

ORIGINAL ARTICLE

The impacts of school leadership styles on teacher satisfaction in vocational education

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ABSTRACT

This study investigates the impact of principals' leadership styles on the job satisfaction of vocational school teachers in Peshawar, Khyber Pakhtunkhwa. It examines four leadership styles—transformational, democratic, autocratic, and laissez-faire—using a quantitative descriptive design. A sample of 195 teachers was selected through simple random sampling. Data were collected *via* a questionnaire and analyzed in SPSS. The results showed that democratic and transformational leadership style had significant positive effects on teacher job satisfaction, while autocratic and laissez-faire styles did not show positive effects. The findings underscore the importance of inclusive and visionary leadership in enhancing teacher satisfaction and institutional effectiveness. They also have implications for leadership training and policy reforms in Pakistan's vocational education sector.

Key words: leadership styles, vocation education, teacher satisfaction, school leadership

INTRODUCTION

Vocational education plays a foundational role in societies' socioeconomic development, as it equips individuals with the practical skills and competencies needed for labor market participation. In Pakistan, the technical and vocational education and training (TVET) sector is especially important for addressing youth unemployment and supporting national economic growth. However, despite ongoing reforms, Pakistani vocational schools continue to face systemic challenges, including outdated curricula, inadequate resources, and weak institutional leadership (Ali Asadullah & Zafar Ullah, 2018; Eichhorst *et al.*, 2012). These shortcomings have often contributed to limited teacher satisfaction and reduced the effectiveness of vocational training institutions (Aydin *et al.*, 2021).

The leadership of principals and institutional heads is

widely recognized as having a pivotal influence on teacher motivation, performance, and retention (Coleman & Glover, 2010). In vocational schools, effective leadership not only ensures administrative efficiency but also creates supportive environments that foster professional growth and job satisfaction (Coleman & Glover, 2010). By contrast, weak or overly hierarchical leadership structures—common in parts of Pakistan's TVET system—have been linked to low morale, limited promotion opportunities, and persistent dissatisfaction among teachers (Belay *et al.*, 2021). Traditionally, leadership in vocational education has mainly been seen as a managerial function centered on planning, supervision, and performance evaluation (Eddy-Spicer *et al.*, 2019). Contemporary approaches, however, emphasize transformational and democratic leadership styles (DLS) that prioritize collaboration, innovation, and the development of positive institutional cultures (Mincu, 2022). Such practices are particularly relevant in Pakistan, where vocational institutions must

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adapt to rapid technological change, global competition, and local labor market demands.

Therefore, it is necessary to examine the relationship between principals' leadership styles and teacher job satisfaction in Pakistan. Strong and inclusive leadership has the potential to address structural deficiencies in Pakistani vocational schools, improve teacher well-being, and enhance the overall quality and relevance of vocational education (Belias & Koustelios, 2014; Ripki *et al.*, 2020; Shi *et al.*, 2024). The remainder of this paper is organized as follows. In the next section, we provide a review of the relevant literature. Section 3 outlines the methodology, including the conceptual framework, participants, instruments, and analytical strategies employed. Section 4 reports the main results of the study. Section 5 discusses the findings in light of existing research, theoretical implications, and contextual considerations. Finally, Section 6 concludes the paper by highlighting the study's contributions, limitations, and directions for future research.

LITERATURE REVIEW

The importance of principals' leadership styles

The leadership style adopted by a school principal is a pivotal determinant of both the institutional climate and teacher outcomes. It refers to the characteristic approaches leaders use to motivate, manage, and guide their staff, which are shaped by their personal traits and contextual demands (Coleman & Glover, 2010). The behaviors, attitudes, and interpersonal skills demonstrated by principals collectively form their leadership identity and influence how they are perceived by teachers. These perceptions are crucial, as supportive and responsive leadership can strengthen teacher motivation, commitment, and satisfaction, ultimately enhancing institutional effectiveness (Shi *et al.*, 2024). Conversely, weak or authoritarian leadership often fosters dissatisfaction, disengagement, and a poor organizational culture.

