

The influence of compensation, school climate and principal transformational leadership on job satisfaction in higher vocational colleges at Wuxi City, China

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Abstract: The objective of this study was to investigate the impact of compensation, school climate, and principal transformational leadership on teachers' job satisfaction in Wuxi public higher vocational colleges. Data were gathered via a structured questionnaire survey, and SPSS and AMOS software were employed for quantitative analysis. A comprehensive questionnaire encompassing compensation, school climate, principal transformational leadership, and teachers' job satisfaction was developed to survey teachers at public vocational colleges in Wuxi City. To ensure data quality, reliability and validity tests were conducted, and pre-processed data underwent thorough cleaning. Utilizing structural equation modeling (SEM) analysis, the direct effects of each factor on job satisfaction were thoroughly examined. The findings indicate that compensation, school climate, and principal transformational leadership significantly and positively influence the job satisfaction of teachers in Wuxi public higher vocational colleges. This study elucidates the critical mechanisms affecting teachers' job satisfaction, underscores the pivotal role of compensation, school climate, and principal transformational leadership in enhancing teachers' job satisfaction, and provides valuable insights for college managers and policymakers aiming to improve teachers' job satisfaction and well-being. Additionally, it establishes a robust theoretical and empirical foundation for future research in this area.

Keywords: Compensation, Job satisfaction, Principal transformational leadership, School climate.

1. Introduction

The employee's job satisfaction primarily influences the individual, subsequently impacting the company and organization. When employees are content with their careers, they often align themselves with the company's goals and mission [1]. Higher job satisfaction among employees also leads to reduced turnover rates, enabling HR departments to save costs and allocate more time towards sourcing qualified future employees [2]. With the advancement of society and economic growth, higher education has emerged as the primary avenue for individuals to pursue knowledge and attain personal development [3]. Enhancing the quality of higher education hinges upon the efficacy of educators' endeavors, with their contentment exerting a direct impact on achieving excellence [4]. Therefore, college teachers play a pivotal role in ensuring the quality of higher education and are of significant importance to the advancement of social development. The level of job satisfaction among teachers directly impacts their enthusiasm and performance, thus it is crucial to investigate the factors influencing their job satisfaction [5]. Recognizing the importance of improving teacher job satisfaction for enhancing educational quality, the Organisation for Economic Co-operation and Development (OECD) has actively promoted TALIS2018 (Teacher Teaching International Survey), an international project that provides an in-depth analysis of various dimensions such as

professional development and job satisfaction among teachers [6]. In the speech on World Teachers' Day 2017 titled "Promoting Freedom of Teaching, Empowering Teachers," Bokova, former Director-General of UNESCO, called upon nations to grant more freedom to teachers in their instructional practices [7].

In recent years, extensive research has been conducted in academic circles on the factors influencing teachers' job satisfaction. Among these factors, work motivation and the work conditions including compensation, school climate, principal leadership and so on play crucial roles in determining teachers' job satisfaction. School conditions is evaluated to prove the influence on job satisfaction, burnout levels, and school management. The level of work motivation among teachers directly impacts their exercise of teaching autonomy while the degree of support from school administrators and a relaxed school atmosphere contribute to the realization of teachers' job satisfaction [8].

However, there is a concerning trend of school teachers leaving their positions at an alarming rate, leading to high staff turnover in many schools. At the meantime, while the role of teachers' work in student achievement is widely recognized, the question of whether teachers are satisfied with their work environment is often overlooked [9]. What's more, in light of economic and societal advancements, the salary growth for higher vocational colleges teachers fails to keep pace with inflation rates, resulting in lower-than-expected income levels and diminished job satisfaction [10, 11]. In addition, a significant number of schools lack the necessary modern facilities required for effective teaching in order to meet the potential demands of the workforce. The incidence of campus assaults, conflicts, and disciplinary issues among faculty, students, and school administrators in vocational colleges has been on the rise [12, 13]. What's important is that there exist certain leaders who persistently adhere to their own perspectives and dismiss novel ideas put forth by other educators, thereby engendering disappointment among teachers and undermining their motivation to perform [14]. The leaders' inability to keep pace with societal demands stems from the leaders' adherence to outdated management methods and resistance towards embracing innovative management concepts, which has resulted in significant discontent among teachers and a high turnover rate among employees [15].

