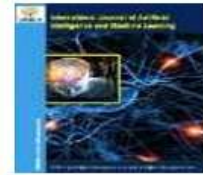




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The Impact of Transformational Leadership on Multidimensionality of Lecturers' Job Satisfaction: PLS-SEM Evidence from Public Universities in Chongqing, China

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Abstract

Lecturers' job satisfaction is an important concern in higher education because it reflects how academic staff evaluate different aspects of their work and workplace experiences. Although transformational leadership has been widely associated with positive employee outcomes, relatively limited attention has been given to its relationship with the multiple dimensions of lecturers' job satisfaction in Chinese public universities. This study examines the relationship between transformational leadership and both overall and multidimensional lecturers' job satisfaction in public universities in Chongqing, China. A quantitative cross-sectional survey design was employed, and data were collected from 653 lecturers and analyzed using SPSS and partial least squares structural equation modeling (PLS-SEM) with SmartPLS. Transformational leadership was conceptualized through idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, while lecturers' job satisfaction was examined across nine dimensions. Transformational leadership was positively associated with overall job satisfaction ($\beta = .511$, $t = 17.592$, $p < .001$) and explained 26.1% of its variance ($R^2 = .261$). Significant positive relationships were also found across all nine dimensions, with coefficients ranging from $\beta = .409$ to $\beta = .453$ (all $p < .001$). Nature of work showed the largest observed coefficient, followed by communication and supervision, whereas promotion showed the smallest. The findings extend understanding of transformational leadership in Chinese higher education and provide practical implications for university leaders seeking to enhance lecturers' job satisfaction.

Keywords: Transformational leadership; Lecturers' job satisfaction; Higher education; PLS-SEM; China

1. Introduction

Lecturers play a central role in the quality and development of higher education institutions through their responsibilities for teaching, research, student supervision, academic service, and institutional development. Their attitudes toward their work are therefore important not only for their individual professional experiences but also for the effective functioning of universities. Among these attitudes, job satisfaction has attracted sustained scholarly attention because academic employees evaluate their work in relation to both intrinsic and extrinsic aspects of employment. Cross-national evidence suggests that academics' job satisfaction is associated with factors such as academic autonomy, institutional governance, salary, working conditions, workload, and organizational environment (Shin & Jung, 2014). Job satisfaction is therefore better understood not only as a general evaluation of one's job but also as a multidimensional experience in which employees may be satisfied with some aspects of their work while being less satisfied with others. Spector (1985), through the development of the Job Satisfaction Survey (JSS), provided an influential multidimensional framework for examining employees' evaluations of different facets of their jobs.

The multidimensional nature of job satisfaction is particularly relevant to the higher education context in China. University lecturers undertake multiple academic and organizational responsibilities while simultaneously experiencing institutional systems related to compensation, academic promotion, performance evaluation, administrative processes, professional relationships, and career development.

Evidence from Chinese universities indicates that academics do not evaluate all aspects of their employment in the same way. Du et al. (2010), based on data collected from university academics across nine Chinese universities, identified multiple dimensions of job satisfaction and found comparatively low levels of satisfaction with salary and benefits. Their study further demonstrated that organizational characteristics, including organizational climate, evaluation orientation, and university management, were associated with both overall and dimensional job satisfaction. These findings highlight the importance of examining not only whether lecturers are generally satisfied with their jobs, but also how they evaluate specific aspects of their working environment.

Leadership represents an important organizational factor that may shape such evaluations. Among contemporary leadership approaches, transformational leadership has received considerable attention because it emphasizes leaders' capacity to inspire followers, communicate meaningful organizational goals, encourage innovative thinking, and respond to individual developmental needs. Transformational leadership is commonly represented by four interrelated dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Avolio et al., 1991). Through idealized influence, leaders act as credible role models and foster trust; through inspirational motivation, they articulate meaningful goals and encourage commitment to a shared vision; through intellectual stimulation, they encourage followers to reconsider established practices and develop new approaches to problems; and through individualized consideration, they recognize followers' differing needs and support their professional development. These leadership behaviors are particularly relevant to universities, where lecturers perform knowledge-intensive work requiring professional autonomy, intellectual engagement, communication, creativity, and continuous development.

The theoretical relevance of transformational leadership to job satisfaction is supported by substantial empirical evidence. Judge and Piccolo's (2004) meta-analysis provided broad support for the validity of transformational leadership across important follower outcomes, including follower satisfaction. Within educational settings, Bogler (2001) found that principals' transformational leadership was associated with teachers' job satisfaction both directly and indirectly through teachers' occupational perceptions. Such findings suggest that transformational leadership may contribute to favorable work attitudes by providing employees with support, recognition, meaningful direction, and opportunities for professional growth. For university lecturers, these leadership behaviors may strengthen perceptions that their contributions are valued, their professional needs are recognized, and their work is connected to meaningful institutional objectives.

The relevance of transformational leadership is also increasingly evident in the Chinese educational context. Wang et al. (2025) demonstrated that principals' transformational leadership significantly predicted overall and multiple dimensions of teacher job performance in Chinese schools, highlighting the value of examining transformational leadership in relation to multidimensional educator outcomes. At the higher education level, Wang and Zou (2026) reported a positive relationship between transformational leadership and job satisfaction among university lecturers in China. Together, these studies provide important evidence for the relevance of transformational leadership to educators' work-related outcomes in the Chinese context. However, Wang et al. (2025) focused on multidimensional job performance in school settings, whereas Wang and Zou (2026) examined lecturers' job satisfaction more broadly. Thus, although the general relevance of transformational leadership to educators' outcomes is increasingly established, further investigation is required to understand how it relates to specific facets of lecturers' job satisfaction in higher education.