Research has consistently shown that leadership is not limited to formal authority; rather, it represents a functional and relational process that directly affects school performance and teacher morale (Leithwood & Jantzi, 2000). While debates continue over whether leadership is innate or learned, most scholars agree on an interactionist perspective: effective leadership combines inherent traits with acquired skills (Northouse, 2018). Regardless of its origins, effective leadership remains essential for shaping positive school environments and sustaining teacher engagement.

In vocational and skill-based education systems—such

as those in Pakistan—the demands placed on principals are increasingly multifaceted. Beyond administrative responsibilities, principals are expected to serve as instructional leaders, motivators, and facilitators of professional development (Cheng & Szeto, 2016). Their leadership styles influence not only staff morale and retention but also the overall quality and relevance of vocational training (Omeke & Onah, 2011). Understanding which leadership approaches foster greater teacher satisfaction is therefore central to improving institutional performance and addressing structural challenges within Pakistan's vocational education sector.

Principals' leadership styles and their influence

Autocratic leadership

Autocratic leadership is characterized by centralized authority, limited teacher autonomy, and rigid hierarchical structures. Principals who adopt this style make unilateral decisions with minimal teacher input, relying on top-down communication and strict control (Coleman & Glover, 2010). While such approaches may provide order, they often suppress professional agency and discourage innovation (Omeke & Onah, 2011). Studies have shown that autocratic leadership correlates with low teacher morale, reduced motivation, and diminished job satisfaction (Nsubuga, 2008). In Pakistan, Iqbal (2023) conducted research on exploring conceptions of head teachers regarding the relationship between leadership styles and students' academic achievements at the secondary level and found that public-sector teachers reported particularly low satisfaction under autocratic leadership, where hierarchical traditions remain dominant. Such rigidity restricts collaboration and adaptability, both of which are essential in skill-based education.

Democratic leadership

Democratic leadership promotes participation, collaboration, and shared decision-making, allowing teachers to feel respected and valued in institutional processes. This approach enhances teachers' sense of ownership, professional identity, and job satisfaction (Adeyemi, 2016; Dou *et al.*, 2017) highlighted how democratic leadership improves morale by fostering inclusivity and mutual trust. In vocational education, where practical teaching requires teamwork and professional autonomy, democratic leadership aligns well with teachers' need for empowerment and collegiality. From the perspectives of empowerment theory (Perkins & Zimmerman, 1995) and self-determination theory (Adams *et al.*, 2017), such leadership enhances intrinsic motivation by meeting teachers' needs for autonomy, competence, and relatedness, thereby strengthening satisfaction and retention.

Laissez-faire leadership

Laissez-faire (or delegative) leadership involves minimal involvement by the principal and an overreliance on staff independence (Coleman & Glover, 2010). While this may work when staff members are highly skilled and motivated, vocational institutions often require coordination and direction to manage complex practical training programs (Kovalchuk *et al.*, 2022). A lack of guidance can lead to role ambiguity, weak communication, and confusion about accountability (Pirson, 2020). Teachers in such environments frequently report feeling unsupported, undervalued, and dissatisfied. According to Bass and Avolio (1994), laissez-faire leadership is a form of non-leadership that undermines both teacher confidence and institutional performance. In Pakistani vocational schools, where teachers often expect constructive feedback and developmental support, laissez-faire approaches risk exacerbating dissatisfaction.

Transformational leadership

Transformational leadership emphasizes inspiring and motivating followers through a shared vision, individualized consideration, and intellectual stimulation (Bass & Avolio, 1994; Xanthopoulou & Karampelas, 2020). Principals adopting this style encourage teachers to innovate, take initiative, and engage deeply with their professional responsibilities. Numerous studies have shown its positive influence on teacher job satisfaction, organizational commitment, and overall school effectiveness (Hadi *et al.*, 2024). Theoretically, transformational leadership aligns with self-determination theory by fulfilling teachers' psychological needs for autonomy and competence while also promoting empowerment and professional growth. In vocational schools, where continuous adaptation to industry demands is critical, transformational leadership can foster resilience, creativity, and commitment among teachers.

