

Factors Influencing Employee Engagement: A Case Study of Teachers in Privately-Run Higher Institutions in Fujian, China

Li Yanting ¹, Thitinant Wareewanich ^{2,*}

Abstract:

This study investigates the complex interplay among organizational justice, psychological contract fulfillment, and employee engagement within teachers in privately-run higher institutions in Fujian, China. Aligned with China's 14th Five-Year Plan, emphasizing inclusive urbanization and organizational justice, the research explores the relationships among procedural justice, distributive justice, interpersonal justice, informational justice, psychological contract fulfillment, and employee engagement. Covering 36 institutions, including 16 undergraduate and 20 junior college institutions across five cities in Fujian, the study distributed 600 questionnaires using Taro Yamane's sampling technique, reaching a sample size of at least 390. Employing advanced statistical software, the research conducted a direct effect test, revealing positive influences of procedural, distributive, interpersonal, and informational justice on psychological contract fulfillment and subsequently on employee engagement. Path analysis identified specific dimensions within each justice aspect significant for teachers. Notably, information accuracy, recognition of individual contributions, dignity, and tailored communication emerged as crucial factors. The study also examined the mediating role of psychological contract fulfillment, revealing its significant positive and indirect effects on employee engagement. In conclusion, this research provides actionable insights for organizational management, emphasizing fairness factors' pivotal role in employee engagement within privately-run higher institutions in Fujian, China. The highlighted dimensions offer a unique perspective for a

^{1,2} Chakrabongse Bhuvanarth International Institute for Interdisciplinary Studies, Rajamangala University of Technology

Tawan-ok, Bangkok, 10310, Thailand

comprehensive understanding of organizational dynamics, guiding success strategies

Keywords: *Organizational Justice, Psychological Contract Fulfillment, Employee Engagement, Privately-Run Higher Institutions.*

1. Introduction

1.1 Research Background

This study investigates organizational justice, psychological contract fulfillment, and employee engagement among teachers in privately-run higher institutions in Fujian, China. The introduction provides the research background and scope, aligning with China's 14th Five-Year Plan and emphasizing organizational justice for improved living standards. The study explores the relationships among procedural justice, distributive justice, interpersonal justice, informational justice, psychological contract fulfillment, and employee engagement. The research scope covers 36 privately-run higher institutions in Fujian, using Taro Yamane's sampling technique to distribute 600 questionnaires among 15,336 teachers. Employing advanced statistical software, the study reveals positive influences of justice dimensions on psychological contract fulfillment and employee engagement.

The study emphasizes the critical role of fairness in employee engagement, offering actionable insights for organizational management in privately-run higher institutions in Fujian, China. The concept of justice has evolved from Equity Theory to encompass distributive, procedural, interpersonal, and informational justice. In China, organizational justice is crucial amid rapid developments in private higher education. The study addresses issues faced by teachers, focusing on justice perceptions in the distribution of resources, decision-making processes, and interpersonal interactions. The study identifies dimensions such as procedural justice, distributive justice, interpersonal justice, and informational justice. As private higher education develops in China, issues of organizational justice, psychological contract fulfillment, and employee engagement impact the fate of these institutions. Goffman (1961) proposed the concept of employee engagement, highlighting the different perspectives individuals have regarding their attachment and detachment from their roles. Concerning "employee engagement," Kahn (1990) provided the initial explanation of the concept. Soane et al. (2012) integrated previous research theories and introduced a new model encompassing role focus, activation, and positive emotion. Xiao and Duan (2014) identified dimensions for measuring employee engagement, including

proactivity, loyalty, effectiveness, identification, and commitment. Xie and Fu (2015) suggested that companies should gain a deeper understanding of employees' needs and expectations. They advocated for the establishment of a set of humane and democratic rules and systems, fostering a positive cultural atmosphere within the organization. Providing employees with challenging and fulfilling tasks, and integrating human resource management throughout the entire process, was emphasized as a means to improve employees' mental well-being.

The study emphasizes the importance of continuously reforming and innovating, team building for teachers, and scientific management for the development of first-class institutions. Existing literature highlights the challenges faced by teachers, linking fair treatment to work enthusiasm. However, justice perceptions among teachers in higher educational institutions remain low, necessitating exploration of improvements. Studies reveal issues of unfair work performance distribution, emphasizing the need for optimized performance distribution systems to enhance employee engagement and justice perceptions. Work-family conflict negatively influences justice perceptions among teachers. Employee engagement is considered a psychological identification of situational characteristics, with resources at work playing a pivotal role in improving engagement. Fujian ranks last in terms of teacher engagement among 34 regions, indicating a need for targeted interventions to improve the overall work environment for teachers in privately-run higher institutions. In conclusion, this research contributes theoretical and practical recommendations for the management of teachers in privately-run higher institutions, emphasizing the significance of justice dimensions in fostering employee engagement. The findings provide valuable insights for organizational strategies, fostering a more comprehensive understanding of organizational dynamics in the context of privately-run higher education in Fujian, China.

1.2 Research Questions

- 1) What is the relationship between Procedural Justice (PJE), Distributive Justice (DJE), Interpersonal Justice (ITJ), Informational Justice (IFJ), and psychological contract fulfillment (PCF) among teachers in privately-run higher institutions in Fujian, China?
- 2) What is the relationship between Procedural Justice (PJE), Distributive Justice (DJE), Interpersonal Justice (ITJ), Informational Justice (IFJ), and employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China?
- 3) What is the relationship between psychological contract fulfillment (PCF) and employee engagement (EET) among teachers in privately-run higher institutions in

Fujian, China?

