

The Impact of Pay Equity on Organisational Resilience

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Abstract. In recent years, natural disasters, geopolitics, trade disputes and many other emergencies have posed great challenges to the survival and development of enterprises. All the activities of business management are facing greater uncertainty than ever before. In order to enable enterprises to better survive and develop in the VUCA era, how to improve organizational resilience has become a key concern of enterprises. Employees, as the core force of the organization, have a certain impact on the enhancement of organizational resilience. Therefore, this paper divides employee pay equity into internal and external aspects, i.e., internal employee pay gap as well as external employee pay gap, and studies the relationship between employee pay equity and organizational resilience through quantitative methods. This paper selects the data of listed non-financial companies in China from 2019-2021 as the research sample, and introduces market competition as a moderator for further research. It is found that: internal employee pay gap can significantly improve organizational resilience; external employee pay gap can significantly improve organizational resilience; market competition positively regulates the relationship between internal employee pay gap and organizational resilience; and market competition positively regulates the relationship between external employee pay gap and organizational resilience. The above findings broaden the research perspective of organizational resilience and provide useful insights on how managers can optimize the current remuneration system to improve the level of organizational resilience.

Keywords: Organizational Resilience; Pay Equity; Internal Employee Pay Gap; External Employee Pay Gap; Market Competition.

1. Introduction

In the era of VUCA (Volatility, Uncertainty, Complexity, Ambiguity), the survival and development of enterprises are facing challenges. The global financial crisis of 2008, COVID-19 pandemic and other events have had a huge impact on the global political and economic environment, even the top enterprises with strong economic strength also suffered from tragic losses, and SMEs are difficult to develop sufficient resilience to cope with risks due to the paucity of resources in the face of uncertain and challenging environment. (Thun et al., 2011). Empirical and theoretical studies show that organizational resilience is the most direct factor explaining why companies can successfully overcome crises (Chen, R et al.,2021). Therefore, how to build and strengthen organizational resilience has become an urgent problem for all enterprises.

Organizational resilience is the ability of an organization to adapt to changes and recover quickly when facing unexpected events and unknown crises. Under the current complex and changing situation, resilience may be an important source of sustainable competitive advantage and should be developed deliberately (Duchek,2020).The study of organizational resilience has attracted more and more scholars' attention, and existing research has focused on definition of organizational resilience, the antecedents and the results of organizational resilience and other related issues. However, since scholars have different focuses on the concept of organizational resilience, and organizational resilience is a multidimensional and multilevel concept, there are differences in the research results based on different research perspectives, which, to a certain extent, hinders the further development of organizational resilience-related research. In the past, most of the research on organizational resilience has been conducted at the organizational level, and the employee level has not been given due attention. Human resources, as one of the most important resources of an organization, have a non-negligible impact on organizational resilience (Liang, Fu, and Linlin Cao, 2021). Employees' competence, cognitive level, and professional skills are the basis of organizational resilience

(Lengnick, 2010). Firms with higher resilience improve the knowledge and skills of organizational members through education and training to increase employee productivity and equip them with the capabilities necessary to cope with environmental changes (Wendong Lv et al., 2019). Some studies have shown that the competence, motivation, and creativity of employees can improve the innovation and competitiveness of the organization, enabling the organization to maintain a competitive advantage in uncertain environments, and increasing the resilience of the organization. For an organization to be resilient, the members within the organization must be able to respond to changes quickly and effectively. Lengnick (2011) argues that the implementation of human resource management to improve individual competencies and converge at the organizational level enables firms to respond effectively to the occurrence of crises. A harmonious labor relations climate within an organization can similarly significantly influence employees' positive emotions, affective contracts, and cooperative relationships, thereby increasing organizational resilience (Chi Dongmei et al., 2023).

As the complexity of work increases, employees' attitudes and behaviors are affected by various factors, and pay equity is an important factor in determining the level of employees' efforts, whether based on the economic or social human perspective (Liu, Chun and Sun, Liang, 2010). Pay equity refers not only to the fairness of the remuneration system itself, but also to employees' perception of pay equity. Employees are concerned not only with the absolute value of the compensation they receive, but also with the relative value of their compensation, i.e., by comparing themselves with others and with their past selves, so as to determine whether or not the compensation they receive is reasonable. Therefore, according to the comparison object chosen by employees can be specifically divided into internal pay equity and external pay equity. Internal pay equity refers to the pay gap between employees and their executives within the organization. External pay equity refers to the pay gap between employees and their peers in the same industry. Unreasonable and excessive pay gap may trigger negative emotions among employees, affecting their motivation and teamwork, which hindering the enhancement of organizational resilience.