The importance of teachers' job satisfaction

Teacher job satisfaction is a multidimensional construct that encompasses emotional well-being, professional engagement, and a sense of being valued within one's institution. It is widely recognized as a key factor in teacher retention, instructional quality, and overall school effectiveness (Dinham & Scott, 2000). Satisfaction arises when teachers' expectations align with their actual work experiences, leading to psychological fulfillment, higher commitment, and reduced burnout (Herzberg, 1993). Conversely, dissatisfaction often manifests in absenteeism, low morale, and weakened instructional performance (Herzberg, 1993; Skaalvik, 2023).

A substantial body of research in organizational psychology and education has identified a strong

correlation between leadership styles and job satisfaction. Principals who communicate effectively, motivate their staff, and provide professional recognition foster teachers' sense of purpose and engagement (Adeyemi, 2016; Bogler, 2001). Theoretically, this relationship can be explained through self-determination theory and empowerment perspectives, which suggest that when teachers experience autonomy, competence, and relatedness, their intrinsic motivation and job satisfaction are enhanced.

Given the central role of principals in shaping the school climate, their leadership behaviors directly influence teacher satisfaction and, by extension, student learning outcomes. In vocational settings, where practical instruction requires collaboration, innovation, and adaptability, teacher satisfaction becomes even more critical. An efficient leader not only manages administrative functions but also provides professional and emotional support, builds teacher confidence, and cultivates a positive organizational culture (Agustina *et al.*, 2020; Otrębski, 2022; Pisriwati *et al.*, 2024).

Synthesis and relevance to vocational education in Pakistan

In Pakistan—particularly in Khyber Pakhtunkhwa—vocational education reform has emphasized improving teacher effectiveness and institutional performance. However, many public-sector vocational school principals continue to lack awareness of effective leadership practices, undermining teachers' satisfaction and commitment (Bana & Khaki, 2015; Mustafa, 2012). Weak leadership, often marked by authoritarian tendencies or passive disengagement, exacerbates challenges such as outdated curricula and limited promotion opportunities. By contrast, inclusive and supportive leadership can enhance teacher morale and strengthen institutional outcomes.

While many prior studies have examined leadership styles in isolation (Bibi *et al.*, 2023; Mustafa, 2012), this study considers four major types—autocratic, democratic, laissez-faire, and transformational—within a single framework to evaluate their comparative influence on teacher job satisfaction. Theoretical perspectives suggest that transformational and democratic leadership, by meeting teachers' psychological and professional needs, should positively influence satisfaction, whereas autocratic and laissez-faire approaches are more likely to undermine it (Bass & Avolio, 1994). In Pakistan's vocational sector, where teacher dissatisfaction is frequently linked to weak leadership and hierarchical cultures, empirical evidence of these dynamics remains scarce. To address this gap, the present study investigates how principals' leadership styles shape the job satisfaction of vocational teachers in Peshawar District

