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Managerial strategies used by principals to motivate teachers: A comparative study of two cities

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Abstract

In the study reported on here we examined how public sector school principals in Lahore and Faisalabad, Pakistan, used managerial strategies to boost teacher motivation. Using a mixed methods convergent parallel design, we combined quantitative survey data from 106 teachers with qualitative interview data from 15 principals. The questionnaire and interview instruments were aimed at capturing both intrinsic and extrinsic motivational factors, including leadership style, professional development, and recognition practices. The findings reveal that principals exerted substantial influence over teachers' autonomy and workplace climate. Participatory leadership, professional learning opportunities, and structured recognition schemes were found to boost motivation, whereas autocratic decision-making, limited independence, and inadequate incentives were found to reduce it. We recommend more inclusive and collaborative managerial approaches to foster supportive school cultures that promote teacher engagement and improved educational outcomes. Future research should examine the long-term and contextual effects of these motivational strategies across diverse educational settings in Pakistan.

Keywords: leadership; managerial strategies; mixed methods research; Pakistan; teacher motivation

Introduction

Education is universally recognised as the foundation of social and economic development, and teachers remain central to achieving quality learning outcomes. Their motivation, commitment, and sense of professional fulfilment are vital in shaping students' success and overall school performance (Baroudi, Tamim & Hojeij, 2022). A motivated teacher not only enhances classroom learning but also contributes to institutional effectiveness and a culture of professional growth. Understanding the factors that drive teacher motivation – and the role of school leadership in fostering it – is, therefore, crucial for strengthening educational quality, particularly in developing contexts such as Pakistan.

Teacher motivation is a multidimensional concept shaped by both intrinsic and extrinsic factors (Bong, Reeve & Kim, 2023). Intrinsic motivation is driven by internal satisfaction, professional recognition, and personal development, whereas extrinsic motivation stems from external rewards such as salary, job security, and working conditions (Abun, Menor, Catabagan, Magallanes & Ranay, 2021). Foundational theories such as Maslow's hierarchy of needs, Herzberg's two-factor theory, and McClelland's need achievement theory have long been used to explain how motivation influences individual performance (Herzberg, Mausner & Snyderman, 1959; Maslow, 1943; McClelland, Koestner & Weinberger, 1989). These frameworks suggest that employees, including teachers, seek security and personal growth, and that their motivation is shaped by recognition, autonomy, and meaningful work.

Despite the extensive body of motivational theory, the application of these models within Pakistan's public school context remains limited. Much of the existing research in Pakistan has concentrated on teacher satisfaction or school leadership in isolation, without appropriately examining how principals' managerial strategies influence teacher motivation in practice. Moreover, there is a lack of comparative evidence exploring how leadership practices vary across different urban and socio-economic settings. With this study we aimed to address these gaps by analysing how school principals in Lahore and Faisalabad motivated teachers through managerial strategies and how these strategies differed in the two cities.

In Pakistan, public school management continues to reflect centralised and hierarchical administrative traditions, where authority is concentrated in the principal's role. This system often restricts teacher autonomy and limits opportunities for participation in decision-making (Parveen, Phuc, Shafiq & Wei, 2021). Many government teachers experience rigid work structures, limited recognition, and minimal access to professional development. Such conditions hinder creativity and innovation in teaching and can lead to professional disengagement. Conversely, leadership models that value collaboration, trust, and empowerment are shown to enhance motivation and job satisfaction (Arar & Oplatka, 2022; Wilson, 2020). Therefore, there is a pressing need to investigate how leadership style and managerial practices interact with teachers' intrinsic and extrinsic motivators in Pakistan's public education system.

Principals play a decisive role in shaping school culture and influencing teachers' morale. Their managerial practices – ranging from communication, recognition, and delegation to professional development opportunities – have a direct bearing on motivation and engagement. When principals provide constructive feedback, foster a positive work environment, and involve teachers in school decision-making, they help build trust and commitment (Griffiths, Alsip, Hart, Round & Brady, 2021). In contrast, overly bureaucratic leadership and limited appreciation for teachers' contributions can erode motivation and morale (Fatima, Safdar & Jahanzeb, 2017). Research in comparable developing countries also highlights that effective leadership can significantly improve teacher satisfaction and student outcomes (Naidoo, 2019).

Against this backdrop, we examined how public school principals in Lahore and Faisalabad implemented managerial strategies to enhance teacher motivation. These two cities were purposefully chosen for their contrasting contexts. Lahore, as Pakistan's cultural and educational centre, represents a more resource-rich environment with established administrative structures, while Faisalabad, a major industrial city, faces more acute socio-economic challenges. Comparing these settings facilitated a deeper understanding of how contextual factors influenced leadership practices and their influence on teacher motivation. This study was guided by the following research questions.

What managerial strategies do public school principals in Lahore and Faisalabad use to enhance teacher motivation?

How do these strategies vary between the two urban contexts?

How do intrinsic and extrinsic motivational factors

interact with leadership styles and contextual variables to affect teacher motivation?