According to Kim and Leung (2007), Chinese people attach greater importance to fairness in distribution than Americans and Japanese people. However, in terms of society as a whole, the level of employee pays and income in China is relatively low and there is serious inequity (Luo, Rui, 2015). This inequity between organizational levels can damage cohesiveness (Stewart, 2007), which is not conducive to the formation of organizational resilience. It can be seen that there is a certain correlation between employees' pay equity and organizational resilience. Enterprises can stimulate employees' motivation, reduce the emergence of bad moods, improve their work performance and problem-solving ability, and then improve organizational resilience through the rational setting of the remuneration system.

In view of the fact that most of the previous studies on organizational resilience have been conducted at the organizational level, the employee level has not been given due attention, and there is a large theoretical gap regarding the impact of pay equity on organizational resilience. Based on the review and combing of previous literature, this paper puts forward reasonable hypotheses, takes the internal pay gap and external pay gap as the entry point, analyzes the relationship between the two and organizational resilience through empirical research, and introduces market competition as a moderating variable for further analysis.

By exploring this research question, this paper makes the following contributions to the existing literature. In the academic perspective, with the continuous deepening of scholars' research on organizational resilience, the influencing factors of organizational resilience are being enriched and improved. Most of the previous scholars' studies on the antecedent variables of organizational resilience have focused on the organizational level, and the relationship between the individual level, especially employees, and organizational resilience has yet to be further explored, and there is a large theoretical gap in the study of employee pay equity as an explanatory variable. This paper will put forward reasonable hypotheses on the theoretical basis of existing studies, reveal the relationship between employee pay equity and organizational resilience through empirical analysis, and introduce

market competition as a moderating variable on the basis of which to further enrich the influence mechanism of organizational resilience, and provide reference for the research of subsequent scholars.

From a practical point of view, in recent years, the frequent occurrence of adversity events such as "black swan" and "grey rhino" has brought great challenges to the survival and development of enterprises, and the enhancement of organizational resilience has become more and more important. This paper analyzes the relationship between pay equity and organizational resilience from the perspectives of internal pay gap and external pay gap, and puts forward reasonable management decision optimization suggestions and policy recommendations. It helps managers to understand the mechanism of pay gap on organizational resilience more deeply, and optimize the current pay system and reasonably distribute the pay according to the conclusions of this study, so as to mobilize the enthusiasm and creativity of employees, actively improve the level of organizational resilience, and help enterprises to make timely adjustments in the crisis, quickly recover, and even grow against the trend.

2. Literature

2.1. Organizational Resilience

The word resilience is derived from the Latin word *resilire*, meaning to bounce back, and was first used in the field of physics to denote the ability of a material to regain its original shape and properties after being subjected to an external force. The concept of resilience is widely used in physics, ecology, psychology and other fields. It was not until 1982 that Meyer introduced it into the field of management and proposed the concept of organizational resilience for the first time, and since then more and more scholars have joined in the study of organizational resilience. In the context of the current VUCA environment, organizations are facing more and more adversity events, even large enterprises with huge resources will also suffer huge losses, so the study of organizational resilience has great theoretical and practical significance. However, there is no consensus about the concept of organizational resilience, all these research streams have developed their own definitions, conceptualizations, and measures of resilience, and the interpretation of organizational resilience by past scholars can be divided into the following three different points of view:

The first view interprets the concept of organizational resilience from the perspective of prevention. It is believed that organizational resilience refers to the ability of an organization to predict a crisis in time before it occurs and to quickly adjust the organization's resources to cope with the onset of adversity, helping the organization to avoid the impact of adverse events. For example, Mallak (1998) argues that organizational resilience refers to an organization's ability to quickly and effectively design and implement proactive adjustment programs to minimize the organization's response to the onset of an emergency. Xiu'e Zhang (2021) argues that anticipatory capacity is particularly important for Chinese firms to improve organizational resilience.

The second view explains the concept of organizational resilience from the perspective of maintenance and recovery. Organizational resilience is considered to be the ability of an organization to actively adjust to adversity when faced with a crisis and restore the organization to its previous level of performance in the process. Robert (2010) defines organizational resilience as "a firm's capacity to maintain or restore an acceptable level of functioning despite perturbations or failures". Stolker (2008) holds that organizational resilience refers to the ability of a firm to respond quickly to disruptions and recover from them. Kahn and Barton (2018) argue that a resilient organization is able to maintain or improve its own operations.

The third view is that organizational resilience not only has a recovery function, but also helps firms to grow against the odds in a crisis. This view emphasizes both the ability of organizations to adapt to changes in the environment through innovation and the identification of new opportunities, i.e., the ability of organizations to take advantage of change and even turn adverse conditions into opportunities for learning and innovation in order to make their own development sustainable.

McManus et al. and Seville argue that organizational resilience enables organizations to see opportunities in the most difficult situations and thus to be able to grow in the face of adversity. Wildavsky (1988) viewed organizational resilience as the ability of an organization to cope with and recover from unexpected crises.