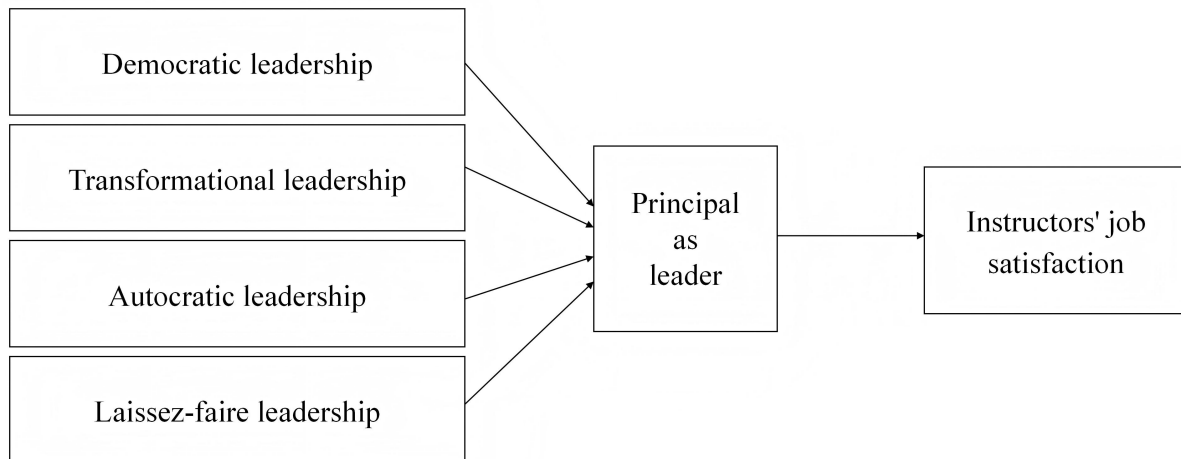


Figure 1. Conceptual framework of the study.

and offers insights into leadership development and policy reforms in TVET.

Considering the pivotal role of principals' leadership in shaping teachers' professional experiences and the specific challenges faced by vocational education institutions in Pakistan, it is essential to investigate how leadership styles influence instructors' job satisfaction. Although prior research has highlighted the importance of leadership in general school settings, empirical research focusing on vocational institutions—particularly within the context of Peshawar, Khyber Pakhtunkhwa—is scarce. Addressing this gap is crucial for informing policies and practices that can strengthen the effectiveness of vocational education, enhance teacher retention, and ultimately improve student outcomes.

Accordingly, this study examines principals' leadership styles, assesses instructors' job satisfaction, and explores the relationship between these two critical factors. To guide this investigation, the following research questions were formulated: (1) What leadership styles are predominantly adopted by principals in vocational education institutions in Peshawar? (2) What is the current level of job satisfaction among instructors in these institutions? (3) How do principals' different leadership styles influence instructors' job satisfaction in the vocational education context of Peshawar?

METHODOLOGY

Conceptual framework

The conceptual framework guiding this study builds on Bass and Avolio's (1994) leadership theories and Herzberg's Motivation Theory (Herzberg, 1993), which emphasizes the dual impact of intrinsic (motivators) and

extrinsic (hygiene) factors on job satisfaction. In this framework, principals' leadership styles (autocratic, democratic, laissez-faire, and transformational) are positioned as key determinants influencing teachers' job satisfaction in vocational education institutions (Figure 1).

From Herzberg's perspective, leadership practices can shape both motivators and hygiene conditions. Transformational and DLSs are more likely to foster intrinsic motivators, such as recognition, professional growth, and a sense of achievement, thereby enhancing job satisfaction. By contrast, autocratic and laissez-faire leadership may weaken these motivators and exacerbate dissatisfaction through excessive control and a lack of support, respectively.

Teacher job satisfaction, therefore, is conceptualized as a multidimensional outcome influenced by leadership behaviors that either enhance intrinsic motivation or fail to address critical hygiene needs such as supportive working conditions, clear communication, and professional respect. Within the Pakistani vocational education context, this framework underscores the principal's role in balancing authority with empowerment, ensuring that leadership practices create both the psychological fulfillment and workplace stability necessary for teacher satisfaction and improved institutional performance. Thus, the following hypotheses are tested in this study. H1: Transformational leadership has a positive effect on the job satisfaction of vocational school teachers. H2: Democratic leadership has a positive effect on the job satisfaction of vocational school teachers. H3: Autocratic leadership has a positive effect on the job satisfaction of vocational school teachers. H4: Laissez-faire leadership has a positive effect on the job satisfaction of vocational school teachers.