- 4) Whether the psychological contract fulfillment (PCF) mediates Procedural Justice (PJE), Distributive Justice (DJE), Interpersonal Justice (ITJ), Informational Justice (IFJ), and employee engagement (EE) among teachers in privately-run higher institutions in Fujian, China?

1.3 Research Objectives

- 1) To examine the relationship between Procedural Justice (PJE), Distributive Justice (DJE), Interpersonal Justice (ITJ), Informational Justice (IFJ), and psychological contract fulfillment (PCF) among teachers in privately-run higher institutions in Fujian, China.
- 2) To examine the relationship between Procedural Justice (PJE), Distributive Justice (DJE), Interpersonal Justice (ITJ), Informational Justice (IFJ), and employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China.
- 3) To examine the relationship between psychological contract fulfillment (PCF) and employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China.
- 4) To investigate the mediating effect of psychological contract fulfillment (PCF) between Procedural Justice (PJE), Distributive Justice (DJE), Interpersonal Justice (ITJ), Informational Justice (IFJ), and employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China.

1.4 Research Scope

The research is specifically focused on Fujian, China, encompassing a total of 36 privately-run higher institutions, among which 16 are undergraduate institutions and 20 are junior college institutions. This comprehensive study spans across five key cities in the region, namely Fuzhou, Xiamen, Quanzhou, Zhangzhou, and Nanping. The geographic distribution ensures a diverse representation of privately-run higher education institutions within the province. As per the latest data from the official website of Xiamen Education Bureau (2023), the list of privately-run higher institutions in the region forms the foundational basis for the research scope, providing a detailed insight into the participating institutions. This strategic selection ensures a nuanced understanding of the organizational dynamics, psychological contract fulfillment, and employee engagement among teachers in privately-run higher institutions in the specific context of Fujian, China.

Table 1 List of privately-run higher institutions in Fujian Province

No	Name of Institutions	City	Type
1	Yang-En University	Quanzhou	Degree
2	Xiamen Huaxia University	Xiamen	
3	Minnan University of Science and Technology	Quanzhou	
4	Quanzhou Vocational and Technical University	Quanzhou	
5	Minnan Science and Technology University	Quanzhou	
6	Fuzhou Technology and Business University	Fuzhou	
7	Xiamen Institute of Technology	Xiamen	
8	Yango University	Fuzhou	
9	Xiamen University Tan Kah Kee College	Fuzhou	
10	Fuzhou University Zhicheng College	Fuzhou	
11	Jimei University Chengyi College	Xiamen	
12	Concord University College Fujian Normal University	Fuzhou	
13	Fuzhou University of International Studies and Trade	Fuzhou	
14	Quanzhou University of Information Engineering	Quanzhou	
15	Fuzhou Institute of Technology	Fuzhou	
16	Jinshan college of Fujian agriculture and forestry university	Fuzhou	
17	Fujian Hwa Nan Women's College	Fuzhou	Diploma
18	Anglo-Chinese College	Fuzhou	
19	Quanzhou Textile Garment Vocational Institute	Quanzhou	
20	Quanzhou Huaguang Vocational College	Quanzhou	
21	Fujian Liming Vocational & Technical College	Fuzhou	
22	The Xiamen Academy for Performing Arts	Xiamen	
23	Xiamen Huatian International Vocation Institute	Xiamen	
24	Fuzhou Science and Technology College	Fuzhou	
25	Fuzhou software Technology Vocational College	Fuzhou	
26	Xiamen Xingcai Vocational & Technical College	Xiamen	
27	Xiamen Institute of Software Technology	Xiamen	
28	Xiamen Nanyang University	Xiamen	

29	Xiamen Donghai Institute	Xiamen
30	Zhangzhou College of Science & Technology	Zhangzhou
31	Zhangzhou Institute of Science and Engineering	Zhangzhou
32	Wuyishan Vocational College	Nanping
33	Quanzhou Ocean Institute	Quanzhou
34	Quanzhou College of Technology	Quanzhou
35	Xiamen Security Science and Technology College	Xiamen
36	Quanzhou Ocean Institute	Quanzhou

Source: Official website of Xiamen Education Bureau (2023)

2. Literature Review

2.1 Historical Overview

This research delves into the intricate dynamics of organizational justice, psychological contract fulfillment, and employee engagement among teachers in privately-run higher institutions in Fujian, China. The current stage necessitates granting teachers recognition and remuneration corresponding to their efforts for effective education. This not only fosters a sense of respect and acknowledgment but also continually enhances their work enthusiasm, leading to more effective teaching methods. Teachers' effectiveness in privately-run higher institutions is intricately linked to organizational justice, psychological contract fulfillment, and work engagement. The desire to impart knowledge and cultivate students with effective methods is contingent upon fair treatment and dedication to the institution. Organizational justice encompasses perceptions of fairness in remuneration, bonuses, promotions, and other welfare aspects. Employee engagement, on the other hand, is rooted in the teacher's recognition by the institution. Only when both aspects are perceived positively can a teacher be dedicated to their work and contribute to cultivating talents for society.

In the past, scholars have conducted comprehensive research on employee engagement. Kahn (1990) interpreted the concept of employee engagement, suggesting that highly engaged employees exhibit proactive behaviors in the organization. They can diligently and surpassingly complete organizational tasks, and both leaders and colleagues are satisfied with their efforts. Schaufeli (2008) indicated that employee engagement can be expressed through emotional commitment, where employees immerse themselves fully in their daily work, unaffected by external environmental factors. They utilize their

professional knowledge to present satisfactory work outcomes in the shortest possible time. This emotional expression is often characterized by excitement, joy, and passion, demonstrating a full and sustained work mood, reducing the likelihood of employees considering resignation.

