Transformational Leadership Unleashed: Elevating Faculty Satisfaction through Psychological Capital

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Abstract

This study investigates the influence of transformational leadership on job satisfaction, with a specific focus on the mediating role of psychological capital in private universities in Guangxi. The main hypotheses are that transformational leadership directly affects job satisfaction and that psychological capital partially mediates this relationship. Participants included 460 teachers from 12 private universities in Guangxi, China, selected by multi-stage sampling. The research design is quantitative, employing structured questionnaires. Instruments used include validated scales for transformational leadership significantly predicts job satisfaction, and psychological capital also significantly predicts job satisfaction while mediating the relationship between transformational leadership and job satisfaction. These results align with earlier research, confirming the positive impact of transformational leadership skills and foster psychological capital among teachers to enhance job satisfaction and teaching quality. This offers practical guidance for the management and reform of private colleges and universities in Guangxi, with implications for future research to explore additional mediators or moderators and employ longitudinal designs to further understand these relationships.

Keywords: Transformational Leadership, Job Satisfaction, Psychological Capital, Faculty.

Introduction

China's ongoing economic reforms and social progress have elevated private education as a critical supplement to public education, significantly promoting balanced regional development and addressing diverse societal needs (Zhang, 2018). This trend is particularly clear in the Guangxi Zhuang Autonomous Region, where the proliferation of private universities has become integral to the regional higher education system (Li, 2019). However, these institutions grapple with challenges related to stability and teaching quality, with job satisfaction appearing as a pivotal factor influencing both (Wang, 2020).

Transformational leadership theory, which emphasizes leaders' ability to inspire and motivate subordinates to achieve higher levels of performance and satisfaction through encouragement and example, has gained substantial attention in educational management (Bass, 1990). Numerous studies have proved the positive impact of transformational leadership on job satisfaction and teaching effectiveness (Grissom & Loeb, 2011; Sun et al., 2012). However, research on the implementation of transformational leadership in the context of Chinese private universities remains scarce (Zheng, 2017).

The importance of this problem lies in its theoretical and practical implications. Theoretically, understanding how transformational leadership can enhance job satisfaction in private universities can expand the existing body of knowledge in educational management and leadership studies. It can provide insights into the mechanisms through which leadership styles affect employee outcomes in diverse cultural and institutional settings (Khan et al., 2019).

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Practically, improving job satisfaction among faculty in private universities can lead to enhanced teaching quality, increased employee retention, and overall institutional stability. This, in turn, can contribute to better educational outcomes for students and a more robust higher education sector. Given the role of psychological capital—a state characterized by self-efficacy, hope, optimism, and resilience—in influencing job performance and satisfaction (Luthans & Youssef-Morgan, 2007a, 2007b), it is crucial to investigate its potential mediating role between transformational leadership and job satisfaction.

In the educational field, psychological capital has been shown to positively affect work engagement and teaching quality (Chen & Lee, 2014). However, its role as a mediator in the relationship between transformational leadership and job satisfaction, especially within private universities in Guangxi, remains unexplored. Addressing this gap can provide actionable strategies for university administrators to enhance job satisfaction through targeted leadership development and psychological capital interventions (Khan et al., 2014).

This study aims to investigate how transformational leadership in private universities in Guangxi influences job satisfaction by enhancing psychological capital. Using a quantitative research approach, we will conduct a questionnaire survey among teachers in these institutions to analyze the relationships between transformational leadership, psychological capital, and job satisfaction. The findings are expected to provide fresh insights and strategic recommendations for the management of private universities, offering new empirical evidence to support the development of effective educational policies and practices.

Literature Review

Transformational Leadership

Transformational leadership is a well-researched leadership style within organizational behavior and leadership studies, characterized by leaders who inspire and motivate their followers to achieve higher performance levels and commitment beyond their self-interests. The concept was first introduced by Downton (1973) and further elaborated by Burns (1978), who defined transformational leadership as a process where leaders and followers elevate each other to higher levels of morality and motivation. Burns contrasted this with transactional leadership, which is based on a quid-pro-quo relationship between leaders and followers. Burns emphasized moral elevation, individualized consideration, and shared goals as key dimensions.

