



VALUING FACULTY, RETAINING TALENT: RECOGNITION AS A MEDIATOR BETWEEN HRM PRACTICES AND TEACHER RETENTION

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Abstract

This study examines the mediating role of recognition in the relationship between human resource management (HRM) practices and teacher retention in public and private universities in Punjab, Pakistan. Adopting a positivist paradigm, the study employed a quantitative, cross-sectional survey design. Data were collected from 400 university teachers selected through stratified random sampling from a target population of 23,626 teachers. A structured questionnaire was used to collect data, which were analyzed using descriptive statistics, correlation, regression, and bootstrapped mediation analysis. The findings revealed a significant positive relationship between HRM practices and teacher retention. Mediation analysis demonstrated that recognition partially mediated this relationship, with a significant indirect effect ($B = 0.079$, 95% CI [0.031, 0.136]). HRM practices significantly predicted recognition, which was positively associated with teacher retention after controlling for HRM practices. The direct effect of HRM practices on retention remained significant, indicating that recognition represents one pathway through which HRM practices are associated with teachers' intentions to remain in their institutions. These findings highlight the importance of acknowledging faculty contributions through fair, meaningful, and consistent recognition practices. Universities should therefore integrate effective recognition mechanisms into their HRM strategies to support teacher retention.

Keywords: *Human resource management practices, teacher retention, recognition, higher education, Pakistan, mediation.*

1. Introduction

Teacher retention is essential for maintaining continuity in teaching, institutional knowledge, professional relationships, and the effective implementation of educational programs. Retaining qualified teachers enables universities to sustain academic standards, support students' learning, and maintain the expertise required for teaching, research, and institutional development. Research indicates that teacher turnover is associated with multiple factors, including working conditions, professional development, leadership, job satisfaction, and the broader employment experience (Gundlach et al., 2024; See et al., 2020; Skaalvik & Skaalvik, 2017; Toropova et al., 2021). Consequently, higher education institutions need effective human resource management (HRM) systems that not only attract capable teachers but also encourage them to continue their careers within their institutions.

HRM practices influence teachers' professional experiences through development opportunities, employment security, organizational culture, work-life balance, and technology-enabled HR administration. These practices can help create supportive working environments and strengthen employees' relationships with their institutions. Research in educational settings has examined



associations between HRM practices and retention-related outcomes (Chishti et al., 2023; Kamau et al., 2021). However, the presence of formal HRM policies may not fully explain why some teachers develop stronger intentions to remain than others. Their experiences may also depend on how institutions value their contributions and communicate appreciation for their efforts. University teachers contribute through teaching, student advising, research, mentoring, curriculum development, and institutional service. When these contributions receive limited acknowledgment, teachers may perceive a gap between the effort they invest and the value their institutions place on their work.

Recognition is therefore an important organizational practice to consider when examining teacher retention. It encompasses formal acknowledgment, including awards and documented achievements, as well as informal appreciation expressed through constructive feedback and acknowledgment from supervisors and colleagues. Brun and Dugas (2008) describe employee recognition as a human resource practice that incorporates multiple perspectives and forms. Recognition can communicate that employees' contributions are noticed and valued, potentially strengthening their relationship with the organization. From a motivational perspective, Deci and Ryan (2000) emphasize the importance of experiences that support individuals' psychological needs, while perceived organizational support concerns employees' beliefs about whether their organization values their contributions and cares about their well-being (Eisenberger et al., 2002). These perspectives provide a theoretical basis for examining recognition as a mechanism through which HRM practices may be associated with teachers' intentions to remain in their institutions.

Although HRM practices and teacher retention have received attention in educational research, further investigation is needed into the processes that may explain their relationship. In particular, examining recognition as a mediating variable can help clarify whether favorable HRM practices are associated with retention partly because teachers feel that their contributions are acknowledged and appreciated. This issue is relevant in higher education, where teachers perform diverse responsibilities that may not always be reflected in conventional performance assessments or reward systems.

Accordingly, this study examines the mediating role of recognition in the relationship between HRM practices and teacher retention in public and private universities in Punjab, Pakistan. Drawing on the recognition pathway from a broader study that also examined transparency, this article focuses specifically on the indirect association between HRM practices and teachers' intentions to remain through recognition. By investigating this relationship, the study seeks to contribute to the literature on academic staff retention and provide practical insights for universities seeking to develop recognition practices that acknowledge faculty contributions. Given the cross-sectional research design, the findings are interpreted as evidence of statistical associations and mediation rather than proof of a causal mechanism.