With the continuous deepening of related research, there are also scholars who explain the connotation of organizational resilience from a broader perspective, such as Barasa et al. (2018), who synthesized the viewpoints of prevention and maintenance, and argued that organizational resilience includes both the organization's planning and preparation for future crises, and the organization's adaptive capacity to long-term stresses and unexpected crises. Zhang Xiu'e (2021) argues that organizational resilience is the ability of an organization to anticipate unexpected events, proactively accept new risks and threats, and creatively develop responses to achieve growth against the odds. Idayanti (2012) argues that organizational resilience not only demonstrates the ability to survive from any external predicament, but also the ability to adapt and learn. Wendong Lv et al. (2019) argued that organizational resilience is the ability of a firm to achieve high growth and low financial volatility over time.

In the study of organizational resilience, Tierney (2003) argues that organizational resilience can be measured by four dimensions: robustness, redundancy, resource adequacy, and agility; Kantur (2015) suggests that organizational resilience can be classified into robustness, agility, and integrity; and Anders Richtnér (2014) argues that there are four capabilities that can help to improve organizational resilience which are structural resources, cognitive resources, relational resources, and emotional resources, especially highlight the importance of focusing on structural, cognitive and emotional resource; Sutcliffe & Vogus argue that organizational resilience is a cross-level self-enhancing capability that can be influenced at the individual, team, and organizational levels. The individual level includes factors such as leaders' personal characteristics, past experiences, leadership abilities, employee cognitive abilities, and employees' individual resilience. For example, Liang, Fu, and Linlin Cao (2021) concluded that there is a positive correlation between individual resilience and organizational resilience. Lengnick (2011) summarized six specific employee contributions to organizational resilience, which include: expertise, opportunism, creativity, decisiveness in spite of uncertainty, questioning of basic assumptions, and conceptualizing solutions that are novel and appropriate. The team level includes team cohesion, compatibility among teams, and good departmental relationships. Kahn and Barton (2018) argue that good departmental relationships and compatibility among teams help organizational members to quickly adjust emotionally and relationally in the face of crisis, improving team cohesion and thus resilience. Organizational level includes the size of the organization, resources, strategy, etc. Jiao Yunyan et al. (2022) found that the influence mechanism of organizational resilience is a concurrent mechanism of a combination of multiple conditions through a study of small and medium-sized enterprises (SMEs) in China, which covers the five conditions of technological innovation, age of the firm, organizational assets, government support, and business aggregation, and none of which is effective in forming organizational resilience. Wu, Dingyu, and Hu, Dingguo (2023) argue that enterprise digital transformation can improve organizational resilience by promoting dual innovation, improving market competitiveness, and strengthening knowledge management.

2.2. Pay Equity

Pay equity refers not only to the fairness of the remuneration system itself, but also to the employees' perception of pay equity. Employees are not only concerned about the absolute value of the reward they receive, but also about the relative value of their reward, i.e., by comparing themselves with others and with their past selves, so as to determine whether the reward they receive is reasonable or not. There are fewer existing studies that directly focus on pay equity as the object of study, and more on the pay gap between a certain two groups (Yu Fan, 2022). It can be categorized into internal pay gap and external pay gap according to the comparison object chosen by employees. The internal pay gap of employees refers to the pay gap between employees and their executives within the

organization. The external pay gap of employees refers to the pay gap between employees and their similar employees in other companies in the same industry. A reasonable pay gap is an effective means to ensure that employees work hard and promote organizational performance (Jun Lu, 2014). With the growing importance of employee pay equity to business management, research on employee pay equity has become increasingly rich. From the viewpoint of the economic consequences of pay equity for enterprises, existing research on employee pay equity mainly focuses on the relationship between pay equity and organizational performance. And regarding the direction of pay equity's impact on organizational performance, there exist two distinct research results, namely equity theory and tournament theory.

Tournament theory was proposed by Lazear et al. in 1981, which believes that the higher a person's position is, the higher the corresponding level of compensation, so the basic level employees will increase their work commitment in order to get a higher pay to get a chance of appreciation. Proponents of the theory believe that there is a competitive relationship between employees and that the pay gap between executives and employees constitutes an incentive for employees to work hard, and that the greater the pay gap, the greater the degree of motivation employees receive, and that employees tend to increase their self-motivation and performance in order to achieve higher reward and to perform better in order to obtain a higher position. (Luo Rui, 2015) For example, Heyman and Fredrick (2005) supported the tournament theory by confirming through empirical analysis that the widening of the pay gap can improve organizational performance. Lin et al. (2003) argued that the positive incentive effect of tournament theory is greater than the negative effect of unfairness and refusal to cooperate in Chinese listed companies. However, this kind of pay gap is not as wide as it could be, and as the pay gap exceeds a certain level, it will inevitably bring adverse effects to the enterprise. Unreasonable and excessive pay gap may trigger employees' negative emotions, affecting their work motivation and teamwork spirit, thus hindering the improvement of corporate performance. Luo Rui (2015) believes that if the internal pay gap of employees is too large, it will cause employees to lose the confidence of enterprising, and also produce the negative thoughts of "thinking that no matter how hard they work, they can't make up for the gap between them and the executives", which will undermine the atmosphere of unity and cooperation within the organization, resulting in the failure of the superior orders to be carried out effectively, and distrust among the members of the organization, which are serious impediments to the normal operation of the company, and can may lead to the internal chaos. In addition, Zhang, Chang Zheng (2016) argues that the wider the pay gap, the more arrogant and authoritarian managers will become, which likewise also represents a distortion of the social value system.