By analysing these questions, we aimed to bridge the gap between motivational theory and its practical application within Pakistan's education sector. Rather than treating leadership as an abstract construct, we focused on concrete managerial behaviour and the perceived impact thereof on teachers' motivation and professional engagement.

The comparative design of this research also provided an opportunity to highlight variations in leadership effectiveness in urban contexts. In Lahore, where administrative systems are relatively developed, leadership strategies may reflect formalised approaches to recognition and performance management. In Faisalabad, where schools often face constraints in funding and resources, principals may rely more on interpersonal and relational leadership to sustain teacher motivation. Analysing these contrasts offers valuable insight into how educational leaders adapt strategies within differing resource environments.

The study offers three main contributions. Firstly, it contributes theoretically by applying established motivation theories within a South Asian public education context, thereby extending their relevance beyond Western organisational models. It reveals how intrinsic and extrinsic factors interplay across different leadership conditions, offering a more contextually grounded understanding of teacher motivation. Secondly, it adds empirical and contextual value through its comparative focus on Lahore and Faisalabad – two cities with distinct administrative, economic, and social profiles. This approach enriched understanding of how local realities influenced leadership practices and teacher experiences. Thirdly, the study provides practical implications for educational policymakers and practitioners. By identifying effective managerial strategies that enhance motivation such as participatory leadership, fair workload distribution, and structured recognition programmes, the research offers actionable insight for improving teacher morale, retention, and performance in public schools.

Ultimately, this study underscores that teacher motivation cannot be achieved solely through financial incentives or administrative control. It requires a balanced combination of supportive leadership, professional recognition, and opportunities for growth. By examining how these factors operate in two major Pakistani cities, we aimed to inform leadership development programmes and policy reforms that promote a more motivated and empowered teaching workforce.

Literature Review

Teacher motivation is widely recognised as a central determinant of educational quality and student achievement. Motivated teachers demonstrate more substantial professional commitment, employ innovative teaching practices, and sustain higher levels of engagement. When motivation declines, morale, attendance, and instructional quality also deteriorate. The literature on teacher motivation combines psychological theory with educational leadership research to explain how individual and organisational factors interact to influence teachers' attitudes and performance.

Theoretical perspectives on motivation

Foundational psychological frameworks have long guided the study of motivation. Maslow's hierarchy of needs (1943) suggests that individuals progress from basic physiological and safety needs to higher levels of esteem and self-actualisation. Herzberg's two-factor theory (1959) distinguishes between hygiene factors, such as salary and working conditions, and motivators, such as recognition and professional achievement. McClelland et al.'s achievement theory (1989) identifies achievement, affiliation, and power as primary drivers of motivation. Collectively, these theories highlight that sustained motivation results from the fulfilment of both material and psychological needs.

More contemporary models, including Vroom's expectancy theory (1964) and self-determination theory (Deci, Eghrari, Patrick & Leone, 1994), emphasise perceived fairness, autonomy, and competence as key motivational influences. Teachers are more likely to remain engaged when they believe that their efforts lead to valued outcomes and when school structures support professional independence. These frameworks provide a foundation for examining how principals' leadership practices can strengthen or weaken teacher motivation.

Leadership styles and their influence on motivation

Leadership behaviour is a decisive factor shaping school climate and teacher morale. Participatory and transformational leadership, which promote collaboration, trust, and empowerment, are consistently linked with higher motivation and job satisfaction (Arar & Oplatka, 2022; Wilson, 2020). Such approaches create an atmosphere in which teachers feel respected and included in decision-making.

In contrast, autocratic or bureaucratic leadership characterised by excessive control and limited communication undermines teacher autonomy and commitment. Pakistani studies highlight this issue. Parveen et al. (2021) found that hierarchical management structures in Faisalabad's public schools restricted teachers' professional

independence, while Sarwar, Tariq, Aamir and Guan (2023) observed that democratic leadership improved job satisfaction and motivation. Similar evidence from other countries reinforces this trend. Naidoo (2019) in South Africa and Tran, Nghia, Nguyen and Ngo (2020) in Vietnam, found that inclusive leadership models enhanced collaboration, creativity, and teacher engagement. Although leadership styles differ across cultures, participatory and servant leadership consistently emerge as strong predictors of motivation.

Recognition, rewards, and professional value

Recognition and appreciation are among the most influential intrinsic motivators. Herzberg's theory asserts that acknowledgment and achievement contribute more to satisfaction than financial incentives alone. Sobaih and Hasanein (2020) demonstrated that regular appreciation improved morale and commitment among teachers. Within Pakistan, Gao, Hu, Akram, Ul Hassan, Shahzad and Jan (2025) found that structured reward systems including verbal praise, certificates, and professional recognition significantly increased teacher engagement. Kalim and Bibi (2024) similarly report that visible acknowledgment of teachers' efforts strengthened their sense of belonging even when financial rewards were limited.