2. Literature Review and Hypothesis Development

In previous studies, scholars have examined the correlation between school compensation, school climate and principal transformational leadership and job satisfaction, as well as analyzed the work motivation influences teachers' job satisfaction. Some researchers have utilized structural equation modeling to uncover the causal relationship among various factors, revealing that work motivation and school climate and principal transformational leadership play important roles in teachers' job satisfaction [16].

2.1. The Linkage between Compensation and Job Satisfaction

Serang, et al. [17] examined the impact of salary on job satisfaction among family planning instructors in South Sulawesi province, revealing a positive and significant effect of compensation on job satisfaction. Usu, et al. [18] investigated the interplay between compensation, motivation, and work discipline in relation to job satisfaction. Their results demonstrated that compensation has a positive and significant influence on job satisfaction. Geremew [19] assessed the impact of compensation and benefits programs on employee job satisfaction at Wegagen Bank in Addis Ababa, Ethiopia. The study identified various remuneration schemes at Wegagen Bank, such as basic salary, transport allowance, hardship allowance, and telephone allowance, which collectively contribute to job satisfaction. In contrast, Sriadmitum, et al. [20] found no significant relationship between compensation and job satisfaction.

According to the literature review, the following hypothesis is proposed:

H₁: Compensation has a positive and significant impact on job satisfaction.

2.2. The Linkage between School Climate and Job Satisfaction

A study conducted by Fang and Qi [21] revealed that school climate significantly predicts teachers' job satisfaction. Nalipay [22] sought to identify the key factors of school climate that have a significant impact on teachers' job satisfaction. Cross-sectional analysis indicates that indicators of school climate are predictive of teachers' job satisfaction and well-being. The study by Khun-inkeeree, et al. [23] examined teachers' positive and negative feedback regarding the organizational climate of schools and its influence on their job satisfaction. Quantitative findings indicated significant relationships between job satisfaction and organizational climate. Results from Toropova, et al. [24] study indicated a substantial relationship between school working conditions and teachers' job satisfaction. Chinese researchers, such as Zhou, et al. [25] also confirmed that a positive school climate has significant direct effects on STEM teachers' job satisfaction.

Drawing from these findings, the following hypothesis is proposed:

H₂: School Climate has a positive and significant impact on job satisfaction.

2.3. The Linkage between Principal Transformational Leadership and Job Satisfaction

The study conducted by Hidayat, et al. [26] demonstrates that enhancing the transformational leadership role of principals and promoting organizational justice within schools can significantly improve teachers' job satisfaction. Purwanto and Sulaiman [27] utilized a quantitative survey method to establish that principal transformational leadership has a significant impact on teacher job satisfaction. Zhang, et al. [28] examined the relationship between principal transformational leadership and teacher job satisfaction from the perspective of Chinese principals, revealing a notable influence of transformational leadership on teacher job satisfaction. Mahzan and Nordin [29] found a significant correlation between the dean's implementation of transformational leadership practices and lecturer job satisfaction at Mara Career College. Siswanto and Yuliana [30] conducted a quantitative study indicating that transformational leadership, characterized by idealized influence, inspirational motivation, and individualized consideration, directly affects job satisfaction. Asbari [31] concluded that transformational leadership exerts both direct and indirect positive effects on teacher satisfaction. Changlong [32] reported that transformational leadership positively influences job satisfaction among faculty members in private universities in Shandong Province.

Building on these findings, the following hypothesis is proposed:

H₃: Principal transformational leadership has a positive and statistically significant impact on job satisfaction.

3. Hypothesis Model

Based on the aforementioned assumptions, the researchers have developed the following conceptual framework model, which primarily investigates the impact of compensation, school climate, and principal transformational leadership on teacher job satisfaction. Table 1 shows the conceptual framework and hypothesis model of the research.

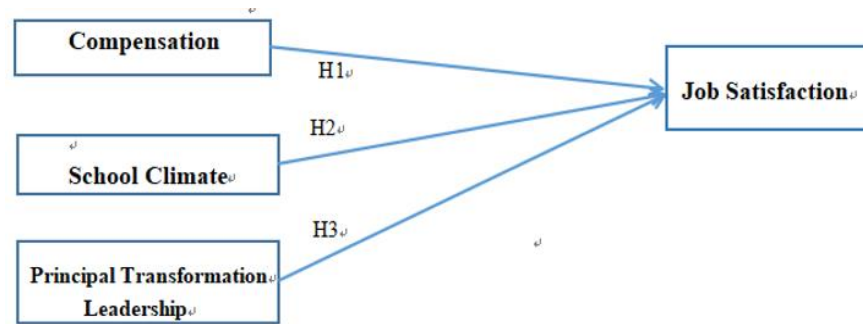


Figure 1.
The Conceptual Framework and Hypothesis Model of the Research.