Equity theory, also known as social comparison theory, was proposed by Adams in 1965. Scholars who support equity theory oppose excessive pay gaps, which reduce employees' input when they experience unfairness, and believe that a sense of fairness in employees' pay improves employees' dedication, which in turn is rewarded with positive work attitudes and efficiency, i.e., a sense of fairness in pay enhances organizational performance. For example, the reduction of the pay gap can improve cohesion (David, 1991) Li Ying (2019) conducted a study on small and medium-sized manufacturing enterprises in China and found that there is a positive effect between the degree of pay equity within the staff and technological innovation performance.

In addition, studies on the economic consequences of the executive pay gap include: the level of innovation of the company, the company's risk tolerance, and so on. For example, Kong Dongmin (2017) argues that tournament theory dominates the effect of pay gap on innovation and that pay gap improves innovation. Xie Weimin (2017) came to the same conclusion after empirical analysis of Chinese listed companies, which concluded that appropriately widening the pay gap between executives and employees, can motivate executives and employees to work hard and promote corporate innovation. However, it is also necessary to prevent the sense of unfairness brought to employees by the excessive pay gap between executives and employees. Danlu Bu and Xiaodan Bai (2013) argue that increasing employee reward and reducing the pay gap between employees and executives can reduce the company's future turnover rate. Tong Aiqin (2020) concluded through

empirical research that the larger the pay gap between executives and employees, the lower the level of risk-taking of the firm.

2.3. Literature Review

Synthesizing the existing literature, although the academic interest in organizational resilience and pay equity has steadily grown in recent years, there are still the following shortcomings: first, due to scholars have interpreted the concept of organizational resilience from different perspectives, resulting in the diversity of organizational resilience measurement. Most of the previous studies use direct measurement, and the content of measurement scales designed based on different perspectives varies, which to a certain extent hinders the development of empirical research on organizational resilience; second, the excavation of antecedents of organizational resilience mostly focuses on the organizational level, and the research focusing on the relationship between the individual level of employees, managers, etc. and organizational resilience is still open to new explorations; third, in previous research on pay equity, domestic and foreign scholars have focused on the pay gap between different levels, such as the pay gap between executives and employees or the pay gap between CEOs and other executives, etc., and there are fewer researches on the pay gap between employees of the same level but different enterprises, which means that the perspective of external pay equity has been neglected.

In view of the fact that when employees compare their own pay with others, they will choose multiple comparators to judge whether their pay levels are fair or not, and change their work attitudes and behaviors such as motivation and creativity according to the degree of fairness, which will have an impact on organizational resilience. Therefore, this paper will take employee pay equity as an entry point, and elaborate the impact of pay equity on organizational resilience from two perspectives of internal pay gap and external pay gap of employees respectively, in order to expect to enrich the research perspectives of the literature related to pay equity and organizational resilience, and provide managerial insights on how enterprises can optimize the pay system and improve organizational resilience.

3. Theory and Research Hypothesis

In the past two decades, with the rapid development of China's economy, the inequality of the remuneration system within the enterprise has been increasing, which has triggered a great deal of attention from scholars (Zhang, 2016). The competitive relationship proposed by the tournament theory exists more within the enterprise, i.e., it acts on the internal compensation of employees. Liu, Chun and Sun, Liang (2010) showed that in state-owned enterprises, the internal pay gap of executives promotes the increase of corporate performance. The existence of the pay gap between executives and employees can not only stimulate executives to work hard in order to maintain current pay levels, but also motivate rank-and-file employees to work harder in pursuit of higher compensation, if the pay gap between executives and employees is small and employees do not have a clear goal, the enterprise management system is more loose, then the phenomenon of egalitarianism will be generated, which makes the employees' work fall into the negative emotions and negative impact, business management will be greatly hindered. Therefore, only by matching the labor paid with the harvest, making reasonable distribution according to different levels, and creating a reasonable gap in income levels, can we call it truly fair (Luo Rui, 2015). It can be seen that the incentive effect produced by the theory of tournaments within the enterprise occupies a dominant position, and a certain internal pay gap among employees will mobilize the enthusiasm of employees, stimulate their creativity, promote the spirit of teamwork, improve team cohesion, and then affect the organizational resilience. Therefore, we propose the following hypothesis:

H1: internal pay gap positively affects organizational resilience.