Gallup (2007) conducted research and found a direct relationship between employee engagement and the work environment created by the organization. Companies hope that employees can concentrate on their work, effectively creating benefits for the organization. Therefore, highly engaged employees willingly consider issues from the company's perspective, sacrificing personal interests to achieve organizational benefits. This contributes to the company's long-term and stable development. Employees can generally be classified into three types: those mechanically performing their jobs, those actively and enthusiastically engaging in their work, and those negligently performing their work. A high level of employee engagement creates a positive work atmosphere, encouraging employees to complete their tasks actively and enthusiastically.

Fang et al. (2010) argued that employees, through learning and practicing in their areas of expertise, acquire professional skills. When employees have a high degree of recognition for the organization's environment, systems, and development goals, they are willing to serve the company for an extended period. They will actively, proactively, and efficiently apply these skills in the process of completing organizational tasks, contributing to the organization's development. Regarding organizational factors, Zhang et al. (2005) believed that organizational fairness significantly influences employee engagement. Rothmann et al. (2013) found through research that a harmonious organizational work atmosphere, a comfortable working environment, as well as reasonable regulations and compensation systems, enhance employee engagement. Meng et al. (2015) suggested that organizational fairness has a certain impact on employee engagement, with exchange relationships between organizations playing a mediating role. Employing empirical analysis, they demonstrated that organizational fairness and value alignment positively influence employee engagement, and exchange relationships between organizations impact both dimensions.

The current challenges faced by teachers in higher educational institutions in China, such as increased pressure from research, curriculum demands, and personal life, impact their mental and working conditions negatively. Fair treatment, including distributive and procedural justice, significantly influences their enthusiasm for work. Research exploring

ways to improve perceived justice in contemporary higher educational institutions is imperative. Various dimensions of organizational justice, including procedural justice, distributive justice, leadership justice, and information justice, have been explored in research focusing on teachers in higher vocational colleges. Findings reveal a generally low perception of justice among teachers, particularly in procedural and distributive justice aspects. Addressing these issues is crucial for enhancing the work environment and commitment of teachers. Studies on the unfair distribution of work performance in higher vocational colleges emphasize the need to optimize performance distribution systems. Work performance positively influences teachers' perceptions of justice, with higher performance correlating with stronger justice perceptions. Additionally, work-family conflict negatively impacts justice perceptions. Empirical research on teachers in privately-run higher institutions suggests that demographic variables have limited influence on perceived justice. Outgoingness, agreeableness, and work engagement play roles in shaping procedural and information justice perceptions. Moreover, performance remuneration, particularly the remuneration system, significantly affects organizational justice perception.

2.2 Research Hypotheses

Organizational justice plays a crucial role in shaping an employee's fulfillment of the psychological contract. Four distinct dimensions of organizational justice, they are procedural justice, distributive justice, interpersonal justice, and information justice, they have been identified. Organizational justice encompasses distributive fairness, procedural fairness, and interactional fairness, representing employees' judgment, cognition, and experience of fairness. Distributive fairness and procedural fairness impact employees' work engagement, as employees are more willing to invest higher levels of work engagement when they perceive fairness. Some scholars argue that procedural fairness and interactional fairness are positively correlated with employees' work engagement. Procedural fairness and interactional fairness have a positive impact on individual work engagement, and individual work engagement can elicit positive responses from others (Akiomi, Norito, Masao, et al., 2010). Chu and Mao's (2012) study indicate that in the knowledge economy era, knowledge workers' core role in human resource management is becoming increasingly prominent, and organizational fairness has a significant positive effect on the work engagement of knowledge workers. Chen and Ma (2018) posit that organizational fairness directly influences employees' work engagement, interactional

fairness positively affects employees' work engagement, while the impact of distributive fairness on employees' work engagement is not significant. In situations with lower emotional intelligence, procedural fairness and interactional fairness have a more significant impact on employees' work engagement. Individuals invest their energy, time, and physical strength in organizational work, having a clear understanding of their position and job functions. Expressing emotions through communication and interaction with others is closely related to employees' perception of organizational fairness. Scholars argue that organizational fairness significantly influences individuals' work engagement during the work process. Organizational fairness, procedural fairness, and interactional fairness all influence individual work engagement, with procedural fairness showing a positive correlation with individual work engagement (Dorothea, 2013). Some scholars point out the close correlation between employees' work engagement and distributive fairness, procedural fairness, and interactional fairness, as these factors play a positive role in individual work engagement (Boon & Kalshoven, 2014). The sense of organizational support also influences employees' work engagement, as employees who feel organizational support are more likely to increase their emotional dependence on the organization and dedicate themselves to organizational interests. Employees who perceive organizational support are more willing to generate a willingness to work positively, fully investing and focusing on current work. Relevant scholars believe that work engagement enables individuals to exhibit a positive work attitude within the organization, resisting compromise in the face of challenges, and recovering confidence quickly in difficult times (Meyer & Schneider, 2021). Previous research has indicated relationships between procedural justice, distributive justice, interpersonal justice, informational justice, and psychological contract fulfillment.