While financial incentives such as timely salary payments, increments, and allowances remain essential (Agrawal & Dhamija, 2024), symbolic and social recognition has become increasingly valued (White, P 2023). Schools that formalise appreciation ceremonies or transparent promotion policies tend to report higher retention and greater job satisfaction.

Professional development and capacity building

Continuous professional development (PD) is another vital contributor to teacher motivation. Teachers who participate in regular, practice-based PD display greater confidence, self-efficacy, and instructional effectiveness (Lin, YJ & Wang, 2021; Polly, Martin & Guilbaud, 2021). In Pakistan, Ghani, Zada, Memon, Ullah, Khattak, Han, Ariza-Montes and Araya-Castillo (2022) linked the lack of structured PD programmes in government schools to stagnation and professional disengagement, while Dayagbil and Alda (2024) found that peer-mentoring and collaborative learning opportunities enhanced confidence and motivation. Effective PD should, therefore, be continuous, interactive, and embedded within school culture, rather than confined to one-off workshops.

Working conditions and organisational climate

The school environment has a powerful impact on teacher motivation. Supportive climates characterised by trust, fairness, and adequate

resources contribute to satisfaction (Griffiths et al., 2021). Conversely, heavy workloads, scarce resources, and poor infrastructure lead to stress and burnout (Forson, Ofosu-Dwamena, Opoku & Adjavon, 2021). In Pakistan, Rauf, Muhammad and Saeed (2021) identified inadequate facilities and overcrowded classrooms as persistent demotivating factors, while Fatima et al. (2017) observed that rigid administrative practices suppressed creativity and autonomy. Schools granting teachers greater control over lesson planning and classroom management have shown higher levels of engagement and retention (Uko & Ihebom, 2020).

Recent qualitative evidence from studies such as that by Khan, Siraji and Gillani (2025), also highlight the emotional dimension of motivation: empathetic and caring leadership reduces stress and enhances teachers' sense of belonging. This aligns with Laufer, Deacon, Mende and Schäfer (2025), who emphasise that trust and compassion are integral to organisational learning and motivation.

Comparative and contextual dimensions

Comparative research demonstrates that leadership effectiveness and teacher motivation are shaped by socio-economic and cultural context. In Pakistan's urban settings, disparities in resources and administrative autonomy influence how principals manage their schools. Lahore, with its established educational infrastructure, typically offers formalised recognition and PD opportunities, whereas Faisalabad often depends on relational and moral leadership to sustain morale.

Recent comparative studies from different countries (Nayak, Praveen, Chinthamu, Satapathy, Khetre & Bansal, 2024) and Pakistan (Gao et al., 2025), underscore the need to situate leadership strategies within local realities. Their findings confirm that no single motivational model fits all situations; effective strategies must correspond to institutional capacity, leadership culture, and socio-economic context.

Literature shows that teacher motivation thrives under inclusive leadership, meaningful recognition, fair working conditions, and opportunities for continuous professional growth. However, empirical evidence connecting these elements within Pakistan's public school system remains limited. With this study we addressed this gap by providing comparative insight from Lahore and Faisalabad, linking managerial strategies with teacher motivation to inform policy and practice.

Methodology

We adopted a mixed methods convergent parallel design to investigate how public school principals in Lahore and Faisalabad, Pakistan, employed managerial strategies to enhance teacher motivation. The combination of quantitative and qualitative data allowed a deeper exploration of

measurable patterns and contextual meanings. Quantitative results offered generalisable trends, while qualitative insight provided rich explanations of the underlying reasons for teachers' and principals' perceptions.

Research Design

A convergent, parallel mixed methods approach was selected because it enables the simultaneous collection and separate analysis of quantitative and qualitative data, followed by integration during interpretation. This design ensured that neither form of data dominated; rather, each contributed equally to a comprehensive understanding of managerial strategies and motivational outcomes (Plano Clark, 2019). The design also enhanced the study's internal validity through triangulation, and reducing potential bias from reliance on a single data source.

The study framework linking leadership strategies, motivational factors, and contextual variables guided the data collection instruments. Quantitative items captured measurable aspects of intrinsic and extrinsic motivation, while lived experiences and managerial practices were explored through qualitative interviews.

Population and Sampling

The target population comprised teachers and principals in government secondary schools in Lahore and Faisalabad. The sampling frame was drawn from official lists obtained from the respective District Education Departments. Because of time and access constraints, convenience sampling was used to select schools that were accessible and willing to participate. Although this technique limits the generalisability of results, it provided valuable insight into urban public school settings where motivation challenges are particularly salient.

The final sample included 106 teachers and 15 principals from girls' secondary schools. This composition provided adequate representation for statistical and thematic analysis, consistent with previous mixed methods studies in educational leadership. Sample size adequacy was judged using the rule of thumb that at least 100 cases are desirable for descriptive and correlational analysis in exploratory research (White, M 2022). Efforts were made to include participants with diverse years of teaching experience, varied subject specialisations, and schools serving different socio-economic communities.