4. Research Methodology

4.1. Study Method

In this study, a quantitative research method was employed to analyze factors influencing job satisfaction among teachers at seven public higher vocational colleges in Wuxi, China. The population comprised approximately 4,386 teachers, providing a substantial sample base for data collection and analysis of the stated relationships. According to Krejcie and Morgan [33] the calculated sample size was 354. Each construct is measured by using 5-point likert type scale (5 = strongly agree and 1 = strongly disagree). Utilizing stratified sampling, the questionnaire link was distributed via WeChat groups and emails using the Questionnaire Star platform, resulting in the collection of 439 valid responses. The data were subsequently analyzed using SPSS and Amos. Based on the findings, hypotheses were formulated to evaluate the correlations between compensation, school climate, transformational leadership of principals, and teacher job satisfaction.

4.2. Instrument and Measurement

In this study, compensation is measured using the Compensation Scale (CPS) developed by Ash, et al. [34] ensuring the accuracy of the assessment. The School Climate Scale (SCS), based on the framework established by Domínguez, et al. [35] is utilized to evaluate school climate. Principal transformational leadership is assessed through the Principal Transformational Leadership Scale (PTLS), adapted from Balyer and Oezcan [36]. Additionally, job satisfaction is evaluated using the Job Satisfaction Scale (JSS) adapted from Herzberg, et al. [37]. See the Table 1.

Table 1.
The Instrument of the Variables.

NO	Dimension	Items	Literature Review (adapted)
1	Compensation Scale (CPS)	I believe the salary paid by my college is fair.	Ash, et al. [34]
2		I am satisfied with the amount of salary I receive from my college.	
3		I am satisfied with the most recent pay raise I received from my college.	
4		I believe the pay differences between my roles in the college are fair.	
5		I believe the pay structure at my college is reasonable.	
6	School Climate Scale (SCS)	The administrators of my college take teachers' demands seriously.	Domínguez, et al. [35]
7		In my college, the working conditions are comfortable.	
8		My college is supportive of our teaching methods, emphasizing that students truly understand, not just memorize.	
9		My college emphasizes that teachers maintain good interpersonal relationships with each other rather than criticize.	
10		My college encourages teachers and students by congratulating those who achieve the highest marks.	
11	Principal Transformational Leadership Scale (PTLS)	My principal discusses the college's vision with teachers through daily work-related activities.	Balyer and Oezcan [36].
12		My principal discusses current issues or problems facing the college with teachers.	
13		My principal takes teachers' opinions seriously.	
14		My principal shows appreciation when teachers take the initiative to improve education.	
15		My principal encourages teachers to try new strategies that align with their personal interests.	
16		My principal encourages teachers to continuously improve their teaching strategies.	
17	Job Satisfaction Scale (JSS)	My income is sufficient to cover my basic living expenses.	Hertzberg, et al. [37]
18		I believe my salary is fair and reflects my abilities and contributions.	
19		The working conditions at my college are satisfactory.	
20		I receive adequate recognition for my teaching achievements.	
21		My immediate supervisor treats all staff members fairly and equitably.	

5. Results

5.1. Assessment of the Measurement Model

The advancement of structural models has introduced an alternative approach to structural equation modeling (SEM), enabling rigorous hypothesis testing and validation [38]. The following parts show the measurement model of the research, and are the analysis of validity, reliability and discriminant validity of the study.

According to figure 2, the measurement model evaluates covariance relationships among all variables (independent and dependent) using seven fit measures: CMIN/DF, RMR, GFI, CFI, RMSEA, CR, and AVE. The measurement model consists of 21 items. According to the results of the measurement, it can be summarized that the CMIN=313.272, Chi-square/df=1.731, GFI=.935, AGFI=.917, NFI=.947, and RMSEA=.041. All the values satisfy the standard

requirements. Consequently, the findings indicate a robust alignment between the measurement model and the conceptual framework established in this study.