Furthermore, interpersonal justice stands out as a pivotal precondition for psychological contract fulfillment. When employees experience interpersonal justice from their supervisors, discussions about psychological contract fulfillment often arise among colleagues. Respectful treatment and the receipt of accurate information during communication with supervisors signify the achievement of information justice. In situations where employees perceive high levels of interpersonal justice, informational justice, and distributive justice, they are less likely to be aware of inconsistencies. Thus, if employees believe their supervisors treat them fairly, provide transparent information, and ensure equitable distribution, they are more likely to perceive the psychological contract.

Some studies suggest correlations between procedural justice, distributive justice, interpersonal justice, informational justice, and employee engagement. Employee engagement, as defined by Haslam and Platow (2001), refers to an employee's perception of "the sense of belonging" within the organization and the extent of their involvement in their work. Regarded as an essential dimension, employee engagement is a critical aspect of the organizational context. There exists a positive correlation between psychological contract fulfillment and employee engagement, as evidenced by studies. Psychological contract fulfillment, in this context, pertains to an employee's perception of the extent to which their needs are satisfied within the organizational framework. This perception significantly shapes an employee's overall attitude toward the organization.

Consequently, the perceived psychological contract plays a positive role in influencing an employee's engagement. Psychological contract fulfillment acts as a mediating factor in the relationship between organizational justice and both the attitude and behavior of employee engagement. Specifically, psychological contract fulfillment serves as a mediator between organizational justice and employee engagement. The mediating role of psychological contract breach in the association between procedural justice and employee engagement. When assessing their interactions with superiors, an employee gauges the experience through the lens of their psychological contract. The equitable treatment received from supervisors embodies interpersonal justice, while transparent communication of organizational decisions or procedures signifies information justice. Interpersonal justice and information justice positively impact an employee's feelings of pride and self-esteem, prompting a psychological connection with the organization. The employee evaluates the quality of their organizational relationship based on equitable interpersonal interactions and clear explanations, coupled with a sense of being respected and valued when supervisors treat them fairly and communicate transparent explanations regarding organizational procedures. In an environment characterized by equitable interpersonal interactions and clear explanations, an employee is less likely to perceive inconsistencies, thereby enhancing the likelihood of perceiving a psychological contract. Furthermore, the employee is more inclined to feel a sense of obligation to foster inclusivity within the organization, leading to the development of a sense of belonging and commitment to the organization. Building on these rationales, this research posits the following hypothesis.

H1: Procedural justice (PJE) is positively correlated with psychological contract fulfillment (PCF) among teachers in privately-run higher institutions in Fujian, China.

H2: Distributive justice (DJE) is positively correlated with psychological contract fulfillment (PCF) among teachers in privately-run higher institutions in Fujian, China.

H3: Interpersonal justice (ITJ) is positively correlated with psychological contract fulfillment (PCF) among teachers in privately-run higher institutions in Fujian, China.

H4: Informational justice (IFJ) is positively correlated with psychological contract fulfillment (PCF) among teachers in privately-run higher institutions in Fujian, China.

H5: Procedural justice (PJE) is positively correlated with employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China.

H6: Distributive justice (DJE) is positively correlated with employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China.

H7: Interpersonal justice (ITJ) is positively correlated with employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China.

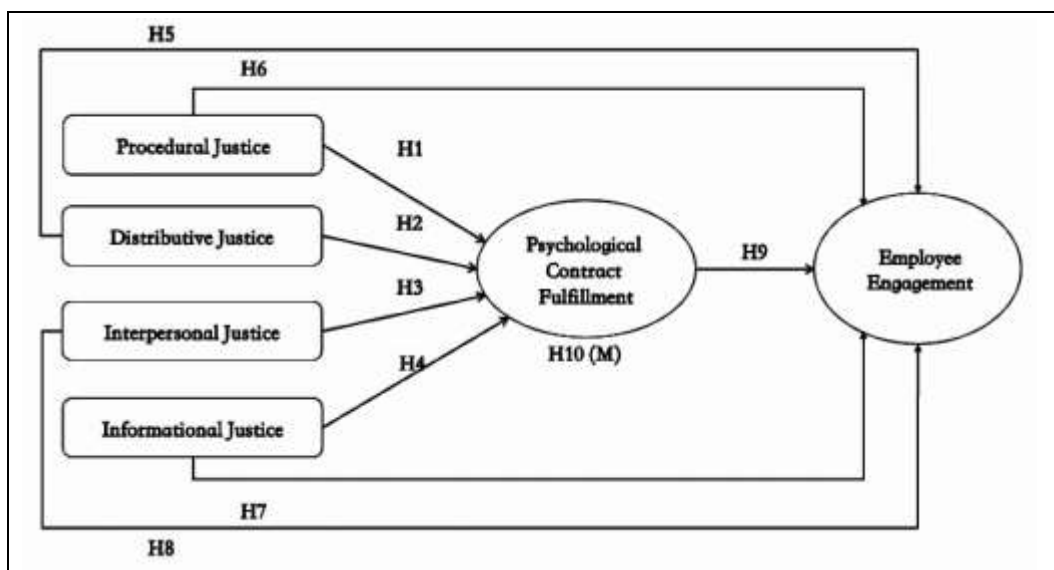
H8: Informational justice (IFJ) is positively correlated with employee engagement (EET) among teachers in privately-run higher institutions in Fujian, China.

H9: Psychological contract fulfillment (PCF) is positively correlated with employee engagement (EET).

H10: Psychological contract fulfillment (PCF) has a mediating effect between procedural Justice (PJE), Distributive Justice (DJE), Interpersonal Justice (ITJ), Informational Justice (IFJ), and employee engagement (EET).