A more specific issue therefore remains comparatively underexplored: whether transformational leadership is associated with different facets of university lecturers' job satisfaction to the same extent. Existing research on Chinese university academics has established the multidimensional nature of job satisfaction (Du et al., 2010), while recent evidence has demonstrated a positive relationship between transformational leadership and lecturers' overall job satisfaction in China (Wang & Zou, 2026). However, these two streams of research provide limited insight into how transformational leadership relates separately to specific aspects of lecturers' employment experiences. In particular, limited empirical attention has been given to its relationships with lecturers' satisfaction regarding pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication within Chinese public universities. Examining job satisfaction only at the overall level may therefore conceal meaningful differences in the extent to which transformational leadership is associated with different aspects of lecturers' workplace experiences.

Examining these dimensions separately is theoretically meaningful because different facets of job satisfaction may be connected to leadership through different organizational mechanisms. Transformational leaders may have relatively direct opportunities to shape lecturers' experiences of supervision and communication, facilitate supportive collegial relationships, recognize academic contributions, and enhance the perceived meaningfulness of academic work. In contrast, lecturers'

evaluations of pay, promotion opportunities, fringe benefits, and operating conditions may also be influenced by broader institutional regulations and administrative systems that extend beyond the actions of individual leaders. It should therefore not be assumed that transformational leadership is related equally to every facet of job satisfaction. A multidimensional analysis can provide a more differentiated understanding of the leadership–satisfaction relationship by identifying the dimensions for which the observed relationships are relatively stronger or weaker.

Accordingly, the present study examines the relationship between transformational leadership and lecturers' job satisfaction in public universities in Chongqing, China, at two complementary levels. First, the study investigates the relationship between transformational leadership and lecturers' overall job satisfaction. Second, drawing on the multidimensional logic of the JSS framework, it examines the relationship between transformational leadership and nine dimensions of lecturers' job satisfaction: pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication. Transformational leadership is conceptualized as a higher-order construct comprising idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. By combining an overall assessment with a facet-level analysis, the study seeks to provide a more comprehensive and differentiated understanding of how transformational leadership is associated with lecturers' workplace experiences in public higher education.

This study makes three main contributions. First, it extends existing research on transformational leadership and job satisfaction by providing empirical evidence from lecturers working in Chinese public universities, a context in which direct empirical evidence remains comparatively limited. Second, rather than relying exclusively on an overall measure of job satisfaction, the study examines multiple dimensions of lecturers' employment experiences, thereby providing a more detailed understanding of the leadership–satisfaction relationship. Third, by comparing the observed relationships between transformational leadership and different job satisfaction dimensions, the study provides practical evidence that may help university leaders identify aspects of lecturers' workplace experiences that are more closely associated with transformational leadership practices.

Based on these considerations, the study addresses the following research questions:

RQ1: What is the relationship between transformational leadership and lecturers' overall job satisfaction in public universities in Chongqing, China?

RQ2: How is transformational leadership related to the different dimensions of lecturers' job satisfaction in public universities in Chongqing, China?

RQ3: Which dimensions of lecturers' job satisfaction exhibit relatively stronger or weaker associations with transformational leadership?

2. Literature Review

2.1 Development of Transformational Leadership

Transformational leadership has become a prominent theoretical perspective for explaining how leaders influence followers' attitudes, motivation, and work-related behaviors. Unlike leadership approaches that rely primarily on formal authority or exchanges between rewards and performance, transformational leadership emphasizes the capacity of leaders to create shared purpose, inspire followers, stimulate new ways of thinking, and support individual development. Avolio et al. (1991) conceptualized transformational leadership through four interrelated dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence refers to leaders' capacity to serve as credible role models and generate followers' trust and respect. Inspirational motivation concerns the articulation of meaningful goals and a compelling vision. Intellectual stimulation involves encouraging followers to question established assumptions and develop innovative solutions, while individualized consideration reflects attention to followers' differing needs and professional development.

The relevance of transformational leadership has been demonstrated extensively in educational settings. Leithwood and Jantzi (2006) showed that transformational school leadership can influence organizational conditions, teachers, and classroom practices, while Leithwood and Sun's (2012) meta-analytic review provided broader evidence that transformational school leadership is associated with important school and teacher outcomes. These findings suggest that transformational leadership operates not only through direct leader–follower interactions but also through changes in organizational conditions that shape employees' experiences.

The applicability of transformational leadership is also influenced by institutional and cultural contexts. In China, Li's (2022) review of transformational school leadership research demonstrated increasing application of the theory within Chinese educational settings while emphasizing the need to interpret leadership practices in relation to local organizational and cultural characteristics. Empirical evidence similarly indicates that transformational school leadership is relevant to teachers' commitment to organizational change in China (Liu, 2015). More recently, Wang et al. (2025) found that principals'

transformational leadership significantly predicted overall and multidimensional teacher job performance in Chinese schools, further demonstrating the relevance of transformational leadership to educators' work-related outcomes.

Transformational leadership may be particularly important in higher education because lecturers perform knowledge-intensive work requiring professional autonomy, creativity, intellectual engagement, communication, and continuous development. Leadership that communicates institutional direction, recognizes professional contributions, supports individual development, and encourages academic innovation may consequently shape how lecturers experience their work. From a social exchange perspective, supportive and constructive leader behaviors can also be interpreted as organizational resources that encourage positive reciprocal attitudes from employees (Cropanzano & Mitchell, 2005). Accordingly, the present study conceptualizes transformational leadership as a higher-order construct comprising idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

2.2 Lecturers' Job Satisfaction: Dimensions and Antecedents

Job satisfaction reflects employees' evaluations of their jobs and the experiences associated with their employment. Although it can be examined as an overall attitude, job satisfaction is also inherently multidimensional because employees may evaluate different aspects of their work in different ways. Spector (1985) developed the Job Satisfaction Survey (JSS) as a 36-item instrument encompassing nine facets: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, coworkers, nature of work, and communication. This framework enables researchers to assess both employees' overall job satisfaction and their evaluations of specific aspects of employment.