Not only is there a pay gap within the enterprise, but there is also a more obvious pay gap between different enterprises in the same industry. In this context, employees will compare their own pay level

with the average pay level of their industry. Compared with executives, ordinary employees are more sensitive to the external pay gap and have a stronger desire to improve pay competitiveness (Peng Zhen, 2020). A higher external pay gap is conducive to reducing the turnover rate and safeguarding the stability of human resources. Wang Xinlan (2023) holds that higher employee external pay gap can improve employee loyalty, execute corporate risk decisions more efficiently and accurately, generate risk-sharing mechanism with management, and then increase corporate risk tolerance. Luo Rui (2015) through a survey of listed companies in China concluded that the employee's external pay equity is positively related to organizational performance, the employee through the comparison of the salary received by employees of other enterprises with similar positions, if the employee's salary is higher than the other employees of other enterprises with similar positions, he will think that he is in a fair situation, his own efforts have been affirmed, and it will also improve the evaluation of the enterprise's remuneration package. Thus, they will work hard for higher income, which will improve the performance of the enterprise and realize long-term development. On the contrary, if the compensation received by the employees of the enterprise is much lower than that of other employees, the employees will have the idea that they are in an unfair situation, and their previous efforts have not been treated reasonably, which reduces their enthusiasm and confidence in the enterprise, thus generating bad emotions and hindering the improvement of organizational performance (Luo Rui, 2015). It can be seen that the existence of the external pay gap will have a motivational effect on employees, mobilize employee motivation and inhibit bad emotions, so that employees can give full play to creativity in the face of adversity, improve problem-solving ability, and more unity among employees, so that organizational resilience is improved. Accordingly, this paper proposes hypothesis 2:

H2: external pay gap of employees positively affects organizational resilience

However, the impact of pay equity on organizational resilience will be changed by the external environment, with the deepening of China's marketization, enterprises as the main body of market activities are facing increasing market competition. Intense market competition has made information more transparent, so that enable business stakeholders to better understand internal operations, which is conducive to attracting external investors and improving corporate performance. Managers adjust their corporate strategies and improve the quality of decision-making through relevant information in the industry. Gao Zihan (2023) believes that product market competition will motivate managers to strengthen the rational allocation of internal resources and operational efficiency, reduce the tendency of managers to make extreme risky decisions, and improve the efficiency of corporate innovation. Hao Dongyang (2016) believes that the pay gap within the enterprise will be affected by the degree of market competition. In the state of a lower degree of market competition, employees are not sensitive to the pay gap and lack of confidence and motivation as it should be (Fu Chip et al., 2020). In a more competitive market, corporate information is more transparent, employees can more clearly understand what level their current pay level is compared with others, and the more convenient the access to information in the industry, the greater the incentive effect of the pay gap on performance (Liu Chun and Sun Liang, 2010). Some studies have proved that product market competition is an important factor affecting the internal pay gap. For example, in an environment of intense product market competition, a larger internal pay gap has a stronger incentive effect and thus improves firm performance (Wang, Chengcheng, 2020). Sheng Mingquan, Zhang Yannan et al. (2019) find that an increase in executive pay gap can promote total factor productivity to a certain extent, while market competition strengthens this incentive effect. Product market competition is considered one of the most powerful external governance tools used to incentivize managers to operate in accordance with the goal of maximizing firm value, and intense market competition can accommodate a larger pay gap (Lingjing Zhong, 2022). In addition, the existence of market competition can alleviate the principal-agent problem of the organization and reduce the agency cost, so that the incentive effect of the external pay gap can be effectively played, and at the same time, the market competition also alleviates the internal contradiction of the enterprise, so that the negative effect of the internal pay gap can be mitigated (Zhai Shuping et al., 2017) It can be seen that the market competition on the

internal pay gap of the employees and the external pay gap has a certain impact, accordingly the following hypothesis is proposed.

H3a: Market competition positively moderates the relationship between internal employee pay gap and organizational resilience

H3b: Market competition positively moderates the relationship between employees' external pay gap and organizational resilience

4. Methodology

4.1. Research Design

In order to verify the mechanism of the role between pay equity and organizational resilience in the face of crisis in China's enterprises, this paper takes the period of COVID-19 pandemic as the background of the study, and according to the official announcement of the time point, selects the listed non-financial companies in Shanghai and Shenzhen in the period of 2019-2021 as the research sample, and screens the sample according to the following principles: (1) excluding extreme values; (2) excluding listed companies of the financial and insurance industry; (3) excluding new listed companies; (4) excluding listed companies with incomplete announcements; (5) excluding ST and ST*. The data of listed companies involved in this paper are obtained from CSMAR (China Stock Market & Accounting Research Database) database and WIND database, and Stata17.0 software is used for data processing and regression analysis in the empirical test.