Research design and sample size

A quantitative research approach with a descriptive survey design was adopted to investigate the relationship between principals' leadership styles and vocational school teachers' job satisfaction. The target population included all teachers working in public-sector vocational education institutions in Peshawar, Khyber Pakhtunkhwa. Peshawar was chosen because it is a key center of vocational and technical education in the province, hosting diverse institutions that cater to both urban and semi-urban communities. These institutions are central to Pakistan's efforts to reduce youth unemployment and build a skilled workforce, which makes the city an appropriate site for examining how leadership practices influence teacher satisfaction.

From this population, 195 teachers were selected through simple random sampling to ensure adequate representation across gender, age, subject specialization, and teaching experience. The sample size was determined using Yamane's (1967) formula at a 95% confidence level, which confirmed that 195 participants would be sufficient to produce valid and generalizable findings. The final group of respondents represented teachers from multiple disciplines, including mechanical and electrical technology, information technology, textile design, and general education. Among them, 62% were male and 38% were female, reflecting the general gender distribution of the vocational teaching workforce in the city. Regarding age, 48% of the participants were between 30 and 39 years old, 32% were between 40 and 49 years old, and 20% were 50 years old or older. Their teaching experience also varied, with 45% having 6-10 years of experience, 30% having 11-15 years of experience, and 25% having more than 15 years of experience. This demographic diversity ensured that the analysis would provide a nuanced understanding of how leadership styles affect teachers with different backgrounds.

Data collection and analysis

The data were collected *via* a structured questionnaire that was distributed in person to teachers across multiple vocational education institutions in Peshawar. The items were adapted partly from well-established instruments, such as the Multifactor Leadership Questionnaire by Bass and Avolio (1994) and the Minnesota Satisfaction Questionnaire (Weiss *et al.*, 1967), while additional items were developed to capture the specific realities of vocational schools in Pakistan. To ensure content validity, the draft instrument was reviewed by three experts in educational psychology and vocational pedagogy, after which a pilot test was conducted with thirty vocational teachers who were excluded from the main study. The pilot test confirmed the clarity and relevance of the items, though some were revised to

simplify their wording. A reliability test of the pilot data yielded Cronbach's alpha values above 0.70 for all subscales, indicating satisfactory internal consistency (Cohen *et al.*, 2007).

The final questionnaire, consisting of 45 items across two domains—principals' leadership styles and teacher job satisfaction—was administered to 195 teachers. Participation was voluntary, and respondents were assured of confidentiality to minimize social desirability bias (Cohen *et al.*, 2007). A response rate of 92% was achieved, which reflects both the accessibility of institutions in Peshawar and the willingness of teachers to contribute to research addressing issues of leadership and professional satisfaction.

Once data collection was completed, responses were coded and entered into SPSS Statistics version 26. Data cleaning procedures were carried out to identify and correct missing or inconsistent entries (Cohen *et al.*, 2007). A reliability test confirmed strong internal consistency of the final instrument, with Cronbach's alpha values above 0.76 for all constructs. Descriptive statistics, including means and standard deviations, were used to summarize teachers' perceptions of leadership styles and job satisfaction dimensions.

For inferential analysis, multiple regression techniques were applied to examine the predictive influence of the four leadership styles—transformational, democratic, autocratic, and laissez-faire—on overall job satisfaction and its subdimensions (supervision, promotion, salary, nature of work, and collegial relationships). The regression models allowed for an assessment of both the strength and direction of these relationships, thereby highlighting which leadership approaches most significantly contribute to teacher satisfaction in vocational schools. The use of regression analysis also enabled the study to control for potential overlaps among leadership styles, ensuring a more precise understanding of their individual effects.

This rigorous approach to data collection and analysis not only strengthened the reliability of the findings but also enhanced their applicability for informing leadership training and policy reforms within Pakistan's vocational education sector. Detailed reliability statistics for each subscale are presented in Table 1.