2.3 Conceptual Framework

Figure 1 Conceptual Framework



Source: Design by the researcher (2023)

3. Research Methodology

3.1 Research Methods

This research applied a quantitative research method as the research method. In the quantitative research, this research took Fujian as the research scope and focused on 36 privately-run higher institutions, including 16 undergraduate universities and 20 junior colleges. There are privately-run higher institutions in five cities, which are Fuzhou, Xiamen, Quanzhou, Zhangzhou, and Nanping in Fujian. According to the Fujian Statistical Yearbook by the Fujian Provincial Bureau of Statistics, the total number of teachers in 36 privately-run higher institutions was 15,336 (2022).

3.2 Research Tools

All the items in the questionnaire survey applied in this research were quoted from the maturity scale published in a journal, and the internal consistency coefficient was greater than 0.8. Questionnaire items were scored with the Likert five-point scale, from 1 to 5 points, indicating “strongly disagree”, “disagree”, “neither agree nor disagree”, “agree”, and “strongly agree”, respectively. The full questionnaire is attached in the appendix.

3.3 Sampling Technique

The goal of social science research is to test the research’s hypotheses. However, in social science research, often there is not enough money or time to collect data from many different populations or the entire population. Therefore, this research only selected a part of the population through sampling. The selected part is the sample. This research then extrapolated the characteristics of the sample to conclude the characteristics of the entire

population. In this research, the population was 15,336 people. According to the sampling technique developed by Taro Yamane (1967), based on the calculation method $n=N/(1+N(e)^2)$ and $e = 0.05$, the sample size of this research was at least 390 people. So, this research distributed 600 questionnaires.

4. Data Analysis

4.1 Descriptive analysis

A total of 600 questionnaires were distributed and 549 were recovered, with 507 valid. In summary, the basic characteristics of the valid samples of teacher participants at private higher colleges and universities in Fujian Province demonstrated the following characteristics: the ratios of male and female participants are close; their age distribution is relatively uniform; most participants have an educational background of Ph.D. and post doctorate, and most of their job titles are associate professors and professors.

Table 2 Basic information

		n	%
Gender	Male	252	49.7
	Female	255	50.3
Age	30 and younger	110	21.7
	31-39	144	28.4
	40-49	148	29.2
	50 and older	105	20.7
Educational background	Bachelor's degree	123	24.3
	Master's degree	119	23.5
	Ph.D.	129	25.4
	Post Doctorate	136	26.8
Job title	Lecturer	129	25.4
	Associate Professor	133	26.2
	Professor	127	25.0
	Assistant Teacher	118	23.3
	Total	507	100.0

4.3 Reliability analysis

The reliability analysis result of the questionnaire demonstrated that the data are of a high intrinsic consistency and reliability, laying a foundation for subsequent research. The result supported the conclusions of sample characteristics analysis and descriptive statistical analysis, providing strong support for further data analysis and model construction, deepening the understanding of characteristics, attitudes, and behaviors of teachers at private higher colleges and universities in Fujian Province.

Table 3 Reliability analysis result

Variable	Items	Cronbach's α
Procedural justice	7	0.895
Distributive justice	4	0.882
Interpersonal justice	4	0.839
Information justice	5	0.936
Psychological contract fulfillment	5	0.890
Employee engagement	6	0.861

4.4 Validity analysis

1) Convergent validity

According to the convergent validity analysis result, the measurement tool used in this study is of a good convergent validity, a high reliability and stability, ensuring the further data analysis and research to deeply explore the attitudes, views and behaviors of teachers at private higher colleges and universities in Fujian Province in procedural justice, distributive justice, interpersonal justice, information justice, psychological contract fulfillment and employee engagement with these tools. The result has laid a foundation for this study, increasing the reliability and validity of this study.

Table 4 Convergent validity analysis result

Variable	n	Factor loading	CR	AVE
Procedural justice	A1	3.71	0.918	0.615
	A2	3.70		
	A3	3.82		

	A4	3.67		
	A5	3.79		
	A6	3.78		
	A7	3.78		
Distributive justice	B1	3.81	0.920	0.741
	B2	3.97		
	B3	3.84		
	B4	3.79		
Interpersonal justice	C1	3.82	0.894	0.679
	C2	3.60		
	C3	3.75		
	C4	3.78		
Information justice	D1	4.10	0.951	0.795
	D2	4.17		
	D3	4.16		
	D4	4.13		
	D5	4.17		
Psychological contract fulfillment	E1	3.53	0.921	0.699
	E2	3.59		
	E3	3.75		
	E4	3.58		
	E5	3.68		
Employee engagement	F1	3.98	0.897	0.592
	F2	3.91		
	F3	3.81		
	F4	3.98		
	F5	3.86		
	F6	3.74		

2) Discriminant validity

According to the Fornell & Larcker Criterion test result, each variable is of good discriminant validity in the model, that is, variables can be accurately and reliably separated,

	Total	% of varia nce	Cumulat ive %	loadi ngs	loadi ngs	% of varian ce	Cumulat ive %	loadi ng	loadi ng
1	12.07	38.9	38.942	12.07	38.9	38.942	4.499	14.51	14.5
	2	42		2	42			2	12
2	2.625	8.46	47.409	2.625	8.46	47.409	4.248	13.70	28.2
	7			7				2	14
3	2.033	6.55	53.968	2.033	6.55	53.968	3.714	11.98	40.1
	9			9				1	95
4	1.932	6.23	60.201	1.932	6.23	60.201	3.539	11.41	51.6
	3			3				7	12
5	1.602	5.16	65.368	1.602	5.16	65.368	3.092	9.974	61.5
	6			6					87
6	1.062	3.42	68.792	1.062	3.42	68.792	2.234	7.206	68.7
	5			5					92

4.6 Structural equation model

1) Model fitting

Table 7 Model fitting

Construct	R ²	adj-R ²	Q ²
Psychological contract fulfillment	0.351	0.346	0.239
Employee engagement	0.477	0.472	0.277

2) Direct effect test

This study selected a resampling sample with a size of 5000 with Bootstrapping algorithm in software to test the original data. Then this study analyzed the path test result of the model, so as to obtain the path coefficient and CR of the structural equation model. The critical proportion, T-value, can determine whether the regression coefficient is significant or not. It is generally believed that a T-value greater than or equal to 1.96 indicates there is a significant difference at the significant level of 0.05 (or $P < 0.05$). The model path test

result and the hypothesis test result are shown in Table 8.