4.2. Explanatory Variable

Organizational Resilience. Aiming to study the level of organizational resilience in China's enterprises under the impact of the COVID-19 pandemic, this paper measures organizational resilience from the resistance ability of the organization facing the crisis. According to the current study, there is a lack of more authoritative methods on the measurement of organizational resilience, and the existing literature is divided into two main categories of measurement. One is the use of publicly available financial indicators. The advantage of this method is that the evaluation is more objective and fairer, the data is easy to obtain, the disadvantage is that the measurement of organizational resilience is more one-sided. The second is through the construction of scales or questionnaires. The advantages of this method lie in the comprehensiveness and comprehensiveness of the measurement, and the disadvantages lie in the different contents of the measurement scales designed based on different perspectives, and the strong subjectivity, and so on. In this paper, the first method of measurement is adopted, drawing on Liu, Bin (2022), to measure organizational resilience in terms of cumulative sales revenue growth over a three-year period.

4.3. Independent Variable

In this paper, internal employee pays gap and external employee pay gap are used to measure employee pay equity respectively. This paper mainly relies on the research methods of Faleye et al. (2013), Banker et al. (2016), and defines the internal pay gap as the ratio of the average pay of executives to the average pay of employees, which is taken as the natural logarithm for better measurement. The external pay gap is defined as the ratio of average employee pay to the average pay in the same industry.

$$\text{Internal Pay Gap (Igap)} = \text{Ln} (\text{Average Executive Compensation} / \text{Average Employee Compensation}) \quad (1)$$

$$\text{Average Executive Compensation} = \text{total compensation of compensated directors and supervisors} / \text{number of compensated directors and supervisors} \quad (2)$$

$$\text{Average Employee Compensation} = (\text{compensation payable to employees}) / (\text{number of employees} - \text{number of executives}) \quad (3)$$

$$\text{External Pay Gap (Egap)} = \text{Average Employee Compensation} / \text{Average Compensation in the Industry} \quad (4)$$

4.4. Control Variable

Referring to the existing literature studies, the control variables selected in this paper are: firm size, listing age, SOE, Tobin's Q, lev, Mshare, INV, Asset Growth, Mfee, Occupy, Intangible. Expense Ratio (Mfee), Large Shareholder Capital Utilization (Occupy), Intangible Asset Ratio (Intangible).

5. Findings

5.1. Descriptive Analysis

According to the descriptive statistics in Table 1, after excluding some data, 9506 sample observations were finally obtained, the minimum value of OR was -10609.09, the maximum value was 10352.82, and the mean value was 34.12; the minimum value of Igap was -0.03, the maximum value was 12.12, and the mean value was 3.35; the minimum value of Egap was -0.94, the maximum value was 42.09 with a mean value of 2.06, indicating that there are large differences between different enterprises.

Table 1. Summary Statistics

VarName	Obs	Mean	SD	Min	Median	Max
OR	9506	34.12	291.504	-10609.09	4.77	10352.82
Igap	9508	3.35	0.965	0.03	3.29	12.12
Egap	9508	2.06	2.189	-0.94	1.50	42.09
HHI	9508	0.90	0.107	0.00	0.93	0.98
size	9508	22.46	1.345	17.95	22.26	28.64
ListAge	9508	2.31	0.728	0.00	2.40	3.47
SOE	9508	0.33	0.470	0.00	0.00	1.00
TobinQ	9508	2.09	1.682	0.64	1.61	29.17
lev	9508	0.43	0.193	0.01	0.42	1.00
Mshare	9508	13.17	18.518	0.00	1.41	89.99
INV	9508	0.13	0.120	0.00	0.11	0.91
AssetGrowth	9508	0.15	1.037	-0.93	0.08	77.70
Mfee	9508	0.07	0.069	-0.76	0.06	1.40
Occupy	9508	0.01	0.027	0.00	0.01	0.44
Intangible	9508	0.05	0.062	0.00	0.03	0.94

5.2. Correlation Analysis

Before the regression analysis, Pearson correlation analysis was conducted on the variables, and the results of the analysis are shown in Table 2: the internal pay gap (Igap) of employees is significantly and positively related to organizational resilience, and the external pay gap (Egap) of employees is significantly and positively related to organizational resilience, and the expected hypotheses have been preliminarily verified.