Building on Burns' work, Bass (1985) added the concept of transactional leadership as a contrast and further defined transformational leadership as a process that elevates both leaders and followers' needs and aspirations, resulting in positive changes in attitudes, values, and expectations. Bass identified four key components of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

Conger and Kanungo (1988) described transformational leadership as a process of influence where leaders encourage subordinates to transcend their interests through personal charisma and role modeling. Tichy and Devanna (1986) highlighted the role of transformational leaders in shaping and changing organizational culture and fostering innovation. Leithwood et al. (1999) focused on the educational context, suggesting that transformational leadership can improve school performance and student learning outcomes through vision building, talent cultivation, professional communities, and teamwork.

Recent research by Bai and Li (2021) defines transformational leadership as a style that inspires individuals to exceed ordinary responsibilities to achieve greater common goals. They identified five dimensions: leaders' charm, self-confidence, charisma, intellectual stimulation, and individualized consideration.

Psychological Capital

Psychological capital is another critical factor in organizational behavior, encompassing self-efficacy, hope, optimism, and resilience. Snyder (2002) described it as a personal resource, while Jensen and Luthans (2006)

defined it as "an individual's positive core state." Dweck's growth mindset concept closely relates to psychological capital, emphasizing the development of one's abilities (Dweck, 2006). Luthans et al. (2007a, 2007b) posited that psychological capital includes measurable, developable, and manageable state variables that enhance individual performance and satisfaction.

Avey et al. (2009) expanded psychological capital to include self-efficacy, hope, optimism, resilience, and integrity, asserting its positive impact on job performance. Carmeli (2010) also highlighted psychological capital's predictive power for work attitudes and behavior. Neck and Manz (2010) included additional qualities such as passion, self-esteem, and innovation ability.

Reichard (2011) defined psychological capital as "an individual's positive psychological state in the face of challenges," and Hurley and Hurley (2011) emphasized its role in adapting to workplace challenges and continuous learning. Luthans et al. (2015) emphasized psychological capital's exploitability, consisting of self-confidence, hope, optimism, and resilience. They later linked it to employee happiness (Luthans & Youssef-Morgan, 2017). Zheng et al. (2023) considered psychological capital an internal psychological energy that can be developed and managed to enhance individual growth and development.

Job Satisfaction

Job satisfaction, defined by Adams (1963) as the alignment between employees' expectations and actual income, is influenced by fairness theory, balancing input and return. Herzberg et al. (1959) proposed the two-factor theory, distinguishing between motivators (sense of accomplishment, responsibility) and hygiene factors (salary, work environment). Vroom (1964) described job satisfaction as an emotional response to one's job role, encompassing job itself, promotion opportunities, and colleague relations.

Spreitzer (1995) emphasized psychological empowerment's role in job satisfaction, including job meaning, self-efficacy, autonomy, and influence. Ho and Williams (2003) viewed job satisfaction as a positive evaluation of working conditions and environment, including salary, promotion opportunities, and colleague relationships. Day and Sington (2004) added school leaders, student behavior, and parent participation as factors. Siswanto et al. (2022) described job satisfaction as an emotional response to job experiences.

This study builds on the existing scholarship by integrating transformational leadership and psychological capital to explore their combined impact on job satisfaction within private universities in Guangxi, China. Previous research has individually linked transformational leadership and psychological capital to job satisfaction, but this study examines their interplay in a specific context, providing new empirical insights and practical strategies for educational management.

While earlier studies have highlighted the positive effects of transformational leadership and psychological capital independently, this research focuses on their mediating relationship in the context of Chinese private universities. By using quantitative methods and Smart-PLS analysis, this study offers robust empirical evidence and strategic suggestions tailored to this unique educational setting. This approach addresses gaps in the literature and contributes to the broader understanding of leadership and psychological factors in enhancing job satisfaction in educational institutions.