Table 8 Direct effect test result

Path correlation	β	SE	T	P
PJE -> PCF	0.151	0.045	3.360	0.001
DJE -> PCF	0.145	0.045	3.249	0.001
ITJ -> PCF	0.242	0.061	3.983	0.000
IFJ -> PCF	0.206	0.059	3.509	0.000
PJE -> EET	0.129	0.041	3.130	0.002
DJE -> EET	0.208	0.040	5.159	0.000
ITJ -> EET	0.233	0.057	4.088	0.000
IFJ -> EET	0.183	0.046	3.950	0.000
PCF -> EET	0.147	0.046	3.190	0.001

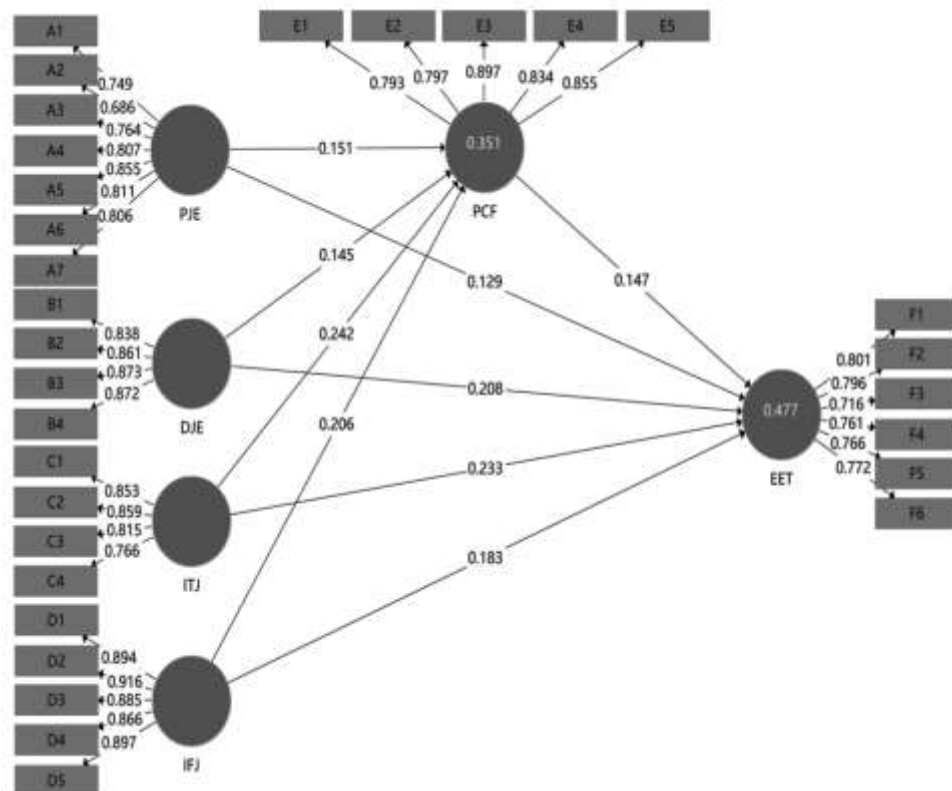


Figure 1 Path coefficient

3) Mediating effect test

This study then verified the mediating effect of psychological contract fulfillment, and the

test result is shown in Table 9. It can be seen from Table 9 that procedural justice, distributive justice, interpersonal justice, information justice and psychological contract fulfillment have significant positive and indirect effect on employee engagement, with a confidence interval not containing 0.

Table 9 Mediating effect test result

Indirect path	β	SE	T value	LLCI	ULCI	P
DJE -> PCF -> EET	0.021	0.010	2.040	0.005	0.046	0.041
PJE -> PCF -> EET	0.022	0.010	2.318	0.006	0.043	0.020
ITJ -> PCF -> EET	0.036	0.014	2.638	0.012	0.064	0.008
IFJ -> PCF -> EET	0.030	0.013	2.318	0.008	0.059	0.021

5. Discussion and Conclusion

5.1 Conclusion

In the ever-evolving landscape of higher education in Fujian, China, the study titled "Organizational Justice, Psychological Contract Fulfillment, and Employee Engagement: A Study of Teachers in Privately-Run Higher Institutions" delved into the intricacies of the interactions between these three key elements. Throughout this research, the researcher has sought to uncover the factors that influence teachers' psychological contract fulfillment and their subsequent engagement within privately-run higher institutions. The research was set within the context of Fujian, China, encompassing 36 privately-run higher institutions, comprising 16 undergraduate institutions and 20 junior college institutions, spread across five cities, including Fuzhou, Xiamen, Quanzhou, Zhangzhou, and Nanping. These institutions represent a dynamic and essential part of the region's higher education landscape, catering to diverse student populations. Understanding and optimizing the experiences of teachers within these institutions is pivotal for their growth and, subsequently, the development of their students. The research population consisted of 15,336 teachers from privately-run higher institutions across Fujian. Following Yamane's formula (1967) for sample size calculation, which considers the population size (N) and an acceptable margin of error (e), this study determined that a minimum of 390 respondents was required, given an error margin of 0.05. Consequently, 600 questionnaires were distributed. Ultimately, 549 questionnaires were retrieved, of which 507 proved valid for our analysis. The rigorous process of sampling and data collection served as the foundation for this research, providing an invaluable snapshot of the experiences and perceptions of

teachers in the region's privately-run higher institutions.