The distinction between overall and facet-level satisfaction is especially relevant in higher education. Academic employees simultaneously experience intrinsic aspects of work, such as teaching, research, intellectual engagement, and professional autonomy, and extrinsic aspects involving compensation, career advancement, institutional management, administrative procedures, and employment benefits. Cross-national research has shown that academics' job satisfaction is related to multiple features of the academic environment, including salary, workload, autonomy, governance, and organizational conditions (Shin & Jung, 2014). Consequently, lecturers who are highly satisfied with the nature of academic work may not necessarily report comparable satisfaction with salary, promotion, or administrative conditions.

This multidimensionality is also evident in Chinese higher education. Du et al. (2010), using data from 1,770 academics across nine Chinese universities, found that university professors' job satisfaction comprised multiple dimensions and that satisfaction varied considerably across different aspects of employment. In particular, salary and benefits showed comparatively low levels of satisfaction. Their findings also indicated that organizational climate, evaluation orientation, university management, institutional type, and other organizational characteristics were associated with academics' overall and dimensional job satisfaction. These findings suggest that Chinese university lecturers' satisfaction cannot be adequately understood through a single workplace characteristic.

More broadly, recent evidence emphasizes the importance of distinguishing global and facet-specific job satisfaction. Wartenberg et al. (2023), in a meta-analysis and systematic review of teacher job satisfaction, demonstrated that job satisfaction is associated with a range of occupational and performance-related outcomes and noted the value of differentiating specific satisfaction facets rather than relying exclusively on global measures. A facet-level perspective is therefore particularly useful when the purpose is to identify which aspects of an employee's work experience are more closely associated with a particular organizational factor.

Drawing on the multidimensional logic of the JSS, the present study examines lecturers' satisfaction with pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication. The term operating conditions is adopted to reflect more directly the administrative, procedural, and organizational conditions under which lecturers perform their academic responsibilities in public universities. Overall job satisfaction and these nine dimensions are examined complementarily to provide both a general and a more differentiated assessment of lecturers' work experiences.

2.3 The Link between Transformational Leadership and Lecturers' Job Satisfaction

A substantial body of research supports the association between transformational leadership and favorable employee attitudes. Judge and Piccolo's (2004) meta-analysis demonstrated the validity of transformational leadership across important follower outcomes, including satisfaction-related outcomes. Transformational leaders may enhance employees' evaluations of work because they provide meaningful direction, professional recognition, individualized support, intellectual stimulation, and opportunities for involvement. These leadership behaviors can strengthen employees' perceptions that their work is valued and that the organization supports their professional development.

Evidence from educational settings provides further support for this relationship. Bogler (2001) found that principals' transformational leadership was associated with teachers' job satisfaction both directly and indirectly through teachers' occupational perceptions. This finding is relevant to academic employees because education professionals frequently exercise considerable professional autonomy and may therefore respond positively to leadership behaviors that emphasize trust, involvement, professional development, and meaningful organizational goals.

Research conducted specifically within higher education also indicates that leadership is an important antecedent of faculty job satisfaction. Alonderiene and Majauskaite (2016) found significant relationships between leadership styles and faculty job satisfaction in higher education institutions. Their findings demonstrated that supervisors' leadership behaviors can meaningfully influence how faculty members evaluate their employment experiences. More comprehensive evidence is provided by Kasalak et al. (2022), whose meta-analysis synthesized research on leadership styles and academic staff job satisfaction in higher education institutions. The results showed a positive overall relationship between leadership and academic staff job satisfaction and identified transformational leadership among the leadership approaches positively associated with satisfaction.

These relationships can be explained through both motivational and relational mechanisms. Inspirational motivation may strengthen lecturers' sense of purpose by connecting their academic responsibilities with broader institutional goals. Intellectual stimulation may promote professional autonomy, creativity, and opportunities for learning. Individualized consideration may enhance lecturers' perceptions of recognition and developmental support, while idealized influence can foster trust and respect toward academic leaders. From the perspective of social exchange theory, employees who experience favorable treatment from leaders may reciprocate through more positive attitudes toward their work and organization (Cropanzano & Mitchell, 2005).

Recent research provides particularly important evidence for the Chinese higher education context. Wang and Zou (2026) directly examined university lecturers in China and found that transformational leadership was positively associated with lecturers' job satisfaction. This finding indicates that the transformational leadership–job satisfaction relationship is relevant within Chinese universities rather than being confined to other occupational or national contexts.

2.4 Transformational Leadership and the Dimensions of Lecturers' Job Satisfaction

Although previous research supports a positive relationship between transformational leadership and overall job satisfaction, less is known about whether transformational leadership is associated with all facets of lecturers' job satisfaction to the same extent. This distinction is theoretically important because the nine satisfaction dimensions represent qualitatively different aspects of employment. Some are closely connected with everyday leadership practices, whereas others are also shaped by broader institutional policies and administrative structures.