RESULTS

Table 2 presents the descriptive statistics for all measured variables. To facilitate interpretation, mean values were categorized using the following scale: 1.00-1.79 = very low, 1.80-2.59 = low, 2.60-3.39 = moderate, 3.40-4.19 = high, and 4.20-5.00 = very high.

Among the four leadership styles, the DLS was rated highest (Mean [M] = 4.21, standard deviation [SD] = 0.64), falling within the very high range. This suggests that principals in vocational institutions are generally perceived as participatory and consultative. The autocratic (M = 4.16, SD = 0.68) and laissez-faire (M = 4.01, SD = 0.74) styles followed closely, both falling within the high range. By contrast, the transformational leadership style (TLS) received a comparatively lower mean (M = 3.53, SD = 0.83), falling within the moderate range, though still reflecting elements of visionary and inspirational leadership.

For the job satisfaction dimensions, colleagues' cooperation (M = 3.37, SD = 0.72) and nature of work (M = 3.13, SD = 0.91) were rated moderate to high, indicating relatively favorable perceptions of collegiality and task-related fulfillment. However, promotion opportunities (M = 2.15, SD = 0.81) and supervision (M = 2.84, SD = 0.67) fell within the low to moderate range, highlighting dissatisfaction with career progression and supervisory practices. The overall mean score for teachers' job satisfaction was 2.88 (SD = 0.49), which corresponds to a moderate level of satisfaction.

Before conducting regression analysis, a Pearson correlation analysis was performed to check for acceptable levels of autocorrelation between variables, as recommended for regression prerequisites. The results confirmed that intercorrelations among the leadership styles and job satisfaction dimensions were within acceptable limits ($r < 0.70$), indicating no serious multicollinearity concerns.

Table 3 displays the results of the multiple regression analysis. The model explains a statistically significant portion of the variance in teachers' job satisfaction. The DLS emerged as the strongest and most significant positive predictor ($\beta = 0.211$, $P < 0.001$), followed by the transformational style ($\beta = 0.173$, $P < 0.05$). By contrast, the autocratic and laissez-faire styles did not exert significant effects ($P > 0.05$), suggesting that directive or non-interventionist approaches have limited impacts on vocational teachers' satisfaction.

These findings underscore the central role of inclusive and inspirational leadership approaches in enhancing teachers' morale, while highlighting structural and supervisory shortcomings as key areas of dissatisfaction within vocational education institutions.

DISCUSSION

The findings underscore the critical influence of leadership on the job satisfaction of vocational education teachers. Among the four leadership styles

Table 1: Major variables and reliability of the tool

Variables	Cronbach's alpha	Items
1. Transformational style of leadership	0.832	5
2. Laissez-faire style of leadership	0.805	5
3. Autocratic style of leadership	0.809	5
4. Democratic style of leadership	0.890	5
5. Supervision	0.760	6
6. Promotion	0.804	5
7. Work	0.777	5
8. Salary	0.821	4
9. Colleagues' cooperation	0.811	5

Table 2: Descriptive statistics of all variables

Variables	n	Min	Max	M	SD
TLS	195	1.60	5.00	3.529	0.826
LLS	195	1.80	5.00	4.007	0.742
ALS	195	2.20	5.00	4.165	0.683
DLS	195	2.60	5.00	4.206	0.639
Supervision	195	1.00	4.17	2.841	0.666
Promotion	195	1.00	4.40	2.151	0.812
Work	195	1.40	5.00	3.135	0.906
Salary	195	1.11	4.64	2.926	0.807
Colleagues	195	1.67	4.97	3.371	0.717
TJS	195	1.58	4.27	2.885	0.489
Valid n (list wise)	195				

TLS, transformational leadership style; LLS, laissez-faire leadership style; ALS, autocratic leadership style; DLS, democratic leadership style; TJS, teachers job satisfaction; M, mean; SD, standard deviation.