Throughout this research, a series of critical findings emerged, shedding light on the interplay between organizational justice, psychological contract fulfillment, and employee engagement. These findings contribute significantly to the existing body of knowledge in the fields of organizational management, human resources, and educational administration. Some of the key takeaways include: 1) **Organizational Justice Matters:** The study substantiates the profound influence of organizational justice, encompassing dimensions such as procedural, distributive, interpersonal, and informational justice. It was found that the perception of fairness within an organization profoundly impacts teachers' levels of engagement and commitment. When teachers believe that their institutions uphold just and equitable practices, they are more likely to engage wholeheartedly in their roles. 2) **Psychological Contract Fulfillment Is Essential:** Psychological contract fulfillment is revealed as a pivotal mediator between organizational justice and employee engagement. Teachers who experience a stronger sense of fulfillment in their psychological contracts tend to display higher levels of engagement. This underscores the significance of creating and maintaining an environment where teachers' expectations and contributions are met, fostering a sense of loyalty and commitment. The research findings extend practical and strategic implications for organizational management and human resource practices. They provide data-driven support to the managers of privately-run higher institutions in Fujian, emphasizing the need to prioritize fairness within the decision-making processes, allocation of resources, interpersonal interactions, and information sharing. In the highly competitive landscape of higher education, the significance of attracting and retaining high-performing teachers cannot be overstated. By focusing on procedural, distributive, interpersonal, and informational justice, institutions have the potential to cultivate positive and engaging work cultures. Such environments can stimulate teacher enthusiasm and commitment, thereby enhancing productivity and fostering success.

In summary, the research journey has revealed the intrinsic value of organizational justice, psychological contract fulfillment, and employee engagement within privately-run higher institutions in Fujian, China. These elements form the cornerstone of a dynamic and thriving educational environment. This study's findings not only resonate with the rich tapestry of past research but also paint a promising picture for the future. The implications for organizations are profound, offering a compass to enhance the experiences of their

teaching staff, ultimately elevating student learning and institutional performance. By fostering fairness, nurturing psychological contract fulfillment, and driving employee engagement, privately-run higher institutions can become beacons of educational excellence.

5.2 Discussion

These conclusions provide valuable insights for organizational management, emphasizing the importance of fairness in various dimensions for employee engagement. By focusing on these fairness aspects, organizations can enhance employee engagement levels, consequently improving productivity and job satisfaction. This comprehensive understanding of the relationships between fairness factors and employee engagement offers practical guidance for organizations striving to create a positive and engaging workplace culture. In summary, these findings hold profound implications across various domains. In human resource management, understanding how fairness factors influence employee engagement can assist organizations in formulating more effective HR strategies to boost employee satisfaction and performance. In organizational management, prioritizing fairness can help create a more attractive work environment that attracts and retains top-tier employees. Furthermore, in the field of organizational research, these conclusions provide robust support for further investigations into the relationships between internal organizational factors and employee behavior. These research findings underscore the pivotal role of fairness factors in employee engagement. In today's fiercely competitive business environment, attracting and retaining high-performing employees is paramount. By focusing on procedural justice, distributive justice, interpersonal justice, information justice, and psychological contract fulfillment, organizations can construct a positive work culture, thereby inspiring employees' passion, and commitment, increasing productivity, and achieving greater success.

These research findings emphasize the indispensability of fairness factors in organizational success and employee satisfaction, offering organizations a clear roadmap to enhance employee engagement, thus creating a more vibrant and appealing workplace. The researcher conducted an in-depth path analysis and found significant insights in various aspects of organizational justice. In terms of Procedural Justice (PJE), item A5 ("The procedures used in my organization should be based on accurate information") stands out with a path weight of 0.855. This highlights employees' strong pursuit for organizational

procedures to be based on accurate information. It not only reflects their concern for the decision-making process but also underscores their high regard for information accuracy. This discovery provides crucial clues for organizations to emphasize transparency in decision formulation and execution. In Distributive Justice (DJE), item B3 ("The evaluation of my performance should assess what I have contributed to the organization") emerges as the most prominent factor with a path weight of 0.873. This indicates that employees strongly expect performance evaluations to consider their actual contributions to the organization. The finding emphasizes that employees are not only focused on their individual work outcomes but also value the contribution of individuals to the overall organization. Regarding Interpersonal Justice (ITJ), item C2 ("My colleagues should treat me with dignity") has the highest path weight at 0.859. This reflects employees' emphasis on relationships with colleagues, emphasizing their expectation to be treated with respect and fairness in the work environment. This is crucial for fostering a positive team atmosphere and collaboration. In terms of Informational Justice (IFJ), item D5 ("My supervisor should tailor his/her communications to my specific needs") becomes the most prominent factor with a path weight of 0.897. This suggests that employees believe supervisors should understand and meet individual communication needs, providing a foundation for effective information transmission. This is vital for establishing effective communication channels between leaders and employees. In Psychological Contract Fulfillment (PCF), item E3 ("The college should value me as an individual") has the highest path weight at 0.897. Lastly, in Employee Engagement (EET), the item F1 ("My job should inspire me") has the highest path weight at 0.801. This indicates that employees have high expectations for their jobs to be inspiring, emphasizing the importance of motivational factors for employee commitment and engagement.