While the use of convenience sampling is a limitation, measures were taken to mitigate potential bias (Akram, Hameed & Pervaiz, 2023). Data were collected from multiple schools from both districts, ensuring a range of perspectives. Findings are thus interpreted as indicative rather than strictly generalisable.

Research Instruments

We employed two primary research instruments: a teacher questionnaire for the quantitative component and a principal interview protocol for the qualitative component.

Teacher questionnaire

The teacher questionnaire was a structured instrument containing 34 items divided into four sections: demographic information, intrinsic motivation, extrinsic motivation, and perceptions of principals' managerial strategies. The majority of items were adapted from previously validated tools used in teacher-motivation and leadership studies (Gao et al., 2025), modified to suit the Pakistani educational context. Responses were measured on a binary scale (Yes = 1, No = 0). A pilot test was undertaken with 15 teachers from non-sampled schools in Lahore to assess clarity and reliability. Minor wording adjustments were made following feedback. Reliability analysis yielded a Cronbach's alpha of 0.87, indicating good internal consistency. Content validity was confirmed through expert review by three academics specialising in educational leadership, who evaluated item relevance and linguistic appropriateness.

Principal interview protocol

The semi-structured interview guide for principals comprised five open-ended questions designed to elicit detailed narratives about leadership strategies, teacher motivation, and contextual challenges. Questions were aligned with the theoretical framework to ensure coherence between constructs and data. Interviews were conducted in English and Urdu, depending on participants' preference, and each session. The interview instrument was also pilot-tested with two principals to refine the sequencing and phrasing of questions. This ensured consistency and comprehension while allowing flexibility for follow-up probing during data collection.

Data Collection Procedures

Data collection occurred between March and June 2024. Teachers completed questionnaires during scheduled meetings in their schools under our supervision to ensure a high response rate. Principals were interviewed individually in their offices or via online platforms when in-person access was restricted.

Participation was entirely voluntary, and respondents were informed about the purpose of the study, confidentiality protocols, and their right to withdraw at any time. No identifying information was recorded on survey forms. Informed consent was obtained from all participants prior to data collection.

Data Analysis

Quantitative analysis

Quantitative data were entered into STATA 18 for analysis. Descriptive statistics (frequencies, means, and percentages) were calculated to summarise responses. To explore relationships among variables, cross-tabulation was used to compare patterns between Lahore and Faisalabad. These analyses helped identify statistically significant differences in how teachers from the two cities perceived principals' strategies and motivational factors. The results were then presented through tables and graphs to facilitate interpretation.

Qualitative analysis

The qualitative data from principal interviews were analysed using thematic analysis, following Braun and Clarke's six-phase process: familiarisation with data, initial coding, theme generation, review, definition, and reporting. Coding was primarily inductive, allowing themes to emerge from the data rather than being imposed a priori. To enhance credibility, transcripts were coded independently by two researchers, and discrepancies were discussed until consensus was reached (Byrne, 2022). Google Colab Python software was used to organise and retrieve coded segments efficiently.

Integration of findings occurred at the interpretation stage, where qualitative themes were compared with quantitative patterns to highlight convergence, divergence, and complementarity. This triangulation ensured richer and more trustworthy conclusions about the interplay between leadership strategies and teacher motivation.

Ethical Considerations

Ethical clearance (Approval ID: REB-03/16) was obtained from the institutional review board of the corresponding author's university prior to data collection. Participants received written information outlining the study objectives, voluntary participation, and data-confidentiality measures. All data were stored securely, and to protect identities, pseudonyms were used in reporting. Only aggregated results are presented in this article.

Limitations

Although the mixed methods design strengthened the robustness of findings, some limitations remained. The use of convenience sampling restricts generalisation to all schools in Pakistan. Additionally, self-reported data may be influenced by social desirability bias. To mitigate these concerns, multiple data sources and triangulation were employed. Future studies could adopt probabilistic sampling and include longitudinal

designs to track motivation trends over time.

We employed a rigorous mixed methods approach integrating quantitative surveys and qualitative interviews to examine managerial strategies for teacher motivation in two Pakistani cities. The design enabled both breadth and depth of understanding. By clearly articulating the sampling procedures, instruments, analysis, and ethical safeguards, the methodology provided a transparent and replicable foundation for interpreting the study findings.

Findings

The findings of this study are derived from both quantitative and qualitative data. The quantitative results, summarised in Table 1, explore teachers' perceptions of principals' use of motivational strategies in Lahore and Faisalabad, while Tables 2 and 3 respectively present thematic analyses of teachers' and principals' qualitative responses. Percentages in the tables indicate the proportion of teachers responding "Yes" to each statement and, therefore, do not total 100%, as multiple items were rated independently.