Hypothesis Formulation

Transformational leadership is widely recognized for its positive influence on various organizational outcomes. Shah et al. (2023) proved a significant positive correlation between transformational leadership and psychological capital in the workplace. Similarly, Cai (2017) found that transformational leadership behaviors among head nurses positively predicted nurses' psychological capital and self-efficacy. Studies by Wang (2020), and Mao et al. (2015) consistently report that transformational leadership is positively correlated with psychological capital across different settings. Based on these findings, we hypothesize:

H1: Transformational leadership positively affects psychological capital.

Research has also proved a link between psychological capital and job satisfaction. Shah et al. (2023) showed that psychological capital positively correlates with work attitudes, including job satisfaction and organizational commitment. Studies on different populations, such as kindergarten teachers (Zheng et al., 2023; Lu & Luo, 2021) and female nurses (Shu, 2022), further support this positive correlation. Therefore, we hypothesize:

H2: Psychological capital positively affects job satisfaction.

Transformational leadership itself has been linked to job satisfaction. Mgaiwa et al. (2023) found that university scholars' job satisfaction was significantly influenced by their deans' transformational leadership styles. Similar findings were reported by Shah et al. (2023), Siswanto et al. (2022), Specchia et al. (2021), and Hilton et al. (2021). Consequently, we hypothesize:

H3: Transformational leadership positively affects job satisfaction.

Finally, there is evidence suggesting that psychological capital mediates the relationship between transformational leadership and job satisfaction. Jia (2020) found that psychological capital partially mediated the positive effects of principals' transformational leadership on teachers' job satisfaction. Sui et al. (2012) reported similar mediating effects of psychological capital between transformational leadership and subordinates' job performance and satisfaction. Hence, we hypothesize:

H4: Psychological capital mediates the relationship between transformational leadership and job satisfaction.

Method

This study employs a quantitative research design using survey questionnaires to collect data from full-time teachers at private universities in Guangxi. The data will be analyzed using Smart-PLS to test the hypothesized relationships. Confirmatory factor analysis and PLS structural modeling will be employed to explore the direct and indirect effects of transformational leadership on job satisfaction, mediated by psychological capital.

Participants

The study analyzed 460 valid samples, focusing on major demographic characteristics and key attributes relevant to the research. The gender distribution comprised 46.1% male and 53.9% female teachers. Age distribution indicated that a majority of participants were between 26–45 years. Teaching experience varied, with notable groups having 6–15 years of experience. Educational qualifications showed that 82% of the teachers held master's degrees. Regarding professional titles, the majority were at the intermediate or deputy senior level. Socioeconomic status, as reflected in salary levels, indicated that most teachers earned between 4,001–8,000 yuan.

Participants for this study were selected from 12 private universities in Guangxi, China, using a multi-stage sampling method to ensure a representative sample. Out of 500 distributed questionnaires, 460 were returned completed, yielding a response rate of 92%. Participation was voluntary, with individuals self-selecting to complete the survey. Data were collected in various settings within the universities, including

faculty offices, staff rooms, and common areas, over a period from March to May 2023, allowing for thorough data gathering without the influence of seasonal academic pressures. No monetary payments or incentives were offered for participation. Agreements were established through informed consent forms that detailed the study's purpose, procedures, and confidentiality assurances, and participants were informed that they could withdraw from the study at any time without consequences.

The study adhered to strict ethical standards to ensure the protection of participants' rights and well-being. Institutional Review Board approval was obtained from Suan Sunandha Rajabhat University prior to the commencement of the study. The ethical standards met included informed consent, confidentiality of participant information, and the right to withdraw from the study at any point. Additionally, safety monitoring procedures were put in place to address any concerns or issues that might arise during the data collection process.

Measures

To ensure the quality and reliability of measurements, this study utilizes well-established instruments for assessing transformational leadership, psychological capital, and job satisfaction. The data collectors underwent thorough training to standardize the administration of the surveys and minimize potential biases. Multiple observations were incorporated to enhance the reliability of the data.

Transformational leadership is assessed using a 20-item scale developed by Jia (2020) and Bass and Avolio (1992), among others. This scale encompasses four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Each item is measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The transformational leadership scale by Bass and Avolio (1992) and Jia (2020) has demonstrated reliability and validity across various studies. These validated instruments provide a solid foundation for the study, ensuring that the measurements are accurate and reliable.