examined, democratic leadership had the most substantial positive effect, followed by transformational leadership. Democratic leadership, characterized by participatory decision-making, transparency, and mutual respect, cultivates a sense of belonging and professional fulfillment. This is particularly relevant in vocational institutions, where instructors balance both theoretical instruction and practical training, necessitating autonomy, collaboration, and institutional support. By involving teachers in curriculum development, training design, and school improvement processes, democratic leadership fosters professional ownership and enhances morale. This resonates with the needs of vocational educators in Pakistan, where teachers often report limited participation in institutional decision-making (Rahim, 2019).

Transformational leadership also exerted a significant positive influence on job satisfaction. Its emphasis on inspirational motivation, intellectual stimulation, and recognition of individual contributions is particularly suited to vocational contexts, which demand innovation and adaptability. Leaders who articulate a shared vision

Table 3: Regression analysis results for the effects of leadership styles on teachers' job satisfaction

Model	Unstandardized coefficients		Standardized coefficients (β)	T	P
	β	SE			
(Constant)	2.788	0.277		10.052	0.000
Transformational	0.102	0.043	0.173	2.355	0.020
Autocratic	−0.100	0.058	0.047	0.071	0.943
Laissez-faire	−0.233	0.079	−0.081	−0.833	0.406
Democratic	0.135	0.643	0.211	3.253	0.000

Dependent variable: teachers' job satisfaction. SE, standard error.

and encourage professional growth help strengthen teachers' organizational commitment. Similar patterns have been reported in both international research (Nguyen *et al.*, 2021) and studies conducted in Pakistan (Rafique *et al.*, 2022), highlighting the universal relevance of transformational leadership in educational settings.

By contrast, autocratic and laissez-faire leadership styles did not significantly impact teachers' job satisfaction. These approaches may restrict agency or create ambiguity, both of which undermine effectiveness in the skill-oriented, collaborative environment of vocational institutions. Autocratic control often suppresses innovation, while laissez-faire tendencies may result in weak accountability structures. Such dynamics have been observed in similar contexts, where overly rigid or hands-off leadership contributes to teacher demotivation and reduced institutional performance (Parveen *et al.*, 2022).

The descriptive findings also revealed particularly low scores for promotion opportunities and supervisory support, signaling systemic challenges in Pakistan's vocational education sector. Teachers' limited career mobility and weak supervisory mechanisms not only reduce job satisfaction but may also contribute to attrition. Similar issues have been identified in studies of Pakistani technical and vocational institutions, where the absence of structured promotion pathways and performance-based incentives has been linked to teacher turnover (Khasawneh *et al.*, 2012). Addressing these structural weaknesses through transparent promotion systems, mentoring programs, and supportive supervision could substantially enhance vocational educators' motivation and retention.

In summary, the evidence from this study highlights the importance of cultivating democratic and transformational leadership practices in vocational institutions to improve teachers' job satisfaction. Beyond leadership behaviors, institutional reforms targeting supervision and career development are also crucial. Strengthening teacher satisfaction has wider policy implications, as effective vocational education is central to addressing

youth unemployment and aligning training with labor market needs in Pakistan (Hanif & Pervez, 2004; Shah *et al.*, 2015).

CONCLUSION

This study investigated the relationship between principals' leadership styles and teachers' job satisfaction in public vocational schools in Peshawar, Khyber Pakhtunkhwa, Pakistan. By analyzing how four leadership styles—democratic, transformational, autocratic, and laissez-faire—impact key dimensions of job satisfaction (supervision, promotion opportunities, nature of work, salary, and collegial cooperation), this study offers an in-depth perspective on how leadership practices shape vocational teachers' professional experiences.