Quantitative Findings

As shown in Table 1, differences on intrinsic and extrinsic motivational factors emerged in Lahore and Faisalabad. Half of the teachers in Faisalabad reported that principals encouraged creativity, compared to only 39% in Lahore. Conversely, 71% of Lahore teachers indicated that their principals harshly criticised mistakes, whereas this figure was notably lower (48%) in Faisalabad. These findings suggest that principals in Faisalabad fostered a more supportive and trust-based culture, aligning with participatory leadership principles within Vroom's expectancy framework, which emphasises

fair and encouraging feedback as a driver of motivation.

Regarding extrinsic motivation, 66% of Faisalabad teachers reported access to instructional technologies such as whiteboards and computers, compared to only 41% in Lahore. This reflects stronger resource provision and investment in professional tools in Faisalabad. However, 44% of teachers in Lahore confirmed that salaries were paid on time compared with 38% in Faisalabad, indicating that Lahore schools were more efficient in meeting basic financial obligations consistent with Herzberg's "hygiene factors" that prevent dissatisfaction but may not necessarily inspire high motivation.

For working conditions, 72% of Faisalabad respondents agreed that principals enforced discipline and 64% felt that job security was enhanced by principals' attitudes, compared to 38% in Lahore. However, almost nine in 10 teachers in Lahore (87%) reported freedom of action, reflecting higher autonomy relative to Faisalabad (28%). This dual pattern reveals a contextual paradox: Lahore's environment offers freedom but weaker emotional and organisational support, while Faisalabad provides stronger structure and resources but less autonomy.

Finally, in terms of managerial strategies, 62% of Faisalabad teachers felt that principals assigned work equitably, compared to only 36% in Lahore. Similarly, 53% in Faisalabad received academic feedback compared to 41% in Lahore. These variations reveal a more consultative leadership style in Faisalabad, consistent with the participatory dimensions of McClelland's "affiliation" need and Maslow's esteem-level motivators.

Table 1 Teachers' responses on the use of motivational strategies

Statement	Lahore		Faisalabad	
	No %	Yes %	No %	Yes %
Intrinsic motivation				
Principal encourages you on your creativity and innovation.	61	39	50	50
Principal harshly criticises you for your mistakes.	71	29	52	48
Principal cares about your self-respect.	65	35	47	53
Principal encourages you to work hard.	71	29	53	47
Principal acknowledges your achievements.	62	38	57	43
Principal shows sympathetic behaviour with teachers.	59	41	67	33
Principal shows positive attitude towards teachers.	59	41	54	46
Extrinsic motivation				
Principal provides instructional technology like whiteboards and computers.	59	41	34	66
Principal helps and guides you to achieve targets.	54	46	67	33
Principal pays your salary on time.	56	44	62	38
Principal provides ample chances to enhance professional development.	55	45	50	50
Working conditions				
Principal worries about the transfer effect of teachers.	77	23	65	35
Principal writes annual reports slowly and tardily.	62	38	47	53
Principal's attitude enhances job security.	62	38	36	64
Principal assigns unequal duties e.g. examination, assembly, function and debates, etc.	53	47	38	62
Principal observes strict discipline in school.	34	66	28	72
Principal is regularly evaluating your work.	88	12	52	48
Principal creates an atmosphere of freedom in terms of your actions in the school.	87	13	72	28
Strategies used by the principal				
Principal provides information for recommendation of promotions.	73	27	57	43
Principal motivates you through feedback in academic matters.	59	41	47	53
Principal gives verbal and nonverbal recognition of teachers.	82	18	63	37
Principal establishes a good relationship with staff.	68	32	52	48
Principal assigns work equally among teachers.	64	36	38	62

The thematic analysis of open-ended responses (Table 2) reinforced the quantitative trends. Both cities demonstrated a reliance on training and mentorship as core motivational strategies, but with differing emphases. Lahore principals preferred structured and formalised training sessions, whereas Faisalabad counterparts prioritised workshops and informal mentorship. Communication emerged as a central theme, with both cities highlighting open meetings and dialogue; however, Lahore schools exhibited more structured feedback systems, while schools in Faisalabad relied on spontaneous, relationship-based exchanges.

Recognition practices also varied. Schools in Lahore emphasised certificates and public acknowledgement during school events, reflecting a symbolic recognition culture. Schools in

Faisalabad, however, combined symbolic and material rewards offering cash prizes alongside certificates. This approach aligns with Herzberg's two-factor theory, suggesting that intrinsic satisfaction (recognition) coupled with extrinsic incentives (cash rewards) fosters stronger motivation.

Both groups highlighted moral and ethical reinforcement as a motivational strategy, often embedded within Islamic values and community ethos. Lahore schools reported more frequent "moral-boosting" meetings, suggesting an institutionalised form of value-driven motivation. Faisalabad schools, by contrast, integrated moral principles into everyday team-building exercises, indicating a more relational approach to ethics and motivation.