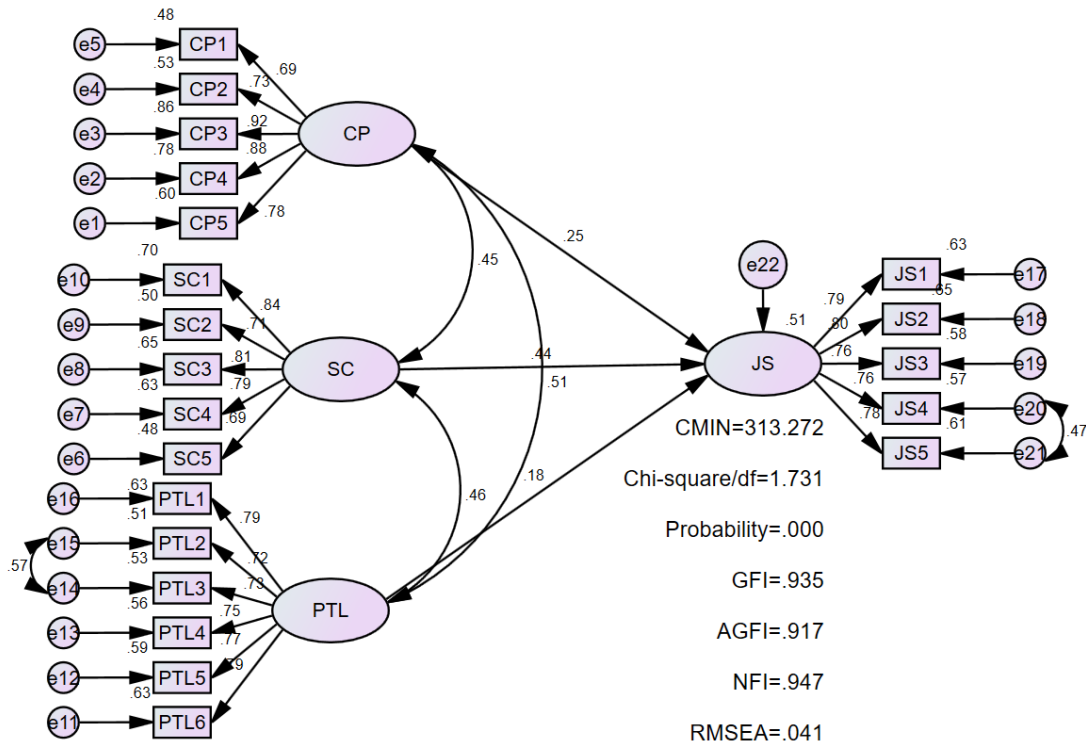


Figure 2.
The measurement model of the research.

5.2. Validity and Reliability

According to Table 2, each item's standardized factor loading values for its underlying variables exceeded 0.6, indicating high significance and convergence across all items. Additionally, AVE values derived from the mean variance of each variable ranged from 0.572 to 0.615 - all surpassing the threshold of 0.5 - thereby demonstrating favorable structural validity. Lastly, construct reliability values for composite reliability ranged from 0.878 to 0.902 - all exceeding the minimum criterion of 0.7, thus affirming reliable construct reliability levels obtained by this scale.

Table 2.
The Measurement of Validity and Reliability.

Validity.				
Variable	Item	Loading (Convergent Validity)	Construct Reliability	AVE (Construct Validity)
CP	CP1	0.69	0.902	0.615
	CP2	0.73		
	CP3	0.92		
	CP4	0.88		
	CP5	0.77		
SC	SC1	0.69	0.878	0.591
	SC2	0.79		
	SC3	0.80		
	SC4	0.70		
	SC5	0.83		
PTL	PTL1	0.81	0.889	0.572
	PTL2	0.76		
	PTL3	0.72		
	PTL4	0.76		
	PTL5	0.73		
	PTL6	0.73		
JS	JS1	0.79	0.885	0.606
	JS2	0.79		
	JS3	0.75		
	JS4	0.75		
	JS5	0.77		

5.3. Discriminant Validity

The criterion for assessing discriminant validity is the square root of the average variance extraction (AVE) for each factor and the value should exceed the correlation coefficient between that factor and other factors. According to the results shown in Table 3, the square root of AVE of each construct is greater than the correlation coefficient of each construction. Therefore, the discriminant validity between all constructs is sufficiently high. The correlation coefficients between latent variables ranged from 0.261 to 0.97. These values are less than the square root of AVE, indicating good discriminant validity between these constructs [38].