In summary, this research provides profound insights, guiding organizations to make improvements in different aspects. Focusing on transparency and accuracy in information, recognizing individual contributions, creating a respectful and fair work environment, establishing effective leadership communication, and valuing individuality and job inspiration are crucial elements for organizations to enhance employee satisfaction, commitment, and overall performance. The results of path analysis offer valuable guidance for organizations to formulate strategies, improve workflow, and strengthen employee management, aiding in the creation of a work environment that is more positive,

collaborative, and capable of unleashing employee potential.

5.3 Recommendation

The findings of this research offer several recommendations for privately-run higher institutions, educational administrators, and policymakers in Fujian, China, aiming to enhance organizational justice, psychological contract fulfillment, and employee engagement. Institutions should prioritize the cultivation of fairness within all organizational processes by promoting transparency, employee participation, and the consistent application of rules and procedures. They should provide continuous training and development of managers and decision-makers to uphold principles of justice, which can contribute to creating an environment where teachers perceive a higher degree of fairness. They should also proactively manage teachers' psychological contracts by regularly assessing their expectations and ensuring they align with institutional practices. Feedback sessions should be conducted by establishing open channels of communication and implementing mechanisms for addressing discrepancies in expectations.

This proactive approach can strengthen the sense of trust and commitment. Institutions should emphasize the importance of interpersonal relationships among teachers, colleagues, and administrators. They can provide platforms for knowledge sharing, teamwork, and support networks. They should also organize team-building activities, mentorship programs, and forums that encourage positive interactions. Building and nurturing relationships among staff members can enhance teacher satisfaction and overall engagement. They must ensure that information is communicated transparently, accurately, and in a timely manner. Establish robust systems for sharing important decisions, policies, and procedures with the teaching staff. This enhances perceptions of informational justice and creates a more engaged teaching workforce. They should consider developing targeted professional development programs that address the specific needs and aspirations of teaching staff. These programs can be designed to align with the psychological contracts of teachers and can serve to further their engagement. Institutions should regularly review and assess the effectiveness of policies and practices related to organizational justice, psychological contract fulfillment, and employee engagement. They should be open to making necessary adjustments based on teachers' feedback and evolving needs, encourage a supportive and inclusive work environment that values diversity, promotes work-life balance, and fosters personal and professional growth. Such an environment can bolster

employee engagement by providing teachers with a sense of belonging and overall well-being.

REFERENCES

- Akiomi, I., Norito, K., Masao, I., et al. (2010). Organizational justice, psychological distress, and work engagement in Japanese workers. *International Archives of Occupational and Environmental Health*, 83(1), 29-38.
- Boon, C., & Kalshoven, K. (2014). How high-commitment HRM relates to engagement and commitment: The moderating role of task proficiency. *Human Resource Management*, 53(3), 403-420.
- Chen, Z. J., & Ma, S. J. (2018). Research on the correlation between compensation fairness and employee behavioral engagement: Based on the moderating effect of emotional intelligence. *Shandong Social Sciences*, 2018(3), 124-129.
- Chu, C. X., & Mao, H. Q. (2012). Mechanism of knowledge workers' work engagement: The research. *Journal of Hohai University (Philosophy and Social Sciences Edition)*, 14(4), 73-75.
- Dorothea, W. A. (2013). The relationship between employee engagement, organizational citizenship behavior, and counterproductive work behavior. *International Journal of Business Administration*, 4(2), 46-56.
- Fang, L., Shi, K., & Zhang, F. H. (2010). A review of research on employee engagement. *Management Review*, 22(05), 47-55.
- Goffman, E. (1961). *Encounters: Two studies in the sociology of interaction*. Ravenio Books.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.
- Meng, F., & Wu, J. (2015). Merit pays fairness, leader-member exchange, and job engagement: Evidence from Mainland China. *Review of Public Personnel Administration*, 35(1), 47-69.
- Meyer, J. P., & Schneider, B. (2021). *A research agenda for employee engagement in a changing world of work*. Cheltenham, UK: Edward Elgar Publishing, 71-77.
- Rothmann, S., & Welsh, C. (2013). Employee engagement: The role of psychological conditions. *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 22(1), 14-25.

- Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, burnout, and work engagement: three of a kind or three different kinds of employee well-being? *Applied Psychology, 57*(2), 173-203.
- Soane, E., Truss, C., Alfes, K., et al. (2012). Development and application of a new measure of employee engagement: the ISA Engagement Scale. *Human Resource Development International, 15*(5), 529-547.
- The Gallup Poll. (2007). *Public Opinion 2005*. Rowman & Littlefield, 2007.
- Xiao, M. Z., & Duan, L. (2014). The current status and future research directions of employee engagement research. *China Human Resources Development, (01)*, 35-40.
- Xie, J. Q., & Fu, L. R. (2018). The relationship between employees' psychological contracts and engagement: A case study of logistics companies. *China Business and Market, 32*(09), 108-119.
- Zhang, Y. W., & Gan, Y. Q. (2005). Examination of the reliability and validity of the Chinese version of the Utrecht Work Engagement Scale (UWES). *Chinese Journal of Clinical Psychology, (03)*, 268-270+281.