of improper interaction. Therefore, this paper proposes the following hypothesis:

Hypothesis 5: Organization support has a negative moderating effect on the relationship between improper customer interaction and couriers' emotional exhaustion. In other words, the stronger the organization support felt by couriers, the smaller the impact of improper customer interaction on emotional exhaustion of couriers.

According to the above theoretical analysis, the following theoretical research model is established, as presented in Figure 1.
3. RESEARCH METHOD

3.1. Research Samples

This paper takes front-line couriers of logistics companies, express companies and delivery companies as the objects of investigation, and all customers have experienced improper interactions with couriers within six months. From September to November 2019, a total of 300 questionnaires were distributed and 220 were valid. The demographic profile of the sample set is presented in Table 1.

Table 1. Demographic profile (N = 220)

| Demographic          | Frequency | Percentage |
|----------------------|-----------|------------|
| Gender               |           |            |
| Male                 | 190       | 86.4       |
| Female               | 30        | 13.6       |
| Age (years)          |           |            |
| <25                  | 51        | 23.2       |
| 26-30                | 68        | 30.9       |
| 31-35                | 59        | 26.9       |
| 36-40                | 28        | 12.7       |
| >40                  | 14        | 6.3        |
| Education            |           |            |
| High school or below | 170       | 77.2       |
| Bachelor degree      | 50        | 22.8       |
| Monthly income (RMB) |           |            |
| <3000                | 39        | 17.7       |
| 3000-6000            | 128       | 58.2       |
| >6000                | 53        | 24.1       |

3.2. Variable Measurement

In order to ensure the questionnaire has high reliability and validity, this paper, on the basis of referring to the previous mature research scale, combined with the specific research object, research purpose and relevant work content of this study, appropriately modified and improved the scale. Before the questionnaire was formally issued, a semi-structured interview was conducted with couriers. According to the interview results, the questionnaire was appropriately revised, especially to avoid unclear language expression and unreasonable structure, so as to ensure the scientific nature and rigor of the questionnaire.

Improper customer interaction: This paper mainly refers to the scale developed by Shao (2014) et al. [12] to measure improper customer interaction from three aspects of improper speech, improper behavior and unreasonable requirements, including six items. Cronbach's coefficient of this scale in this study was 0.891.

Emotional exhaustion: Referring to the emotional exhaustion scale in Maslach& Jackson (1981), [4] mainly measures employees' psychological depression, frustration, loss of self-esteem and energy consumption after experiencing inappropriate interactions, which contains 6 items. Cronbach's coefficient of this scale in this study was 0.973.

Organizational support: Referring to the composite organizational support scale developed by Shao Fang and Fan Yun (2013), [13] measured organizational support of logistics companies from four dimensions, namely, superior support, colleague support, emotional support and instrumental support, which mainly contained 8 questions. Cronbach's coefficient of this scale in this study was 0.848.

Job engagement: Based on the scale developed by Schaufeli and Salanova, [14] job engagement was measured from three dimensions of vitality, dedication and concentration, including 8 items. Cronbach's coefficient of this scale in this study was 0.963.

4. DATA ANALYSIS AND HYPOTHESIS TESTING

4.1. Reliability Test

In this study, all variables were analyzed by SPSS22.0 reliability test. The results are shown in Table 2. It can be seen from Table 2 that the reliability coefficient of all variables designed in this study is above 0.80, so the reliability of all variables in this study is good.

Table 2. Reliability test

| Variable               | Cronbach’s α |
|------------------------|--------------|
| Improper Interaction   | .891         |
| Emotional Exhaustion   | .973         |
| Job Engagement         | .963         |
| Organization Support   | .848         |

4.2. Validity Test

4.2.1. Convergent validity

In this study, AMOS21.0 was used to test the convergence validity and discriminant validity of each research variable, and the results are shown in Table 3. As can be seen from Table 3, the standardized factor load of all
variable measurement items in this study is above 0.6, and the value of the reliability CR of each variable combination is greater than 0.7, and the value of the average variation AVE is above 0.5. Therefore, all the variables designed in this study passed the test of convergence validity.

4.2.2. Discriminant validity test

In this study, in order to test the discriminant validity of each variable, the value of AVE and the square of the correlation coefficient between this variable and other variables were compared. The results are shown in Table 4. It can be seen from Table 4 that the AVE value of each variable on the diagonal is greater than the square of the correlation coefficient between each variable. Therefore, we can judge that all variables designed in this study pass the discriminant validity test.