Psychological capital is measured using a 20-item scale developed by Li and Shi (2005), and Luthans et al. (2007). This scale includes four dimensions: self-efficacy, hope, resilience, and optimism. Each item is rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The psychological capital scale by Luthans et al. (2007) has been widely used and validated in prior studies, demonstrating strong psychometric properties, including high reliability and construct validity.

Job satisfaction is evaluated through a 25-item scale developed by Jia (2020). This instrument measures five dimensions: work, salary, colleagues, supervisor, and promotion. Respondents rate each item on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The job satisfaction scale by Jia (2020) and colleagues has undergone rigorous validation processes, ensuring its reliability and appropriateness for assessing job satisfaction in educational settings.

The instruments used in this study are based on validated scales with strong psychometric properties. The transformational leadership scale, the psychological capital scale, and the job satisfaction scale have all been validated and widely adopted in previous research. This ensures that the measurements are accurate and reliable, providing a solid foundation for the study. The scales exhibit excellent content validity, with item-level content validity indices (I-CVIs) of 0.78 or higher, a scale-level content validity index for universal agreement (S-CVI/UA) of 0.8, and a scale-level content validity index for the average (S-CVI/Ave) of 0.9 (Shi et al., 2012).

In summary, the use of validated instruments, comprehensive training for data collectors, and the inclusion of multiple observations collectively ensure high-quality and reliable measurements throughout the study. These efforts underscore the commitment to accurately reflecting the true nature of the relationships between transformational leadership, psychological capital, and job satisfaction, providing a robust basis for the research.

Data Analysis

Participants were excluded from the analysis if their responses were incomplete or inconsistent. Specifically, responses that missed more than 20% of the questionnaire items were excluded to ensure data integrity. Additionally, participants who provided the same answer for all items in a scale, indicating potential lack of engagement or understanding, were also excluded.

Missing data were addressed using multiple imputation techniques. Data were considered missing at random, and the missing values were imputed using the expectation-maximization algorithm. This method preserves the overall distribution and relationships in the data, allowing for more accurate analysis.

Statistical outliers were identified using the Z-score method, where responses with a Z-score greater than ± 3 were considered outliers. Outliers were reviewed for potential data entry errors or unusual response patterns. If an outlier was determined to be a legitimate but extreme response, it was retained; otherwise, it was corrected or excluded from the analysis.

Data distributions were analyzed using descriptive statistics, including measures of central tendency (mean, median) and variability (standard deviation, range). Skewness and kurtosis were calculated to assess the normality of the data distributions. Histograms and Q-Q plots were also used to visually inspect the data distributions.

If data distributions deviated significantly from normality, appropriate data transformations, such as logarithmic or square root transformations, were applied to normalize the data. These transformations help meet the assumptions of parametric statistical tests and improve the validity of the results.

Primary hypotheses were evaluated using structural equation modeling (SEM) with SmartPLS 4. This approach allows for the simultaneous testing of multiple relationships and the mediation effects. Bootstrapping with 5000 resamples was used to determine the significance of the direct and indirect effects, thereby protecting against experiment-wise error.

Results

Measurement Model

To evaluate the reliability and validity of the Partial Least Squares (PLS) model, composite reliabilities and the average variance extracted (AVE) were calculated (Barclay et al., 1995; Chin, 1998). According to Fornell and Larcker (1981), a composite reliability of .70 or higher is considered acceptable. The AVE, which measures the variance captured by the indicators relative to the measurement error, should be greater than .50 to confirm the validity of a structure (Barclay et al., 1995). The results indicate that this study achieves sufficient composite reliability and AVE values, as detailed in Table 1.