Table 2 Thematic analysis of strategies by principals (teachers' response)

Strategies	Lahore	Faisalabad	Similarities	Differences
Training and development	Organised training sessions, mentorship programmes	Workshops, training sessions, mentorship	Schools in both cities used training sessions and mentorship as core strategies.	Lahore schools focused more on organised training programmes, while schools in Faisalabad incorporated more workshops.
Communication enhancement	Regular meetings, open communication channels, feedback sessions	Open communication channels, regular principal-teacher meetings	Open communication and regular meetings were key strategies in both cities.	Schools in Lahore placed additional focus on structured feedback sessions.
Appreciation and recognition	Certificates of appreciation, public acknowledgment during school events	Cash prizes, certificates of appreciation	Certificates of appreciation were common in schools in both cities.	Schools in Faisalabad emphasised monetary rewards (cash prizes), unlike Lahore.
Positive environment building	Motivational talks, creating a respectful and friendly workplace	Building a positive learning environment, fostering collaboration	Schools in both cities emphasise the need for a positive environment.	Schools in Lahore highlighted motivational talks and workplace respect; schools in Faisalabad focused on collaboration.
Conflict resolution	Conducting mediation meetings, addressing grievances	Focused team-building activities, resolving interpersonal conflicts among staff	Schools in both cities addressed conflict through direct engagement and resolution strategies.	Schools in Faisalabad prioritised team-building exercises, whereas schools in Lahore focused on mediation.
Moral and ethical boosting	Moral-boosting meetings, fostering Islamic values	Incorporating moral values in meetings and strategies	Schools in both cities integrated Islamic values and moral encouragement into their strategies.	School in Lahore conducted more frequent moral-boosting meetings.

Interviews with principals (Table 3) confirmed several patterns found in teacher responses but also revealed contextual nuances. Both groups of principals prioritised recognition and supportive environments, consistent with Maslow's higher-order needs of belonging and esteem. Principals in Lahore focused on formal ceremonies for appreciation, often linked to board results or specific achievements, while principals in Faisalabad favoured general appreciation and routine verbal praise.

A consistent finding in both cities was the emphasis on maintaining a friendly atmosphere and

providing autonomy. Yet, principals in Lahore demonstrated greater concern for maintaining "checks and balances" and ensuring accountability through performance monitoring, whereas principals in Faisalabad stressed inclusivity and teamwork. Resource allocation was valued in both contexts, but the emphasis on technology in schools in Faisalabad suggests a practical interpretation of support, while the approach in Lahore leaned towards professional recognition and communication.

Table 3 Thematic analysis of strategies by principals (principals' response)

Theme	Lahore	Faisalabad	Similarities	Differences
Recognition and rewards	Appreciation based on board results, cash prizes, increments	Appreciation based on board results, increments, cash prizes	In both cities appreciation and monetary incentives (increments, cash prizes) were used.	Schools in Lahore emphasised structured recognition through rewards during functions/seminars.
Supportive environment	Friendly atmosphere, freedom for teachers	Friendly atmosphere, freedom for teachers	In both cities the focus was on fostering a supportive and friendly school culture.	No major differences were noted.
Encouraging competitiveness	Creating competition, assigning duties	Creating competition, assigning duties	Encouraging healthy competition and task assignments was a common strategy in both cities.	School in Lahore placed more emphasis on "maintaining check and balances" alongside competition.
Communication and feedback	Effective communication (teacher-principal, teacher-parent), conducting meetings	Effective communication (teacher-principal, teacher-parent), conducting meetings	In both cities regular communication and feedback as motivational tool was prioritised.	School in Lahore included explicit mention of teacher-parent communication in their strategies.
Capacity building	Organising seminars and functions for skills development and reward distribution	Organising seminars and functions for skills development and reward distribution	In both cities seminars and functions for appreciation and capacity building were conducted.	School in Lahore highlighted problem-solving and creativity as specific areas for capacity enhancement.
Resource allocation	Ensuring availability of teaching resources	Ensuring availability of teaching resources	To ease teaching responsibilities, resource provision was prioritised in both cities.	No major differences were noted.
Freedom and autonomy	Providing freedom in decision-making	Providing freedom in decision-making	In both cities the importance of autonomy in boosting teacher morale was recognised.	Schools in Lahore showed slightly more emphasis on creativity in decision-making.

Collectively, these results highlight that leadership in both contexts was evolving from traditional hierarchical models to more participatory and communicative forms. However, variations persisted due to local socio-economic, administrative, and cultural contexts.

Discussion

In this study we highlight how leadership style, recognition, incentives, and working conditions collectively influenced teacher motivation in public schools in two cities in Pakistan. By comparing schools in Lahore and Faisalabad, the study reveals that contextual differences – economic, cultural, and managerial – mediated motivational outcomes.

Leadership Style and Teacher Engagement

Leadership style emerged as a defining determinant of teacher motivation, corroborating extensive empirical evidence linking participatory leadership with enhanced job satisfaction and commitment (Griffiths et al., 2021; Shula, 2023). Principals in Faisalabad tended to adopt a more inclusive and communicative style, fostering teacher engagement and shared responsibility. This is consistent with

findings by Arar and Oplatka (2022) and Wilson (2020), who observed that democratic leadership cultivates organisational trust and autonomy, which are essential for intrinsic motivation. Similar evidence from Ghana (Forson et al., 2021) and Vietnam (Tran et al., 2020) shows that when school leaders delegate authority and recognise teacher agency, both morale and instructional quality improve.