1.2. Problem Statement

Teacher retention is a growing concern for educational institutions because high turnover can undermine institutional stability, teaching continuity, academic quality, and student outcomes. Globally, teacher turnover has been associated with dissatisfaction, workload pressures, and limited professional growth. UNESCO (2023) reported an increase in the worldwide teacher turnover rate from 4.6% in 2015 to 9.1% in 2022, while Ingersoll and Tran (2023) highlighted challenges in retaining early-career teachers in the United States. In Pakistan, particularly Punjab, teacher mobility, inadequate compensation, and challenging working conditions further emphasize the need for effective human resource management (HRM) practices (Siddiqui & Shaukat, 2021). Recruitment policy changes have also contributed to staffing challenges in the province (Alif Ailaan, 2020).



HRM practices, including self-development, job security, organizational culture, work–life balance, and technology integration, may influence teachers’ intentions to remain in their institutions. However, their effectiveness varies across contexts, and the mechanisms underlying their relationship with retention remain insufficiently understood (Easa & Orra, 2020; Khan et al., 2023). Although individual HRM practices have been linked to teacher retention (Wilcoxon et al., 2019; Richter et al., 2015), further research is needed to explain how organizational experiences shape this relationship. Recognition may be an important mechanism connecting HRM practices with teacher retention. University teachers contribute through teaching, research, mentoring, student advising, and institutional service, yet these contributions may not always receive adequate acknowledgment. Although rewards and performance appraisal have been examined in previous research (Sultan et al., 2020; M. A. Khan et al., 2019), limited attention has been given to how formal and informal recognition, including appreciation, constructive feedback, and awards, mediates the relationship between HRM practices and retention. Existing research on compensation and training provides a foundation for further investigation (Nawaz et al., 2019; Chishti et al., 2023).

Accordingly, this study examines the mediating role of recognition in the relationship between HRM practices and teacher retention in public and private universities in Punjab, Pakistan. It aims to provide context-specific evidence on how acknowledging faculty contributions may complement HRM practices in supporting teachers’ intentions to remain in their institutions.

1.3 Research Gap

Existing literature identifies compensation, career development, job security, and work–life balance as important factors influencing teacher retention (Qasim et al., 2022; Kamau et al., 2021). Although previous studies have examined compensation and training (Nawaz et al., 2019; Chishti et al., 2023), limited attention has been given to the mechanisms through which HRM practices influence teachers’ intentions to remain in their institutions.

In particular, recognition as a mediating mechanism remains insufficiently explored. Although rewards and performance appraisal have received considerable research attention (Sultan et al., 2020; Khan et al., 2019), few studies have examined how formal and informal recognition, including appreciation and awards, mediate the relationship between HRM practices and teacher retention. Jawaad et al. (2019) highlighted the relationship between recognition and organizational commitment, indicating the need for further investigation into its role in retention.

Furthermore, the role of recognition within technology-enabled HRM practices and its relationship with other organizational factors remain areas for further investigation (Jam & Jamal, 2020; Mondejar & Asio, 2022; Kamalaveni et al., 2019). Accordingly, this study addresses this gap by examining the mediating role of recognition in the relationship between HRM practices and teacher retention in public and private universities in Punjab, Pakistan.

1.4 Significance of the Study

This study is significant for university administrators, human resource professionals, and policymakers seeking to improve teacher retention through effective human resource management (HRM) practices. By examining recognition as a mediator between HRM practices and teacher retention, the study provides insight into how acknowledging faculty contributions may strengthen teachers’ intentions to remain in their institutions. It extends existing research by focusing on recognition as a mechanism linking HRM practices with retention, particularly in the context of public and private universities in Punjab, Pakistan.



Practically, the findings may help universities develop fair and meaningful recognition systems that acknowledge teachers' contributions to teaching, research, mentoring, and institutional service. Formal awards, constructive feedback, and regular appreciation may complement existing HRM practices and contribute to a supportive working environment. The study may also inform policies that integrate recognition into staff development and performance management strategies. By highlighting the potential role of recognition in teacher retention, this research can contribute to more effective HRM policies, reduced turnover-related costs, and improved institutional stability in higher education.