| First order | Item | λ | α | CR | AVE | Second order | λ | α | CR | AVE |
|----------------|------|------|------|------|------|----------------|------|------|------|------|
| Idealized | II1 | .809 | .864 | .864 | .648 | Transformation | .820 | .928 | .886 | .660 |
| Influence | II2 | .815 | | | | al Leadership | | | | |
| | II3 | .797 | | | | | | | | |
| | II4 | .817 | | | | | | | | |
| | II5 | .786 | | | | | | | | |
| Individualized | IC1 | .814 | .86 | .861 | .641 | | .805 | - | | |
| Consideration | IC2 | .821 | | | | | | | | |
| | IC3 | .776 | | | | | | | | |
| | IC4 | .805 | | | | | | | | |
| | IC5 | .788 | | | | | | | | |
| Inspirational | IM1 | .768 | .844 | .847 | .617 | | .802 | | | |
| Motivation | IM2 | .853 | | | | | | | | |

| Table 1 Reliability and | Convergent Validity |
|-------------------------|---------------------|
|-------------------------|---------------------|

| | | | | | • | | DOI: <u>https</u> | ://doi.org/ | 10.62754/ | joe.v3i3.3357 |
|---------------|----------|------|------|-------|-------|------------------|-------------------|-------------|-----------|---------------|
| | IM3 | .72 | | | | | | | | |
| | IM4 | .803 | | | | | | | | |
| | IM5 | .778 | | | | | | | | |
| Intellectual | IS1 | .859 | .876 | .879 | .669 | | .822 | | | |
| Stimulation | IS2 | .846 | | | | | | | | |
| | IS3 | .804 | | | | | | | | |
| | IS4 | .78 | | | | | | | | |
| | IS5 | .8 | | | | | | | | |
| Норе | H1 | .907 | .923 | .923 | .765 | Psychological | .841 | .943 | .890 | .670 |
| nope | H2 | .858 | | ., 23 | ., 05 | Capital | .011 | ., 15 | .020 | .010 |
| | H3 | .865 | | | | Capitai | | | | |
| | H4 | .878 | | | | | | | | |
| | H5 | .865 | | | | | | | | |
| | | | 01 | 012 | 727 | - | 004 | | | |
| Optimism | 01 | .898 | .91 | .912 | .737 | | .804 | | | |
| | 02 | .854 | | | | | | | | |
| | O3 | .848 | | | | | | | | |
| | O4 | .877 | | | | | | | | |
| | O5 | .813 | | | | | | | | |
| Resilience | R1 | .804 | .869 | .869 | .656 | | .821 | | | |
| | R2 | .798 | | | | | | | | |
| | R3 | .815 | | | | | | | | |
| | R4 | .811 | | | | | | | | |
| | R5 | .821 | | | | | | | | |
| Self-Efficacy | SE1 | .894 | .895 | .9 | .706 | | .808 | | | |
| | SE2 | .871 | | | | | | | | |
| | SE3 | .828 | | | | | | | | |
| | SE4 | .782 | | | | | | | | |
| | SE5 | .823 | | | | | | | | |
| Colleagues | C1 | .856 | .889 | .889 | .692 | Job Satisfaction | .776 | .958 | .919 | .694 |
| | C2 | .828 | | | | , | | | | |
| | C3 | .799 | | | | | | | | |
| | C4 | .82 | | | | | | | | |
| | C5 | .856 | | | | | | | | |
| Promotion | P1 | .784 | .854 | .859 | .632 | - | .884 | | | |
| 110111011011 | P2 | .854 | 054 | .057 | .052 | | .00+ | | | |
| | P3 | .721 | | | | | | | | |
| | P4 | .809 | | | | | | | | |
| | P5 | .803 | | | | | | | | |
| <u>Calare</u> | | .865 | .926 | .927 | .773 | - | .835 | | | |
| Salary | S1 S2 | | .926 | .927 | .//3 | | .835 | | | |
| | | .869 | _ | | | | | | | |
| | S3 | .886 | | | | | | | | |
| | S4 | .899 | | | | | | | | |
| | S5 | .875 | | | | _ | | | | |
| Superiors | SU1 | .848 | .896 | .897 | .707 | | .842 | | | |
| | SU2 | .811 | | | | | | | | |
| | SU3 | .856 | _ | | | | | | | |
| | SU4 | .866 | | | | | | | | |
| | SU5 | .821 | | | | | | | | |
| Work | W1 | .892 | .935 | .935 | .793 | | .825 | 1 | | |
| | W2 | .902 | | | | | | 1 | | |
| | W3 | .866 | | | | | | | | |
| | W4 | .887 | | | | | | | | |

| | | | I |)OI: <u>https:/</u> | /doi.org/10 | <u>).62754/jo</u> | <u>e.v3i3.3357</u> |
|----|------|--|---|---------------------|-------------|-------------------|--------------------|
| W5 | .906 | | | | | | |