Table 3.
Discriminant validity.

Variable	PTL	SC	CP	JS
PTL	0.793			
SC	0.291	0.508		
CP	0.373	0.261	0.668	
JS	0.453	0.449	0.439	0.97

In conclusion, all four dimensions of the tool in the validity evaluation, namely convergence validity, variance extraction validity, structural validity, and discriminant validity meet the standard criteria, which indicates a good validity of the instrument.

5.4. Assessment of the Structural Model

5.4.1. Path Analysis

Table 4.
Hypotheses Results of Relationships tests Structural equation path test results.

Hypothesis	Path	Estimate	Standardized Estimate	S.E	CR	P	Result
H1	Compensation→Job Satisfaction	0.261	0.216	0.059	4.388	***	Supported
H2	School Climate→Job Satisfaction	0.409	0.296	0.076	5.40	***	Supported
H3	Principal Transformational Leadership→Job Satisfaction	0.118	0.107	0.057	2.084	0.037	Supported

Based on the previous research, there is a relation between compensation and job satisfaction. By conducting regression analysis to estimate the CR value and p value, the findings indicate that compensation positively and significantly influences job satisfaction. The standardized estimate yielded a coefficient of 0.261 with a critical ratio (CR) of 4.388, demonstrating statistical significance at the 0.001 level of significance. Therefore, compensation positively and significantly impacts job satisfaction, indicating that hypothesis 1 is supported. In addition, it can be also concluded that there is a statistically important effect of school climate on job satisfaction according to the CR value of the regression estimate and P-value, to estimate whether there is a positive effect of school climate on job satisfaction. The results shows that the standardized estimate was 0.296, CR=5.40, and P value was 0.001, which is less than 0.05. Consequently, school climate positively and significantly influence job satisfaction, implying the supported of hypothesis 2. What's more, By conducting regression analysis to estimate the relationship between principal transformational leadership and job satisfaction, the results of the CR value and p value indicate that principal transformational leadership significantly and positively influences job satisfaction. The standardized estimate yielded a coefficient of 0.107 with a critical ratio (CR) of 2.084, demonstrating statistical significance at the 0.037 level of significance, which is less than 0.05, thus supporting hypothesis 7 in this research.

6. Discussion and Implications

Based on the structural equation path analysis results, it is evident that the path coefficients of all independent variables (compensation, school climate, and principal transformational leadership) on the dependent variable (job satisfaction) are positive. This indicates a positive influence of these factors on job satisfaction. The path relationship test results reveal that the p-value for the relationship between compensation and job satisfaction is 0.00, indicating statistical significance at the $p < 0.01$ level. Similarly, the p-value for the relationship between school climate and job satisfaction is also 0.00, which further confirms its statistical significance at the $p < 0.01$ level. Additionally, the p-value for the relationship between principal transformational leadership and job satisfaction is 0.037, which is below the conventional threshold of 0.05, thus confirming its statistical significance.

7. Limitations and Future Research Recommendations

Although research on teachers' job satisfaction has yielded significant findings, certain limitations remain that warrant attention and provide directions for future studies. Present studies predominantly rely on the questionnaire survey method. While this approach facilitates the collection of extensive data, it may be susceptible to respondent bias, thereby compromising the accuracy and objectivity of the results. Moreover, the questionnaire method may not adequately explore the underlying reasons and mechanisms influencing teachers' job

satisfaction. Besides, some studies exhibit constraints in terms of geographic areas, school types, and teacher demographics when selecting samples.

Therefore, for the future research recommendations, diversified research methodologies are suggested, including interviews, observations, and experiments, to further investigate the underlying causes and mechanisms of teachers' job satisfaction. Secondly, it needs the expansion of study samples in future studies, incorporating samples from different regions, school types, and teacher demographics. Thirdly, comprehensive consideration of multiple influencing factors so that researchers can gain deeper insights into the complex dynamics of teacher job satisfaction. Fourthly, the enhanced cross-cultural comparative researches are needed because comparative analysis of teacher job satisfaction and its influencing factors in various countries and regions can provide valuable insights for developing more targeted policies.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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