Conversely, the hierarchical structure in Lahore, marked by limited teacher participation, aligned with the bureaucratic leadership models described by Parveen et al. (2021). Such administrative rigidity restricts creativity and professional independence, thereby undermining Herzberg's motivators of recognition and achievement. Interestingly, even though teachers in Lahore reported greater freedom in their day-to-day teaching, this autonomy appeared unanchored within supportive communication structures. As Naidoo (2019) noted in the South African context, autonomy without feedback can lead to uncertainty rather than empowerment. The contrast between the two cities, therefore, reinforces McClelland's concept of "affiliation needs": teachers' motivation

thrives not merely on freedom, but on collaborative belonging and recognition within their professional community.

The results also extend Vroom's expectancy theory, demonstrating that teachers' perceived fairness and transparency in leadership amplify the relationship between effort and reward. Where principals in Faisalabad maintained consistent communication and equitable feedback, teachers felt that their contributions were meaningful and reciprocated. This finding aligns with Dorta-Afonso, González-de-la-Rosa, García-Rodríguez and Romero-Domínguez (2021), who found that expectancy perceptions significantly mediated job satisfaction in organisational settings.

Recognition, Incentives, and Emotional Climate

Recognition and rewards were consistently reported as the most influential motivators. The mixed strategy of symbolic appreciation (certificates, praise) and tangible incentives (cash awards) used in Faisalabad produced stronger affective engagement than the primarily ceremonial approach in Lahore. This pattern resonates with Herzberg's two-factor model, where intrinsic motivators such as appreciation and professional growth have greater lasting impact than extrinsic hygiene factors like pay alone (Alshmemri, Shahwan-Akl & Maude, 2017). Empirical studies confirm that regular acknowledgment, even when non-monetary, enhances teachers' emotional investment and classroom performance (Sobaih & Hasanein, 2020; White, P 2023).

The results also demonstrate a culturally distinctive layer of motivation in Pakistan: moral and religious reinforcement. The frequent moral-boosting meetings in Lahore and the integration of Islamic values in team activities in Faisalabad showed how collective ethical frameworks operated as intrinsic motivators. This aligns with findings from Bong et al. (2023), who emphasise that motivation is socially and culturally embedded. Such practices fulfil the higher-order needs of belonging and esteem within Maslow's hierarchy while adapting Western motivational constructs to a collectivist context.

Yet the comparison between the two cities revealed a paradox. Teachers in Lahore enjoyed greater independence but reported lower morale, while those in Faisalabad faced stricter structures yet expressed higher satisfaction. This contradiction mirrors results from Hanaysha (2016) and Shula (2023), who found that motivation increased when autonomy was accompanied by recognition and social validation. The implication is that autonomy alone cannot sustain motivation without relational support and feedback mechanisms. In terms of Herzberg's model, principals in Faisalabad succeeded in enhancing motivators (achievement, recognition), whereas

leadership in Lahore mainly reduced dissatisfiers without creating genuine engagement.

Professional Development and Workload Distribution

PD was another key factor in motivating teachers, although its implementation varied in different contexts. Teachers in Faisalabad reported more systematic training opportunities, consistent with C Lin, Shipton, Teng, Kitt, Do and Chadwick (2022), who found that structured PD stimulated creativity and job satisfaction. The intermittent and less coordinated training initiatives in Lahore limited opportunities for skills advancement, leaving many teachers professionally stagnant. This echoes Polly et al. (2021), who demonstrated that professional learning must be both continuous and participatory to influence motivation meaningfully.

The qualitative data from the study indicate that teachers preferred practical workshops and peer mentoring over theoretical sessions. This finding supports contemporary research highlighting the motivational value of experiential learning (Ghani et al., 2022). Mentorship and peer collaboration, as noted by Griffiths et al. (2021), provide emotional support and foster a sense of professional identity – critical elements of McClelland's achievement and affiliation needs. By contrast, when PD is imposed from the top down without teacher input, it risks becoming a perfunctory compliance exercise that fails to motivate.

Workload distribution further distinguished the two contexts. Teachers in Lahore perceived intense administrative burdens, a finding consistent with Forson et al. (2021), who linked excessive workloads to burnout and decreased productivity. In Faisalabad, more balanced task allocation reduced stress and enhanced motivation, reaffirming the hygiene dimension of Herzberg's theory. Fairness in workload distribution symbolises managerial respect, reinforcing Vroom's expectancy assumption that equitable effort-reward ratios sustain engagement.