This study also passed the discriminant validity evaluation. The discriminant validity is studied by comparing the correlation between items. The correlation value under the AVEs root of the diagonal structure is higher than that between items (Fornell & Larcker, 1981). The evaluation of discriminant validity is shown in Table 2.

| Table | 2 | Fornell–Larcker Results | |
|-------|---|-------------------------|--|
|-------|---|-------------------------|--|

| | С | Н | II | IC | IM | IS | 0 | Р | R | S | SE | SU | W |
|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| С | .832 | | | | | | | | | | | | |
| Н | .472 | .875 | | | | | | | | | | | |
| II | .457 | .484 | .805 | | | | | | | | | | |
| IC | .383 | .484 | .534 | .801 | | | | | | | | | |
| IM | .429 | .526 | .563 | .530 | .786 | | | | | | | | |
| IS | .434 | .467 | .559 | .560 | .533 | .818 | | | | | | | |
| Ο | .401 | .548 | .464 | .446 | .444 | .405 | .858 | | | | | | |
| Р | .655 | .530 | .494 | .459 | .479 | .463 | .465 | .795 | | | | | |
| R | .438 | .589 | .501 | .426 | .475 | .431 | .567 | .504 | .810 | | | | |
| S | .535 | .482 | .410 | .377 | .384 | .411 | .463 | .679 | .481 | .879 | | | |
| SE | .454 | .577 | .448 | .427 | .437 | .42 | .517 | .513 | .563 | .461 | .840 | | |
| SU | .589 | .487 | .454 | .390 | .471 | .432 | .488 | .705 | .455 | .610 | .464 | .841 | |
| W | .507 | .522 | .453 | .400 | .456 | .474 | .467 | .659 | .491 | .623 | .437 | .605 | .891 |

Note. C = Colleagues, H = Hope, II = Idealized Influence, IC = Individualized Consideration, IM = Inspirational Motivation, IS = Intellectual Stimulation, O = Optimism, P = Promotion, R = Resilience, S = Salary, SE = Self-Efficacy, SU = Superiors, W = Work.

In addition, this study also utilizes the heterotrait-monotrait (HTMT) ratio to analyze discriminant validity. The HTMT ratio of correlation must be less than 1, with a maximum threshold of .85 as recommended by Henseler et al. (2015). The HTMT ratios are presented in Table 3. The results in Tables 2 and 3 meet the criteria for establishing validity, thus confirming the discriminant validity of the measures.

| | С | Η | II | IC | IM | IS | 0 | Р | R | S | SE | SU |
|----|------|------|------|------|------|------|------|------|------|------|------|------|
| Н | .521 | | | | | | | | | | | |
| II | .521 | .542 | | | | | | | | | | |
| IC | .437 | .543 | .618 | | | | | | | | | |
| IM | .496 | .596 | .659 | .621 | | | | | | | | |
| IS | .491 | .519 | .641 | .643 | .618 | | | | | | | |
| 0 | .446 | .597 | .523 | .504 | .506 | .453 | | | | | | |
| Р | .749 | .593 | .571 | .531 | .564 | .531 | .524 | | | | | |
| R | .499 | .656 | .577 | .49 | .554 | .493 | .635 | .582 | | | | |
| S | .589 | .522 | .458 | .421 | .436 | .455 | .505 | .761 | .535 | | | |
| SE | .508 | .633 | .507 | .485 | .499 | .474 | .57 | .581 | .635 | .503 | | |
| SU | .66 | .535 | .514 | .445 | .541 | .487 | .541 | .804 | .515 | .669 | .517 | |
| W | .556 | .561 | .503 | .445 | .512 | .523 | .507 | .735 | .543 | .670 | .476 | .661 |

Table 3 HTMT Ratio for Discriminant Validity

Note. C = Colleagues, H = Hope, II = Idealized Influence, IC = Individualized Consideration, IM = Inspirational Motivation, IS = Intellectual Stimulation, O = Optimism, P = Promotion, R = Resilience, S = Salary, SE = Self-Efficacy, SU = Superiors, W = Work.