Table 2. Correlation Coefficient

	OR	Igap	Egap	HHI	size	ListAge	SOE	TobinQ	lev	Mshare	INV	AssetGrowth	Mfee	Occupy	Intangible
OR	1														
Igap	0.05***	1													
Egap	0.05***	-0.47***	1												
HHI	-0.03***	0.04***	0.01	1											
size	0.30***	0.16***	0.12***	-0.09***	1										
ListAge	0.09***	0.03***	0.05***	-0.04***	0.40***	1									
SOE	0.09***	-0.05***	0.05***	-0.11***	0.37***	0.45***	1								
TobinQ	-0.04***	-0.05***	0.09***	0.06***	-0.28***	-0.12***	-0.16***	1							
lev	0.13***	0.08***	-0.01	-0.06***	0.47***	0.25***	0.23***	-0.26***	1						
Mshare	-0.07***	-0.01	0.06***	0.08***	-0.34***	0.54***	0.45***	0.06***	0.23***	1					
INV	0.06***	0.05***	-0.01	0.07***	0.10***	0.10***	0.04***	-0.04***	0.23***	-0.03***	1				
AssetGrowth	0.06***	-0.03***	0.16***	0.00	0.06***	-0.04***	0.00	0.01	0.05***	0.01	-0.00	1			
Mfee	-0.09***	0.11***	-0.03**	0.08***	-0.28***	0.03***	0.05***	0.10***	0.18***	-0.02	0.14***	-0.06***	1		
Occupy	0.05***	-0.00	-0.02**	-0.04***	0.07***	0.11***	0.03***	-0.06***	0.19***	-0.08***	0.06***	-0.02*	0.07***	1	
Intangible	-0.01	-0.01	0.01	-0.05***	0.08***	0.05***	0.09***	0.07***	0.04***	-0.06***	0.18***	-0.01	0.06***	0.05***	1

5.3. Regression Analysis

The results of regression analysis are shown in table3. According to the regression results of model 1 in the table, it can be seen that: there is a significant positive effect of internal pay gap on organizational resilience ($\beta = 28.33, p < 0.01$), that is to say, the enhancement of internal pay gap of the employees can improve the organizational resilience, and the hypothesis H1 is verified; there is a significant positive effect of external pay gap of the employees on organizational resilience ($\beta = 12.76, p < 0.01$), that is to say, the enhancement of external pay gap of the employees can improve the organizational resilience, and the hypothesis H2 is verified. The enhancement of external pay gap can improve organizational resilience, hypothesis H2 is verified. Add the cross-multiplier of internal employee pay gap and market competition, the cross-multiplier of external employee pay gap and market competition and control variables in model 2, the regression results show that: the coefficient of the cross-multiplier of internal employee pay gap and market competition is significantly negative ($\beta = -70.01, p < 0.01$), which means that market competition enhances the link between internal employee pay gap and organizational resilience, hypothesis H2 is verified. Hypothesis H3a can be verified; the coefficient of the cross-multiplier term of the external pay gap of employees and market competition is significantly negative ($\beta = -27.20, p < 0.05$), which indicates that market competition enhances the link between the external pay gap of employees and organizational resilience, and Hypothesis H3b can be verified.

6. Conclusion and Recommendations

6.1. Conclusion

Due to the increasingly turbulent business environment, both academics and practitioners have paid much attention to organizational resilience, exploring how to help enterprises cope successfully with the impacts of environmental changes.

Table 3. OLS regression results

	(1)	(2)	(3)
	model 1	model 2	model 3
Igap	28.33***	62.89***	62.57**
	(8.11)	(2.58)	(2.57)
Egap	12.76***	25.31**	25.55**
	(8.30)	(2.12)	(2.14)
HHI	-98.60***	250.51**	249.47**
	(-3.56)	(2.45)	(2.44)
c.Igap#c.HHI		-70.01***	-69.71***
		(-2.60)	(-2.59)
c.Egap#c.HHI		-27.20**	-27.35**
		(-2.05)	(-2.06)
size		73.50***	73.66***
		(25.97)	(26.03)
ListAge		-8.01	-7.42
		(-1.60)	(-1.48)
SOE		-0.60	-0.92
		(-0.08)	(-0.13)
TobinQ		7.06***	7.42***
		(3.92)	(4.09)
lev		-38.55**	-37.42**
		(-2.19)	(-2.12)
Mshare		0.49**	0.49**
		(2.54)	(2.55)
INV		82.77***	80.44***
		(3.30)	(3.21)
AssetGrowth		8.73***	8.66***
		(3.11)	(3.08)
Mfee		-10.28	-9.76
		(-0.23)	(-0.22)
Occupy		416.39***	406.54***
		(3.85)	(3.75)
Intangible		-89.54*	-90.88*
		(-1.89)	(-1.91)
2019.year			0.00
			(.)
2020.year			-17.20**
			(-2.44)
2021.year			-9.75
			(-1.38)
_cons	1.83	-1842.14***	-1837.85***
	(0.07)	(-16.28)	(-16.24)
N	9506	9506	9506
R ²	0.01	0.10	0.10
Adj. R ²	0.01	0.10	0.10

This paper reviews the existing literature on organizational resilience, sorts through the research results of scholars on the factors affecting organizational resilience, and finds that the impact of the individual level on organizational resilience needs to be further studied, and there is a large theoretical gap in the research on the perspective of the impact of employee pay equity on organizational resilience. Based on the current theoretical gaps, this paper proposes reasonable hypotheses to explore the impact on organizational resilience from the perspectives of internal employee pay equity and external employee pay equity using the data of listed non-financial companies in China from 2019-2021, and introduces market competition as a moderating variable for further research.