Transformational leadership may have particularly direct relevance to supervision and communication. Inspirational motivation requires leaders to communicate goals and institutional direction effectively, while individualized consideration depends on interaction, feedback, and attention to employees' needs (Avolio et al., 1991). Existing higher education research confirms that leadership and supervisory behaviors are important to faculty job satisfaction (Alonderiene & Majauskaite, 2016; Kasalak et al., 2022). Transformational leadership may likewise be associated with satisfaction concerning coworkers and the nature of work, as shared goals, intellectual stimulation, professional autonomy, and collaborative environments can influence how lecturers perceive both academic work and collegial relationships (Leithwood & Jantzi, 2006; Shin & Jung, 2014).

Other facets involve a more complex relationship between leadership and institutional systems. Pay, promotion, fringe benefits, and operating conditions in public universities may be partly determined by formal policies that individual leaders cannot directly control. Nevertheless, leaders can influence how these conditions are experienced through transparent communication, professional support, recognition, access to development opportunities, and the implementation of organizational procedures. Du et al. (2010) demonstrated that management and organizational characteristics were related to multiple dimensions of job satisfaction among Chinese university academics, suggesting that institutional conditions and leadership-related experiences cannot be treated as completely independent.

The analytical value of examining multidimensional educator outcomes is illustrated by Wang et al. (2025), who reported that principals' transformational leadership significantly predicted not only overall teacher job performance but also its task, contextual, and adaptive dimensions in Chinese schools. Although job performance and job satisfaction are conceptually distinct, their study demonstrates the value of examining an overall educator outcome together with its component dimensions. Likewise, Wartenberg et al. (2023) highlighted the importance of greater attention to facet-specific job satisfaction because individual dimensions may display different relationships with workplace factors and outcomes.

Accordingly, this study extends existing higher education research by examining transformational leadership in relation to lecturers' satisfaction with pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication. This analysis addresses RQ2 by determining how transformational leadership relates to each job satisfaction dimension. It further addresses RQ3 by comparing the observed path coefficients to identify dimensions showing relatively stronger or weaker associations with transformational leadership. This multidimensional approach provides a more differentiated understanding of the transformational leadership–job satisfaction relationship than an overall measure alone.

3. Methodology

3.1 Sample and Participants

This study employed a quantitative cross-sectional survey design involving lecturers from public universities in Chongqing, China. A multistage sampling procedure was adopted. In the first stage, five public universities were purposively selected, including a comprehensive university, a science and engineering-oriented university, a normal university, an agricultural university, and a university of finance and economics. The selection of different institutional types enabled the study to incorporate variation in institutional missions and academic work environments within a common regional context.

In the second stage, random sampling was used to select lecturers from the five participating universities. The required sample size was determined with reference to Krejcie and Morgan (1970). Following questionnaire administration and data screening, 653 valid responses were retained for the final analysis, exceeding the minimum sample-size requirement.

3.2 Instrument

Data were collected using a structured questionnaire consisting of measures of transformational leadership and lecturers' job satisfaction. Transformational leadership was measured using a 20-item instrument adapted from the Multifactor Leadership Questionnaire (MLQ 5X) framework developed by Bass and Avolio (1994). The instrument comprised four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, with five items representing each dimension.

Lecturers' job satisfaction was measured using an adapted 36-item Job Satisfaction Survey (JSS) based on Spector (1985). The instrument comprised nine dimensions: pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication, with four items representing each dimension. The original JSS facet operating procedures was expressed as operating conditions to reflect the administrative and organizational conditions experienced by lecturers in the university context.

The wording of both instruments was contextualized to public higher education. All items were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree.

3.3 Data Analysis

This study used quantitative analysis to examine the relationships between transformational leadership and lecturers' job satisfaction. Following data screening and descriptive analysis using IBM SPSS Statistics 27, the measurement and structural models were assessed using SmartPLS 4 through partial least squares structural equation modeling (PLS-SEM).

The reliability and validity of the measurement models were first evaluated. The relationship between transformational leadership and overall lecturers' job satisfaction was then examined. Furthermore, the relationships between transformational leadership and the nine dimensions of lecturers' job satisfaction were assessed through their respective path coefficients.

The significance of the structural relationships was evaluated using a bootstrapping procedure with 5,000 subsamples. Standardized path coefficients (β), t-statistics, p-values, and coefficients of determination (R^2) were examined. The observed path coefficients across the nine dimensions were also compared descriptively to identify relatively stronger and weaker associations with transformational leadership.

4. Results

4.1 Participant Profile and Descriptive Statistics

Among the 653 lecturers, 316 were male (48.4%) and 337 were female (51.6%). In terms of age, 157 lecturers (24.0%) were aged 30 years and below, 160 (24.5%) were aged 31–40 years, 155 (23.7%) were aged 41–50 years, and 181 (27.7%) were above 50 years old. Regarding academic rank, 238 respondents (36.4%) were lecturers, 212 (32.5%) were associate professors, and 203 (31.1%) were professors. For teaching experience, 178 respondents (27.3%) had five years or less of teaching experience, 151 (23.1%) had 6–10 years, 171 (26.2%) had 11–15 years, and 153 (23.4%) had more than 15 years of teaching experience. Regarding the highest degree obtained, 224 respondents (34.3%) held a bachelor's degree, 210 (32.2%) held a master's degree, and 219 (33.5%) held a doctorate (PhD).

Moreover, mean values were used to assess the overall levels of transformational leadership and lecturers' job satisfaction in the participating public universities. The results indicated that transformational leadership was at a medium level ($M = 2.966$, $SD = 0.852$), while lecturers' job satisfaction was also at a medium level ($M = 2.976$, $SD = 0.866$), according to the mean-score interpretation adopted by Hamzah et al. (2016).