4.3. Main Effect Test

In this study, the structural equation model was used for hypothesis testing. In the results of various fitting indexes of the structural model, the values of X divided by DF were 2.167(≤3), GFI was 0.918, NFI was 0.963, and CFI was 0.980, all of which were greater than the reference value of 0.9, and RMSEA was 0.073, less than the reference value of 0.08, meeting the satisfaction standard. Therefore, each fitting index of the structural model in this study is good. In addition, Fig.1 shows the path analysis results of the relationship between improper interaction behavior, emotional exhaustion and job engagement. From the test results, the improper interaction behavior has a significant negative impact on the job engagement of logistics assigned post (β=-0.121, T-value =-2.236). Improper customer interaction has a significant positive effect on emotional exhaustion of couriers (β=0.613, T-value =9.380). Hypothesis H2 is verified. The emotional exhaustion of couriers has a significant negative impact on job engagement (β=-0.785, T-value =-12.894). Therefore, hypothesis 3 is supported.

4.4. The Mediating Effect of Emotional Exhaustion of Couriers

In this study, the structural equation model was used to test the mediating effect of emotional exhaustion. Bootstrap method was used for repeated sampling for 5000 times, and the test results were shown in Table 5. As can be seen from Table 5, the mediating effect size of emotional exhaustion between improper interaction and job engagement is -0.563, and under the 95% confidence interval of bias-Corrected, CI=[-0.752,-0.418], Percentile 95% confidence interval, CI=[-0.747,-0.415], indicating significant mediating effect of emotional exhaustion. Hypothesis H4 was verified.

4.5. The Moderating Effect of Organization Support

In order to verify the regulatory role of organizational support between improper interaction and emotional exhaustion, the samples were first divided into a high group and a low group according to the strength of organizational support. After grouping, the regulatory role was tested through AMOS21.0. Firstly, it verifies whether the directivity of regulating effect of regulating variables in this study is consistent with the hypothesis. The results are shown in Table 6. It can be seen from Table 6 that the standardization coefficient of groups with high level of organizational support perceived by logistics personnel is lower than that of groups with low level of organizational support, which is consistent with the previous assumption that organizational support has a negative regulating effect between improper customer interaction and emotional exhaustion.

Secondly, this study tested the difference between the Free model and the restrictive model X after verifying that the adjustment direction of the moderator variable was consistent with the hypothesis. Generally speaking, when the difference of degrees of freedom is 1, the difference of X is above 3.84, and the adjustment effect is significant. The test results of X in this study are shown in Table 7. It can be seen from Table 7 that the difference of X between the Free model and the restricted model when the difference of freedom is 1 is 5.780, greater than 3.84, and the significance level is less than 0.05. Therefore, organizational support plays a significant role in regulating improper interaction and emotional exhaustion, and hypothesis H5 has been verified.

Table 3. CFA test

| Variable | Item | Standardized factor loading | t | S.E | P-value | CR | AVE |
|----------|------|-----------------------------|---|-----|---------|----|-----|
| CII      | CII1 | 0.921                       | - | -   | -       | 0.898 | 0.690 |
| Variable      | Improper Interaction | Emotional Exhaustion | Job Engagement | Organization Support |
|---------------|----------------------|----------------------|----------------|----------------------|
| Improper Interaction | 0.690 | 0.899 | 0.785 | 0.730 |
| Emotional Exhaustion | 0.376 | 0.736 | 0.785 | 0.648 |
| Job Engagement | 0.361 | 0.736 | 0.785 | 0.648 |
| Organization Support | 0.362 | 0.671 | 0.648 | 0.730 |

Table 4. Discriminant validity test

| Variable | Point estimates | Product of Coefficients | Bootstraping |
|----------|-----------------|-------------------------|--------------|
|          |                 | Bias-Corrected 95% CI   | Percentile 95% CI |
|          | S.E             | Z  | Lower  | Upper  | Lower | Upper |
| Improper Interaction → Job Engagement | -0.704 | 0.092 | -7.65 | -0.901 | -0.540 | -0.899 | -0.538 |
| Improper Interaction → Job Engagement | -0.563 | 0.083 | -6.783 | -0.752 | -0.418 | -0.747 | -0.415 |

Table 5. The mediating effect of emotional exhaustion
### Table 6. The moderating effect of organization support

| Research hypothesis | Low group | | High group | | Adjust the direction |
|---------------------|-----------|---|-----------|---|-----------|
|                     | Standardized coefficient | t | Standardized coefficient | t | consistent |
| H5                  | 0.481     | 3.341*** | 0.123     | 3.154*** | consistent |

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

### Table 7. X² Difference test

| Research hypothesis | Free model | Restricted model | The difference of X² when the difference of degrees of freedom is 1 | Adjust the effect |
|---------------------|------------|------------------|-----------------------------------------------------------------|------------------|
|                     | X²         | X²               | 4.779**                                                          | significant      |
| H5                  | 93.837     | 98.616           | 4.779**                                                          | significant      |