The findings revealed that democratic and TLS exert the strongest positive influence on teachers' job satisfaction. Democratic leadership—with its emphasis on participation, collaboration, and respect—was particularly impactful, indicating that teachers value inclusive practices that acknowledge their voices in institutional decision-making. Transformational leadership also showed a significant positive effect, highlighting the importance of vision, motivation, and individualized support in sustaining teacher morale. By contrast, autocratic and laissez-faire styles were not significant predictors of satisfaction, suggesting that overly directive or disengaged leadership models fail to meet the professional needs of teachers in vocational contexts.

These results underscore the central role of leadership in shaping teacher motivation, retention, and overall institutional effectiveness. In vocational education—where instructors must balance theoretical instruction with hands-on technical training—teachers require both autonomy and institutional support. Leadership that provides recognition, fosters innovation, and encourages teacher participation is essential not only for individual job satisfaction but also for achieving the broader goals of vocational training in addressing unemployment and preparing a skilled workforce.

Implications for practice and policy

The study provides practical insights for policymakers, education administrators, and institutional leaders in Pakistan and similar contexts. First, it emphasizes the urgent need to strengthen democratic and transformational leadership competencies among vocational school principals. Leadership development programs focusing on participatory decision-making, motivational communication, and the capacity to support teacher growth should be systematically integrated into professional training for current and aspiring principals.

Second, the findings point to structural gaps in promotion and supervisory systems that hinder teacher satisfaction. Teachers reported particularly low levels of satisfaction with promotion opportunities and supervisory support, highlighting systemic weaknesses. Addressing these issues requires transparent, merit-based promotion frameworks and clear pathways for career advancement within vocational institutions. Additionally, supervisory practices should shift from primarily evaluative approaches to mentoring, coaching, and capacity-building models that enhance professional trust and collaboration.

Third, education policymakers should prioritize institutional reforms that embed teacher participation in governance processes. Involving teachers in curriculum planning, training design, and decision-making not only improves morale but also ensures that vocational education remains responsive to labor market demands. Developing mechanisms such as teacher councils, structured feedback systems, and participatory policy reviews could institutionalize this involvement.

Fourth, the results have policy implications at the national level. Strengthening vocational education leadership aligns directly with Pakistan's goals of reducing unemployment, enhancing productivity, and preparing a competitive workforce for the global economy. As vocational education is central to socioeconomic development, investment in leadership capacity building, teacher satisfaction, and institutional governance must be seen as a long-term strategic priority.

Finally, while this study is grounded in the Pakistani context, its findings carry broader international relevance. The positive effects of democratic and transformational leadership on teacher job satisfaction are consistent with global trends in vocational education leadership. Conducting comparative studies across different countries would help to identify how cultural, economic, and institutional factors shape the effectiveness of leadership styles. Such cross-national evidence would not only strengthen the generalizability of the findings but also contribute to international policy

debates on vocational education reform.

Limitations and future research directions

Because the scope of this study was limited to public vocational schools in a single city, and due to its cross-sectional survey design, the findings are not generalizable and causal inference cannot be carried out. Future studies should expand their scope to multiple cities and provinces, include private institutions for comparison, and adopt longitudinal designs to capture changes over time. Additionally, qualitative interviews would help explain why certain leadership styles influence satisfaction, such as how democratic leadership fosters trust or how transformational leadership supports innovation. Research could also track teacher satisfaction following leadership training interventions to assess their practical impact.

DECLARATIONS

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None.

Author contributions

Alam J: Investigation, Methodology, Writing—Original Draft Preparation, Writing—Review & Editing. Ashraf MA: Conceptualization, Project Administration, Supervision, Writing—Review & Editing. All authors have read and approved the final version.

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Ethical approval

The study was approved by the Ethics Committee of University of Wah.

Informed consent

Written informed consent was obtained from the participants prior to participation in the study.

Conflict of interest

The authors have no conflicts of interest to declare.

Use of large language models, AI and machine learning tools

None.

Data availability statement

Data used to support the findings of this study are available from the corresponding author upon request.

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