Structural Model

The structural model was tested using 5000 bootstraps. To assess common method bias, Harman's single-factor test was employed, revealing that the variance explained by the first principal factor is 36.982%, which is below the critical threshold of 40%. Hence, there are no significant common methodological biases in this study (Harman, 1961). Bootstrap programs were employed to generate T statistics and standard errors (Chin, 1998). The R² value representing the variance explained by the model (Barclay et al., 1995) for psychological capital and job satisfaction were calculated yielded .47 and .537, respectively.

The relationships between these constructs were analyzed through structural model evaluation, following Hair et al. (2018). This process included the development of hypotheses and mediation analysis. The mediation analysis used the bootstrapping method with 5000 bootstraps to determine the P values necessary for analysis (Hair et al., 2019). All predictors in the internal model were examined, and the variance inflation factor was found to be less than 5, indicating no multicollinearity issues (Jos et al., 2014). The next step involved assessing the significance and relevance of the path coefficients. The results of the structural model are presented in Figure 1.

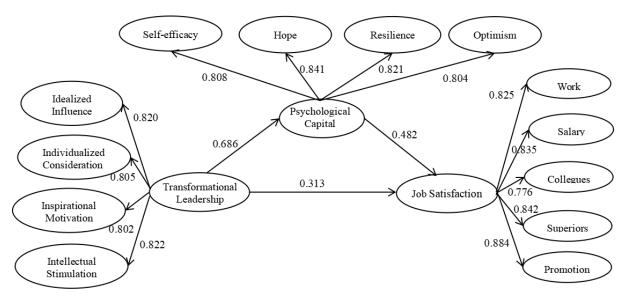


Figure 1 Structural Model

The results reveal that transformational leadership is a significant predictor of job satisfaction, with a standardized beta value of $\beta = .313$ (p < .001), supporting Hypothesis 1. Psychological capital is identified as another significant predictor of job satisfaction, with a standardized beta value of $\beta = .482$ (p < .001), supporting Hypothesis 2. Additionally, the analysis indicates that transformational leadership significantly affects psychological capital, evidenced by a standardized beta value of $\beta = .686$ (p < .001), thus supporting Hypothesis 3. For a detailed evaluation and the assumptions of the structural model, see Table 4.

| Table 4 Hypothesis | Testing Results |
|--------------------|-----------------|
|--------------------|-----------------|

| | β | t | р |
|-----------------|------|--------|--------|
| H1: TL -> PC | .686 | 17.653 | < .001 |
| H2: PC-> JS | .482 | 9.012 | < .001 |
| H3: TL -> JS | .313 | 5.604 | < .001 |
| H4: TL-> PC->JS | .331 | 7.571 | < .001 |

Discussion

The present study aimed to investigate the impact of transformational leadership on job satisfaction in private universities in Guangxi, with psychological capital serving as a mediating variable. The findings

provide valuable insights into the complex relationships among these variables and their implications for enhancing teacher performance and well-being within this specific educational context.

The primary hypotheses were supported by the empirical results. Transformational leadership was found to positively influence job satisfaction in private universities in Guangxi, which aligns with previous research (Bass & Avolio, 1992). This indicates that transformational leaders, through idealized influence, intellectual stimulation, individualized consideration, and inspirational motivation, significantly enhance employees' work engagement and satisfaction. Additionally, transformational leadership was positively associated with psychological capital, as supported by prior research (Luthans et al., 2006; Luthans & Avolio et al., 2007; Zhang & Bartol, 2010), confirming Hypothesis 1. Hypothesis 2 was also validated, with psychological capital showing a significant positive correlation with job satisfaction, consistent with earlier studies (Avey et al., 2010; Youssef & Luthans, 2007). Finally, Hypothesis 3, suggesting that psychological capital mediates the relationship between transformational leadership and job satisfaction, was supported by the data.