Note: When P <0.05 and the DF difference is 1, X ≥3.84, the moderating effect is significant

### 5. CONCLUSION AND DISCUSSION

#### 5.1. Conclusion

In this paper, the influence of improper customer interaction on job engagement of couriers is taken as the research subject, and the mediating effect of emotional exhaustion and the regulating effect of organizational support are tested in combination with the relevant essence of resource protection theory and emotional event theory. In brief, this study mainly draws the following conclusions: (1) improper customer interaction has a significant positive effect on emotional exhaustion of couriers and a significant negative effect on job engagement; (2) Emotional exhaustion plays an intermediary role in the relationship between improper customer interaction and the job involvement of couriers; (3) Organizational support plays a negative regulating role in the relationship between improper customer interaction and emotional exhaustion. Therefore, the improper customer interaction conducts effect conduction to the work input of couriers through emotional exhaustion, and this conduction mechanism is regulated by organizational support.

#### 5.2. Theoretical Contribution

This paper not only enriched the research on the relationship among inappropriate interaction behavior, emotional exhaustion, work input and organizational support of work objects, but also provided some valuable Suggestions for human resource management and organizational construction of logistics companies. The theoretical significance of this study is mainly reflected in: First, this study creatively introduced customer inappropriate interaction behavior into the influencing factors of couriers' job engagement, and constructed and verified the conduction mechanism model of "customer inappropriate interaction behavior -- emotional exhaustion -- job engagement". At the same time, according to the theory of resource protection, this paper empirically examines the conduction between the improper interaction and the work input of the couriers, and reveals the internal mechanism of the conduction. Second, while verifying the main effect, this paper introduces the moderating variable of organizational support, and verifies the moderating effect of...
organizational support on the relationship between improper interaction and emotional exhaustion. The conclusion of this study extends the boundary of discipline research and is more helpful to understand the external constraints of the influence of improper customer interaction on emotional exhaustion. At the same time, high organizational support can reduce the negative impact of improper customer interaction behaviors, that is, couriers with high organizational support can reduce the consumption of their emotional resources and quickly get supplies, and thus indirectly reduce the negative impact on the work input of couriers.

Third, this study reveals the objectification of interaction in the process of the negative impact of improperly interacts and conduction mechanism of action, mainly used for histologic, behavioral science and pedagogy, psychology and other related research results and methods, especially in the specific field of logistics industry to carry out the verification, makes the research more practical significance.

5.3. Management Inspiration

With the rapid growth of logistics personnel, customers’ demand for service experience is further enhanced, leading logistics companies to open the concept of quantity leading and customer leading. The research results of this paper are of great significance to the construction of human resources system in logistics companies. First, logistics companies generally advocate customer-centered service and are influenced by the general concept of "customer is God" in the service industry. The corresponding institutional arrangements are mainly reflected in the relevant interests of customers who can control the couriers. This also becomes the customer improper interaction behavior important reason. While advocating customer-centered and improving service experience, logistics companies should also recognize the serious negative impact of improper customer interaction and reduce the impact of improper customer interaction through various measures.

Secondly, emotional exhaustion plays a mediating role in the negative impact of improper customer interaction on the work engagement of couriers. The logistics company should monitor the improper interaction behaviors of customers, and provide high organizational support to the couriers who suffer from improper interaction behaviors of customers, so as to understand the true thoughts of the couriers and establish reasonable channels of expression. Let them truly feel the emotional and instrumental support from superiors and colleagues. So that emotional resources can be protected and replenished, thus reducing the negative impact on job engagement.

Thirdly, organizational support can significantly regulate the negative impact of improper customer interaction. Therefore, logistics companies should strengthen the construction of organizational support. The internal organizational function reform and relevant institutional arrangements of logistics companies should make the couriers feel the care and warmth from the organization all the time and realize the realization of self-value in their work. This also provides a new perspective for the construction of incentive system for logistics companies.

5.4. Research Limitations and Future Prospects

In addition to homologous bias, there are still some areas to be improved and further studied. (1) In terms of research and sampling, the research objects are mainly concentrated in the four logistics companies in the Beijing-Tianjin-Hebei region, and the sample size and representativeness are slightly insufficient. In the future, the scope and number of samples can be expanded to enhance the universality of the research conclusions in multiple fields. (2) In the process of verifying the main effect of improper customer interaction and job involvement of logistics delivery personnel, except for verifying the mediating effect of emotional exhaustion and the moderating effect of organizational support, no other mediating variables and moderating variables are considered, which affects the integrity and explanatory power of the theoretical model of this study. In the future, the theoretical model needs to be further improved and verified in practice.

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