4.2 Measurement Model Assessment

The measurement model was assessed using PLS-SEM to examine reliability, convergent validity, and discriminant validity. For transformational leadership, the outer loadings of the four dimensions ranged from 0.738 to 0.832, Cronbach's alpha from 0.849 to 0.862, composite reliability (CR) from 0.893 to 0.901, and AVE from 0.625 to 0.645. For lecturers' job satisfaction, outer loadings across the nine dimensions ranged from 0.789 to 0.866, Cronbach's alpha from 0.822 to 0.867, CR from 0.882 to 0.909, and AVE from 0.652 to 0.715. All values satisfied the recommended criteria of loadings and reliability above 0.70 and AVE above 0.50 (Hair et al., 2019).

Discriminant validity was satisfactory, with HTMT values among the lower-order constructs ranging from 0.386 to 0.884, below the recommended threshold of 0.90 (Henseler et al., 2015). The higher-order constructs were further assessed using the disjoint two-stage approach (Sarstedt et al., 2019). The loadings ranged from 0.855 to 0.876 for overall transformational leadership and from 0.817 to 0.871 for overall lecturers' job satisfaction. As shown in Table 1, both higher-order constructs also demonstrated satisfactory reliability and convergent validity. The HTMT value between overall transformational leadership and overall lecturers' job satisfaction was 0.554. Thus, the overall measurement model demonstrated satisfactory reliability and validity.

Table 1. Measurement Model Assessment

Construct	Cronbach's α	CR	AVE	Loading Range
Transformational Leadership				
Idealized Influence (II)	0.860	0.899	0.641	.768–.825
Inspirational Motivation (IM)	0.862	0.901	0.645	.782–.821
Intellectual Stimulation (IS)	0.849	0.893	0.625	.741–.823
Individualized Consideration (IC)	0.853	0.895	0.631	.738–.832
Lecturers' Job Satisfaction				
Pay (PAY)	0.844	0.895	0.682	.793–.849
Promotion (PRO)	0.851	0.900	0.692	.807–.866
Supervision (SUP)	0.843	0.895	0.681	.791–.845
Fringe Benefits (FB)	0.826	0.885	0.657	.800–.827
Contingent Rewards (CR)	0.831	0.887	0.663	.795–.858
Operating Conditions (OCN)	0.822	0.882	0.652	.789–.842
Coworkers (COW)	0.850	0.899	0.690	.814–.851
Nature of Work (NW)	0.836	0.890	0.670	.789–.846

Construct	Cronbach's α	CR	AVE	Loading Range
Communication (COM)	0.867	0.909	0.715	.825–.856
Higher-Order Constructs				
Overall Transformational Leadership	0.889	0.923	0.750	.855–.876
Overall Lecturers' Job Satisfaction	0.952	0.959	0.722	.817–.871

4.3 Structural Model Assessment

The structural model was assessed to examine the relationship between transformational leadership and lecturers' job satisfaction. As shown in Figure 1, transformational leadership was positively associated with overall lecturers' job satisfaction ($\beta = 0.511$, $t = 17.592$, $p < .001$). The R^2 value was 0.261, indicating that transformational leadership explained 26.1% of the variance in overall lecturers' job satisfaction.