Extrinsic Resources and Environmental Conditions

Adequate resources and supportive working environments are foundational for motivation. The superior provision of instructional tools like whiteboards, computers, and teaching aids resulted in teachers in Faisalabad feeling valued and competent. This corresponds with the findings of Dorta-Afonso et al. (2021) and Soto-Pérez, Sánchez-García and Núñez-Ríos (2020), who linked organisational support to employee commitment. In Lahore, despite more reliable salary payments, deficiencies in material resources and recognition diluted the motivational impact of financial stability. Thus, while extrinsic rewards such as pay address lower-order needs, they must be integrated with psychological fulfilment

mechanisms to sustain engagement, consistent with Maslow's hierarchy and Vroom's expectancy model.

International evidence supports this dual-pathway model. Studies in Myanmar (Thant & Chang, 2021) and the Philippines (Abun et al., 2021) show that teachers' satisfaction depends on both environmental resources and social validation. Faisalabad's balance between infrastructure and interpersonal support aligns closely with these observations, suggesting that hybrid motivational systems – combining tangible and relational reinforcement – yield the most sustainable results.

Theoretical Integration and Contribution

This study contributes to motivation theory by demonstrating that the classical Western frameworks of Maslow, Herzberg, McClelland, and Vroom required contextual adaptation in collectivist educational settings. Pakistani schools illustrate that motivation extends beyond individual self-actualisation towards communal belonging and moral fulfilment. The integration of moral values and collective recognition functions as a culturally embedded "meta-motivator", bridging intrinsic and extrinsic domains.

Furthermore, the comparative evidence indicates that motivation operates along a continuum shaped by leadership behaviour. Participatory leadership activates intrinsic motivators (esteem, recognition, achievement), while autocratic or indifferent leadership suppresses them despite adequate extrinsic provisions. This insight supports the dynamic interplay between hygiene and motivator factors hypothesised by Herzberg but situates it within a socio-cultural matrix of trust, morality, and shared responsibility.

The findings thus extend existing literature by offering empirical evidence from a South Asian context where motivational structures are influenced by traditional hierarchies and modern participatory reforms. In doing so, the study enriches global understanding of teacher motivation and provides practical insight into how culturally responsive leadership can revitalise public education systems.

Conclusion

In this study we examined how managerial strategies employed by public school principals influence teacher motivation in Lahore and Faisalabad, Pakistan. Using a mixed methods design that combined quantitative survey data from teachers with qualitative insight from principals, the research provides a comprehensive understanding of how leadership practices, organisational conditions, and intrinsic and extrinsic motivational factors interact within public school environments.

The findings highlight the central role of leadership behaviour in shaping teacher motivation and workplace climate. Participatory and communicative leadership practices – characterised by open dialogue, recognition of teachers' efforts, and equitable distribution of responsibilities – were associated with higher levels of teacher engagement and professional commitment. In contrast, more hierarchical leadership approaches tended to limit collaborative interaction and reduced opportunities for teachers to experience recognition and support. The comparison of school in Lahore and Faisalabad illustrates how contextual conditions influence leadership strategies and their impact on teachers' motivation.

Recognition, PD opportunities, and supportive working conditions also emerged as important factors contributing to motivation. Teachers who experienced regular acknowledgment of their achievements, access to professional learning opportunities, and adequate instructional resources reported greater job satisfaction and stronger commitment to their professional roles. These findings reinforce established motivational theories by demonstrating how intrinsic and extrinsic motivational factors operate together within educational organisations.

The study contributes to the existing literature by providing comparative empirical evidence on teacher motivation and leadership practices within Pakistan's public education system. By examining two major urban contexts with distinct administrative and socio-economic conditions, the research highlights how leadership strategies are shaped by local realities and institutional structures. This contextual perspective extends existing motivation theories by demonstrating how leadership, recognition, and professional support interact to influence teachers' engagement in collectivist educational environments.

From a practical perspective, the findings underscore the importance of strengthening participatory leadership practices in public schools. Educational policymakers and school administrators should promote leadership development initiatives that emphasise communication, collaboration, and structured recognition of teachers' contributions. Expanding opportunities for continuous PD and ensuring equitable access to teaching resources can further enhance teachers' motivation and professional effectiveness.

Although the study provides valuable insight, certain limitations should be acknowledged. The use of convenience sampling and the focus on two urban districts limit the generalisability of the findings. Future research could expand this work by examining rural settings, private institutions, and longitudinal patterns of teacher motivation in diverse educational contexts.

Overall, the study demonstrates that teacher motivation in Pakistan's public schools is shaped by the interaction of leadership practices, organisational support, and contextual conditions. When principals adopt inclusive leadership approaches that combine recognition, PD, and supportive management structures, schools are more likely to foster motivated teachers and positive learning environments that contribute to improved educational outcomes.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Authors' Contributions

TF addressed all comments and revising and editing. SA conceptualised the study and prepared the initial draft of the manuscript. All other authors, including SAJ, AZ, MUH and MFS, played critical roles in revising and editing the paper. Their contributions included addressing reviewers' comments, improving the methodology section, addressing data biases, extending the dataset, and enhancing the overall robustness of the analysis. Additionally, all authors participated in rewriting the final draft, providing expert opinions, and ensuring the quality and accuracy of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

Notes

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