The results of this study show that: pay equity is positively associated with organizational resilience, where internal employee pay gap improves organizational resilience; external employee pay gap improves organizational resilience; market competition positively moderates the relationship between internal employee pay and organizational resilience; and market competition positively moderates the relationship between external employee pay and organizational resilience. The findings of statistical analysis supported the main hypotheses formulated.

The theoretical contributions of this paper include the following aspects: most of the previous scholars' studies on the antecedent variables of organizational resilience focus on the organizational level, and given that there is a large theoretical gap in the study of the relationship between pay equity and organizational resilience, this paper takes Chinese listed non-financial companies as a sample for the study, makes up for the lack of research on the role mechanism between the two, enriches the relevant studies on the influencing factors of organizational resilience from the individual level, and analyzes the relationship between pay equity and organizational resilience, broadening the theoretical explanation of enterprises to improve organizational resilience. In addition, the study of organizational resilience cannot be separated from the specific context, this paper explores the influencing factors of organizational resilience in the era of VUCA, specifically analyzes the impact of employee pay equity on organizational resilience in Chinese listed non-financial companies during the COVID-19 pandemic, and analyzes the moderating effect of market competition on the relationship between pay equity and organizational resilience, which will provide a reference for the subsequent scholars' research. In previous research on pay equity, domestic and foreign scholars' perspectives on pay equity have focused more on the pay gap between different ranks. Exploring the impact of employee pay equity on organizational resilience based on two perspectives: the internal pay gap of employees and the external pay gap of employees makes the understanding of employee pay equity more comprehensive, and at the same time, broadens the research on the results of pay equity. In addition, the results of this paper show that within a company, the larger the pay gap between executives and employees the more organizational resilience can be improved, which supports the tournament theory, while when comparing with similar employees in the same industry, the larger the external pay gap of employees the more organizational resilience can be improved, which supports the equity theory. It enriches the exploration of tournament theory and equity theory and provides reference for related pay equity research.

However, this study still has some shortcomings, as follows: the samples selected in this paper are the public data of listed non-financial companies in China between 2019 and 2021, and whether the listed non-financial companies can represent all companies needs to be further tested. In addition, this study only analyzes listed companies in China. Taking into account cultural differences, different countries have different sense of justice, so the degree of influence of pay equity on employee incentives is also different; this paper argues that the expansion of employees' internal compensation can improve organizational resilience, which supports the tournament theory. However, it does not preclude that too large a pay gap can have certain negative effects; this paper measures organizational resilience only from the perspective of recovery, which is a multidimensional concept. The impact of pay equity on other dimensions of organizational resilience needs to be further explored.

6.2. Recommendations

Based on the findings of this paper, the following recommendations are given:

First, enterprises should not only consider the overall level within the industry when formulating the remuneration system, but also focus on the remuneration gap between different levels within the enterprise. Ensure that employees' salaries are competitive in the industry, and that there is a certain gap between them and upper management within the enterprise, so as to improve employees' loyalty to the enterprise, fully mobilize employees' enthusiasm and creativity, and promote cooperation between different members of the staff, so as to enable the enterprise to better cope with the occurrence of crises.

Second, managers should pay increasingly more attention to organizational resilience. Organizational resilience is a fundamental ability that is directed toward organizational advancement (Duchek,2020), however, organizational resilience is seldom included in the scope of management in the realistic enterprise management. Enterprises should view crises as a learning opportunity for all members of the organization, focusing on improving the expertise, initiative and problem-solving skills of employees, so that the enterprise can develop sustainably and stably in a changing environment. The importance of adapting to the environment can be emphasized within the organization, a climate of continuous learning can be fostered in the organization, a sense of crisis can be promoted among employees, and align employees' personal goals with the organization's goals, and give full play to their individual strengths.

Third, it is important to maintain appropriate competition. Enterprises need a certain amount of external pressure to generate internal motivation for continuous innovation. Therefore, the Government should maintain a certain level of activity in the market. Specifically, they can take the following measures: formulate and enforce strong antitrust laws and regulations to prevent monopolistic behavior and unfair competition in the market, and ensure the existence of multiple competing firms in the market; and require firms to disclose information in a timely manner to improve market transparency. By means of information disclosure and financial auditing, increase market participants' understanding of the market situation and their ability to make judgments, and reduce market barriers brought about by information asymmetry; establish sound regulatory agencies to supervise market behavior, prevent and combat market manipulation and unfair price behavior, etc., and maintain a fair competitive environment in the market; lower the market access threshold, simplify the relevant approval procedures, and encourage new entrants to enter the market, increase the degree of market competition and promote innovation and development; attracting foreign investment and bringing in foreign competition to raise the level of international competition in the market and promote local enterprises to improve their competitiveness.

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