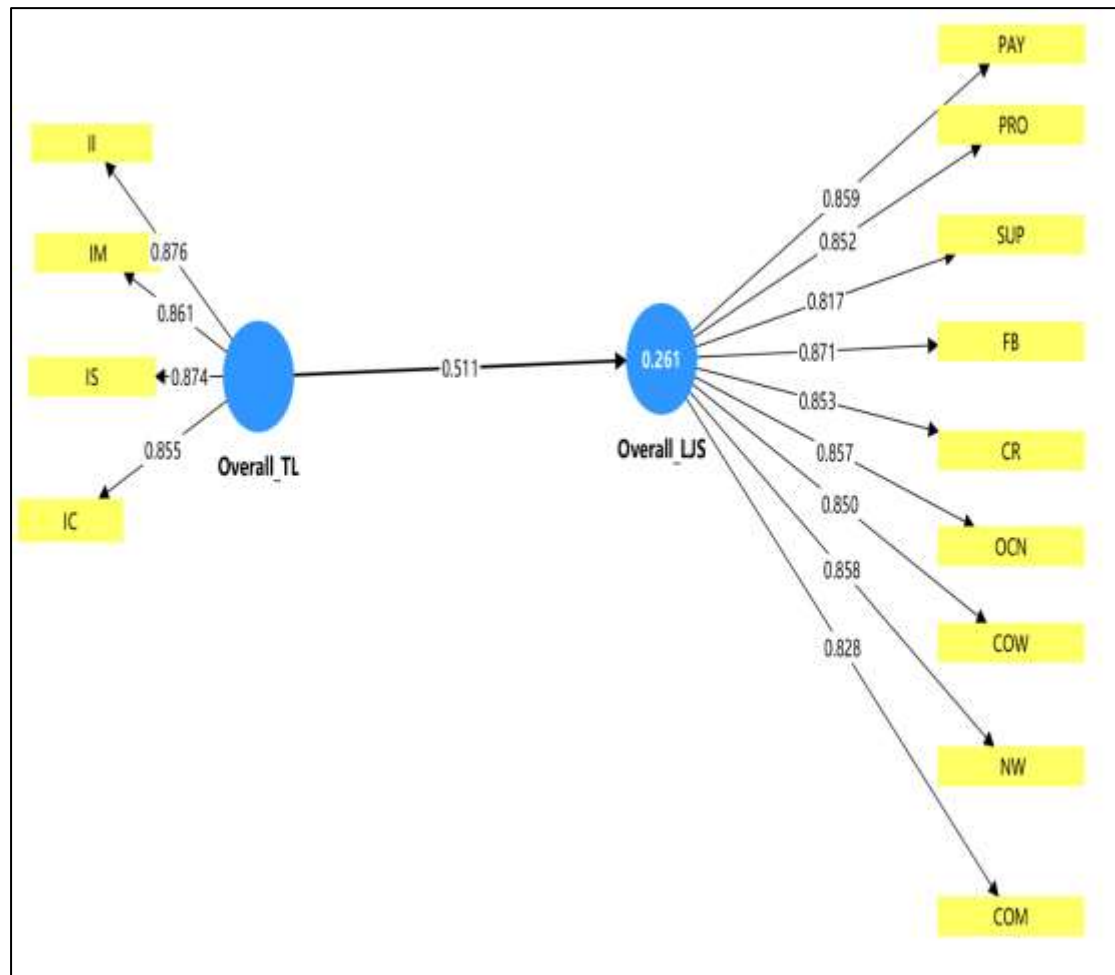


Figure 1. Structural Model of Overall Transformational Leadership and Overall Lecturers' Job Satisfaction

The relationships between transformational leadership and the nine dimensions of lecturers' job satisfaction were also examined. As shown in Figure 2 and Table 2, transformational leadership was positively associated with all nine dimensions, with standardized path coefficients ranging from $\beta = 0.409$ to $\beta = 0.453$ (all $p < .001$). The explained variance ranged from 16.7% for promotion ($R^2 = 0.167$) to 20.5% for communication ($R^2 = 0.205$). The model fit was good, $\chi^2(1) = 1.94$, $p = 0.163$, CFI = 0.995, RMSEA = 0.025.

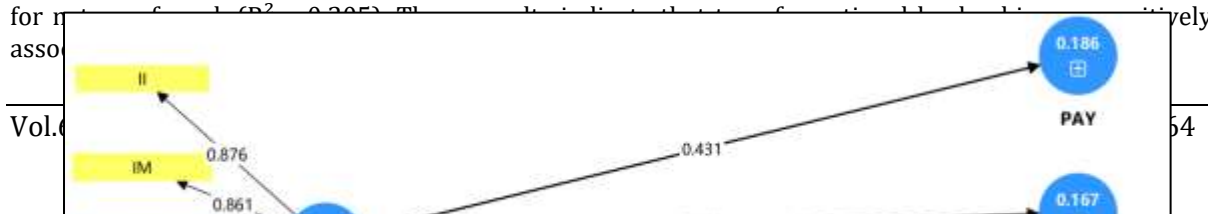


Figure 2. Structural Model of Transformational Leadership and Dimensions of Lecturers' Job Satisfaction

The detailed structural model results are presented in Table 2. All nine dimensional relationships were positive and statistically significant, with t-values ranging from 12.199 to 14.736. Taken together, the results show that transformational leadership was associated not only with lecturers' overall job satisfaction but also consistently with the different aspects of their job satisfaction.

Table 2. Structural Model Results

Structural Path	β	t	p	R ²
Overall TL → Overall LJS	0.511	17.592	< .001	0.261
Overall TL → Pay	0.431	13.384	< .001	0.186
Overall TL → Promotion	0.409	12.199	< .001	0.167
Overall TL → Supervision	0.441	14.174	< .001	0.195
Overall TL → Fringe Benefits	0.440	14.033	< .001	0.194
Overall TL → Contingent Rewards	0.425	12.942	< .001	0.180
Overall TL → Operating Conditions	0.422	12.943	< .001	0.178
Overall TL → Coworkers	0.437	13.577	< .001	0.191
Overall TL → Nature of Work	0.453	14.736	< .001	0.205
Overall TL → Communication	0.447	13.927	< .001	0.200

4.4 Comparison of Job Satisfaction Dimensions

To address the relative strength of the associations across the dimensions of lecturers' job satisfaction, the standardized path coefficients reported in Table 2 were compared descriptively. Nature of work exhibited the largest observed coefficient ($\beta = 0.453$), followed by communication ($\beta = 0.447$), supervision ($\beta = 0.441$), and fringe benefits ($\beta = 0.440$). In comparison, operating conditions ($\beta = 0.422$) and promotion ($\beta = 0.409$) showed relatively smaller coefficients, with promotion exhibiting the smallest observed association.

Overall, the coefficients ranged from 0.409 to 0.453, indicating modest variation in the strength of the associations across the nine dimensions. These comparisons are descriptive and should not be interpreted as statistically significant differences between the individual path coefficients.

5. Discussion

The structural model provided clear evidence that transformational leadership was positively related to lecturers' overall job satisfaction. Transformational leadership had a significant positive relationship with overall lecturers' job satisfaction ($\beta = 0.511$, $p < .001$), accounting for 26.1% of its variance. This finding suggests that lecturers who perceive stronger transformational leadership behaviors from university leaders are more likely to evaluate their jobs positively. The result is consistent with previous research demonstrating the relevance of transformational leadership to employee attitudes and job satisfaction (Judge & Piccolo, 2004), as well as evidence from educational settings showing that transformational leadership is associated with more favorable work-related outcomes among educators (Bogler, 2001). More specifically, the finding supports recent evidence from Chinese higher education that leadership style is meaningfully related to lecturers' job satisfaction (Wang & Zou, 2026), while also corresponding with the meta-analytic evidence of Kasalak et al. (2022), who found a positive relationship between leadership styles and academic staff job satisfaction in higher education institutions.