The results of this study are consistent with existing literature on the positive effects of transformational leadership on job satisfaction and the role of psychological capital. For example, the findings echo the work of Grissom and Loeb (2011) and Sun et al. (2012), who also found significant positive impacts of transformational leadership on job satisfaction in educational settings. The observed mediating role of psychological capital corroborates studies by Sui et al. (2012) and Jia (2020).

While the study supports the hypothesized relationships, several potential biases and threats to internal and statistical validity must be considered. The cross-sectional design limits causal inferences, and the reliance on self-reported data could introduce common method bias despite efforts to mitigate it using Harman's single-factor test. The sample size, while adequate, may not capture the full diversity of the population. Additionally, the use of validated scales ensures reliable measurements, but imprecision in measurement protocols could still affect the results.

The findings of this study are potentially generalizable to private university settings within similar cultural and educational contexts. However, external validity might be constrained by the specific geographical and institutional settings of Guangxi. Differences in organizational culture, administrative practices, and regional educational policies could limit the applicability of these results to other regions or countries.

Limitations and Future Research

While this study provides significant insights into the impact of transformational leadership on job satisfaction with psychological capital as a mediating factor, several limitations should be acknowledged. The study's cross-sectional design limits the ability to draw causal inferences; therefore, longitudinal or experimental studies are needed to establish causality among the variables. Additionally, the use of self-reported questionnaires may introduce response biases, such as social desirability bias or common method bias, despite efforts to mitigate these through validated instruments and confirmatory factor analysis.

The research was conducted exclusively in private universities in Guangxi, China. This regional focus may limit the generalizability of the findings to other contexts or regions. Furthermore, important contextual factors such as organizational culture, workload, and external stressors were not examined in this study, which could influence the relationships between transformational leadership, psychological capital, and job satisfaction. The demographic composition of the sample, such as age, teaching experience, and educational background, may also affect the results and their applicability to different populations.

To address these limitations and build on the findings of this study, future research could pursue several avenues. Conducting longitudinal studies would help to establish the causal relationships between transformational leadership, psychological capital, and job satisfaction over time. Expanding research to include a variety of educational settings, such as public universities, community colleges, and institutions in different geographical regions, would enhance the external validity and generalizability of the findings. Future studies should also investigate additional contextual factors, including organizational culture,

workload, and external stressors, to provide a more comprehensive understanding of how these factors interact with transformational leadership and psychological capital (Jia et al., 2024).

Employing mixed-methods research could offer deeper insights into the mechanisms behind the relationships among the studied variables. Qualitative data could complement quantitative findings and provide richer, context-specific insights. Including a more diverse sample in terms of demographics such as ethnicity, socioeconomic status, and educational background could help to identify how these variables influence the studied relationships. Lastly, designing and implementing intervention studies aimed at enhancing transformational leadership skills and psychological capital could provide practical insights into effective strategies for improving job satisfaction among university faculty. By addressing these areas, future research can further elucidate the complex interplay between leadership styles, psychological resources, and job satisfaction, ultimately contributing to more effective educational management practices and improved teacher well-being.

Implications for Practice

University administrators should focus on developing and promoting transformational leadership skills among department heads and deans. This could be achieved through targeted leadership training programs that emphasize the components of transformational leadership, such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Furthermore, integrating psychological capital development into professional development programs for teachers can help foster resilience, optimism, and self-efficacy, which are crucial for maintaining high levels of job satisfaction and performance.

Educational policymakers should consider implementing policies that support and encourage transformational leadership practices within universities. This includes creating frameworks that recognize and reward transformational leadership behaviors. Policies should also support continuous professional development for educators, focusing on enhancing psychological capital to mitigate stress and improve job satisfaction. By institutionalizing these practices, policymakers can help create more supportive and engaging educational environments, ultimately leading to improve educational outcomes and teacher wellbeing.

Conclusions

In conclusion, this study underscores the critical role of transformational leadership in enhancing job satisfaction through the mediation of psychological capital in private universities in Guangxi. The findings provide a roadmap for educational policymakers and practitioners to foster supportive, engaging, and fulfilling work environments for educators, thereby contributing to the sustained success and development of private educational institutions.

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