This relationship can also be interpreted through social exchange theory. Transformational leaders communicate an attractive vision, recognize individual needs, encourage intellectual development, and provide professional and socioemotional support. Such leadership behaviors may be interpreted by lecturers as organizational investment in their professional growth and well-being. In turn, lecturers may respond with more favorable attitudes toward their work and institution. This reciprocal mechanism is consistent with the principles of social exchange theory, according to which supportive and valued treatment can generate positive employee responses (Cropanzano & Mitchell, 2005). In universities, where academic work depends heavily on professional autonomy, intellectual engagement, recognition, collegial interaction, and access to institutional support, these leadership behaviors may be particularly relevant. Transformational leadership should therefore not be understood merely as a set of managerial techniques; rather, it can shape lecturers' perceptions of whether their institution values their contribution and supports their professional development.

A further contribution of this study lies in moving beyond overall job satisfaction. Transformational leadership showed significant positive relationships with all nine dimensions of lecturers' job satisfaction: pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication. The standardized coefficients ranged from 0.409 to 0.453, indicating that the relationship was not concentrated in only one or two aspects of lecturers' work. This finding is consistent with the multidimensional conceptualization of job satisfaction underlying the Job Satisfaction Survey, which treats satisfaction as an evaluation of several distinguishable facets rather than as a single undifferentiated attitude (Spector, 1985). It also accords with research on academics showing that job satisfaction emerges from the interaction of intrinsic work experiences and extrinsic organizational conditions (Du et al., 2010; Shin & Jung, 2014). The present results therefore provide a more differentiated understanding of transformational leadership by showing that its relevance extends across professional, relational, and organizational aspects of academic employment.

The descriptive comparison of the nine standardized coefficients provides further insight into the multidimensional pattern. Nature of work showed the largest observed coefficient ($\beta = 0.453$), followed by communication ($\beta = 0.447$), supervision ($\beta = 0.441$), and fringe benefits ($\beta = 0.440$), whereas operating conditions ($\beta = 0.422$) and promotion ($\beta = 0.409$) showed relatively smaller coefficients. One plausible explanation is that transformational leadership is experienced most directly through aspects of academic work that leaders can influence through everyday interaction, such as communicating institutional goals, supporting lecturers, recognizing professional contributions, encouraging autonomy, and reinforcing the meaningfulness of teaching and research. Nature of work, communication, and supervision are therefore closely connected to lecturers' immediate experiences of leadership. By contrast, promotion and some operating conditions may be more strongly constrained by formal institutional policies, rank structures, evaluation procedures, resource allocation systems, and regulatory requirements. Individual leaders may influence lecturers' perceptions of these systems but may have less direct discretion over them. This

interpretation is compatible with previous research showing that academics' satisfaction is shaped by both the intrinsic character of academic work and broader organizational conditions (Du et al., 2010; Shin & Jung, 2014). Nevertheless, the differences among the coefficients were modest, and the comparisons are descriptive; they do not imply statistically significant differences between the individual path coefficients. These findings have both theoretical and practical implications. Theoretically, the study extends research on transformational leadership and job satisfaction in higher education by demonstrating that the relationship is observable not only at the overall construct level but also across nine specific facets of lecturers' job satisfaction. This is important because an overall job satisfaction score can conceal differences among particular work experiences. By integrating an overall higher-order model with a multidimensional analysis, the study provides evidence that transformational leadership has a broad association with lecturers' job attitudes rather than being relevant to only a limited aspect of satisfaction. The study also adds evidence from Chinese public universities to a literature that has frequently examined transformational leadership in school contexts or treated academic job satisfaction as an overall outcome. In this respect, the findings complement recent Chinese evidence on lecturers' job satisfaction (Wang & Zou, 2026) and multidimensional educator outcomes (Wang et al., 2025).

At the practical level, university leaders should recognize that improving lecturers' job satisfaction requires more than attention to a single employment condition. Transformational leadership practices can be strengthened through clear communication of institutional direction, recognition of academic contributions, individualized professional support, encouragement of innovative teaching and research, and meaningful involvement of lecturers in university development. The relatively large observed relationships with nature of work, communication, and supervision suggest particular value in ensuring that lecturers experience academic work as meaningful and professionally supported and that communication between leaders and academic staff is open and constructive. At the same time, the positive relationships involving pay, promotion, fringe benefits, contingent rewards, and operating conditions indicate that leadership behavior should be accompanied by transparent and credible institutional systems. Transformational leadership should not be treated as a substitute for appropriate remuneration, fair promotion procedures, reasonable workloads, or supportive working conditions; rather, leadership and institutional policy should operate together to improve lecturers' overall work experiences.

Several limitations should be considered. First, the study was conducted among lecturers from five purposively selected public universities in Chongqing. Although the participating institutions represented different university types, the findings should not be generalized to all public universities in China without caution. Future studies could include universities from different provinces, institutional tiers, and governance contexts to assess the broader applicability of the findings. Second, the cross-sectional design limits conclusions about temporal or causal relationships. Longitudinal research could examine whether changes in transformational leadership are followed by changes in lecturers' job satisfaction over time. Third, the study relied on self-reported survey data, and future research could complement quantitative evidence with interviews or other qualitative approaches to clarify how lecturers interpret particular leadership behaviors. Finally, although the standardized coefficients across the nine job satisfaction dimensions were compared descriptively, the study did not formally test whether the differences between these coefficients were statistically significant. Future research specifically concerned with comparative effect strength could employ bootstrap-based coefficient-difference procedures. Such extensions would further clarify when, how, and under what institutional conditions transformational leadership contributes to lecturers' job satisfaction in higher education.

6. Conclusion

This study examined the relationship between transformational leadership and lecturers' job satisfaction in public universities in Chongqing, China. The findings showed that transformational leadership was positively associated with overall lecturers' job satisfaction and with all nine dimensions of job satisfaction. Among the dimensions, nature of work and communication showed relatively larger observed associations, while promotion and operating conditions showed comparatively smaller associations. Overall, the study provides evidence that transformational leadership is relevant to both lecturers' overall job satisfaction and their specific work experiences. The findings highlight the importance of clear communication, professional support, recognition, and constructive leader-lecturer relationships in public universities. At the same time, transformational leadership should not be treated as a substitute for appropriate remuneration, fair promotion procedures, reasonable workloads, or supportive working conditions; leadership practices and institutional systems should operate together to improve lecturers' work experiences. Because the study used a cross-sectional design and focused on five public universities in Chongqing, the findings should be interpreted as associations rather than causal effects and generalized with caution. Future research could include universities from different regions and institutional types and

use longitudinal or mixed-method designs to clarify how leadership relates to specific dimensions of academic job satisfaction over time.

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Appendix. Questionnaire

The questionnaire used in this study is presented below.

Section A: Demographic Profile

Please tick (✓) the appropriate option.

1. Gender: ☐ Male ☐ Female
2. Age: ☐ 30 years and below ☐ 31–40 years ☐ 41–50 years ☐ Above 50 years
3. Academic Rank: ☐ Lecturer ☐ Associate Professor ☐ Professor
4. Years of Teaching Experience: ☐ 5 years and below ☐ 6–10 years ☐ 11–15 years ☐ More than 15 years
5. Highest Degree Obtained: ☐ Bachelor's degree ☐ Master's degree ☐ Doctoral degree

Section B: Transformational Leadership

The following statements describe the leadership practices of your leaders in your university. Please indicate the extent to which you agree or disagree with each statement.

Response scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Agree, 4 = Agree, 5 = Strongly Agree.

No.	Item Statement	1	2	3	4	5
Idealized Influence						
1	My leader acts as a role model of academic integrity.					
2	My leader puts collective interests above personal gains.					
3	My leader earns respect through ethical behavior.					
4	My leader demonstrates consistency between words and actions.					
5	My leader instills pride in being associated with the team.					
Inspirational Motivation						
6	My leader communicates a clear and inspiring vision.					
7	My leader inspires faculty members to strive for excellence in their work.					
8	My leader encourages continuous professional development among faculty members.					
9	My leader promotes optimism and confidence even in difficult times.					
10	My leader fosters a strong sense of teamwork and collaboration among faculty members.					
Intellectual Stimulation						
11	My leader encourages faculty members to explore new ideas in teaching, research, and academic practice.					
12	My leader encourages faculty members to question conventional ways of teaching and academic work.					
13	My leader supports creative problem-solving in teaching, research, and academic affairs.					

No.	Item Statement	1	2	3	4	5
14	My leader values teachers' suggestions regarding department, college, or university improvement.					
15	My leader stimulates faculty members' interest in new resources, methods, and technologies for teaching and academic work.					
Individualized Consideration						
16	My leader pays attention to each faculty member's individual needs.					
17	My leader provides personalized guidance and constructive feedback to faculty members.					
18	My leader is approachable and available when faculty members need help.					
19	My leader supports faculty members' participation in professional training, workshops, and academic development activities.					
20	My leader helps faculty members balance work responsibilities and personal life.					

Section C: Lecturers' Job Satisfaction

The following statements describe different aspects of your job and work experience in your university. Please indicate the extent to which you agree or disagree with each statement.

Response scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Agree, 4 = Agree, 5 = Strongly Agree.

No.	Item Statement	1	2	3	4	5
Pay						
1	I feel I am paid a fair amount for the work I do in my university.					
2	Salary increases in my university are adequate and occur regularly.					
3	When I think about my pay, I feel that my university sufficiently values my contribution.					
4	I am satisfied with my opportunities for salary increases in my university.					
Promotion						
5	There are sufficient opportunities for career advancement and promotion (e.g., academic rank, position level, or leadership role) in my university.					
6	Faculty members who perform well have a fair chance of career advancement or promotion in my university.					
7	Faculty members in my university advance in their careers as quickly as they do in comparable institutions.					
8	I am satisfied with my opportunities for career advancement or promotion in my university.					
Supervision						
9	My leader is quite competent in performing his/her role.					
10	My leader treats me fairly.					
11	My leader shows concern for the feelings and needs of faculty members.					
12	I like my leader.					
Fringe Benefits						
13	I am satisfied with the benefits I receive from my university.					

No.	Item Statement	1	2	3	4	5
14	The benefits provided by my university are as good as those offered by most comparable institutions.					
15	The benefits package in my university is fair and equitable.					
16	There are benefits that faculty members in my university should have but currently do not have.					
Contingent Rewards						
17	When I do a good job, I receive the recognition I deserve in my university.					
18	I feel that my work is adequately appreciated in my university.					
19	There are sufficient rewards for faculty members in my university.					
20	I feel that my efforts are rewarded appropriately in my university.					
Operating Conditions						
21	Administrative rules and procedures in my university support me in doing my job well.					
22	Administrative procedures in my university support me in doing a good job.					
23	I have a manageable workload in my university.					
24	I have a manageable amount of paperwork and non-teaching administrative tasks.					
Coworkers						
25	I like the colleagues I work with in my university.					
26	My colleagues in my university are competent and contribute effectively to our work.					
27	I enjoy working with my colleagues in my university.					
28	There is a harmonious and cooperative atmosphere in my workplace.					
Nature of Work						
29	I feel that my work in the university is meaningful.					
30	I like the work I do in my university.					
31	I feel a sense of pride in doing my work in the university.					
32	My work in the university is enjoyable.					
Communication						
33	Communication seems good within my university.					
34	The goals of my university are clear to me.					
35	I feel well-informed about what is going on in my university.					
36	Work assignments in my university are clearly explained.					