2. Literature Review

2.1. Teacher Retention in Higher Education

Teacher retention refers to an educational institution's ability to retain qualified and competent teachers over time. It reflects not only employment continuity but also teachers' willingness to remain engaged and committed to their institutions (Zamir, 2018; Tuan D. Nguyen, 2019). In higher education, retaining experienced faculty is essential for maintaining teaching quality, institutional knowledge, research capacity, and professional relationships. Conversely, high turnover can disrupt academic activities, increase recruitment and training costs, and weaken institutional stability (Menzies, 2023; Darling-Hammond et al., 2017).

Teacher retention is influenced by individual, organizational, and contextual factors, including leadership, professional development, job satisfaction, working conditions, and organizational culture (Skaalvik & Skaalvik, 2017; Toropova et al., 2021). Supportive institutional environments can strengthen teachers' organizational commitment, whereas inadequate professional support and limited appreciation may contribute to dissatisfaction and turnover intentions (Shuls & Flores, 2020; Zhou et al., 2022). In universities, where faculty members contribute through teaching, research, mentoring, and institutional service, retention also depends on how their professional contributions are valued. Consequently, understanding the organizational practices that encourage teachers to remain is important for developing effective faculty-retention strategies.

2.2. HRM Practices and Teacher Retention

Human resource management (HRM) practices encompass the policies and procedures through which institutions recruit, develop, evaluate, reward, and retain their employees. In educational institutions, these practices include professional development, performance appraisal, compensation, career management, employment security, and employee relations. Strategic HRM emphasizes aligning these practices with institutional objectives while supporting employees' motivation, professional growth, and organizational commitment (Permatasari & Tandiyuk, 2023; Breaz & Valahia, 2024).

Research suggests that well-designed HRM practices can improve teacher satisfaction, organizational commitment, and retention by creating supportive professional environments (Tran & Smith, 2020). Professional development, supportive leadership, and participative decision-making are particularly relevant to teacher retention, while fair performance appraisal and appropriate remuneration can strengthen employees' perceptions of organizational support (Darling-Hammond et al., 2017; Hancock et al., 2017). However, the effects of HRM practices may vary according to institutional resources, organizational culture, and teachers' professional expectations (Toropova et al., 2021).

Social Exchange Theory provides a useful perspective for understanding this relationship. When teachers perceive that their institutions invest in their development and treat them as valued members, they may reciprocate through greater commitment and willingness to remain. Recognition is particularly relevant to this process because HRM practices may be perceived differently depending



on whether teachers believe their efforts and achievements are acknowledged. Accordingly, examining recognition as a mediator can help explain how HRM practices are associated with teacher retention beyond their direct relationship with retention (Bogler & Berkovich, 2022; Li et al., 2025).

2.3. Recognition in Educational Institutions

Recognition refers to the acknowledgment and appreciation of employees' efforts, achievements, and contributions within an organization. In educational institutions, it may take formal forms, such as awards, promotions, merit-based rewards, and performance-related incentives, or informal forms, including verbal appreciation, constructive feedback, written praise, and acknowledgment from supervisors and colleagues (Benito & Scott-Milligan, 2011). These practices communicate that teachers' professional contributions are noticed and valued.

Recognition is particularly important in higher education because faculty members undertake diverse responsibilities, including teaching, research, student advising, mentoring, and institutional service. Although financial rewards remain relevant, non-financial recognition can also contribute to teachers' sense of professional value and motivation (See et al., 2020). Appreciation and constructive feedback may reinforce teachers' confidence in their abilities, while formal recognition can acknowledge achievement and professional contribution. The effectiveness of recognition, however, depends on whether it is meaningful, consistent, and perceived as fair (Kezar & Elrod, 2020).

The importance of recognition can be explained through motivational and relational perspectives. Self-Determination Theory emphasizes the role of psychological needs in supporting intrinsic motivation and work engagement (Laguerre & Barnes-Farrell, 2025). Similarly, Social Exchange Theory suggests that employees may reciprocate positive organizational treatment through commitment and loyalty (Collie, 2023). Recognition may also strengthen perceived organizational support by communicating that the institution values employees' contributions and well-being (Wang & Zhou, 2022). These perspectives suggest that recognition is more than a reward; it can shape teachers' perceptions of their relationship with the institution.

2.4. Recognition and Teacher Retention

Recognition can influence teacher retention by strengthening job satisfaction, motivation, engagement, and organizational commitment. Teachers who feel that their contributions are appreciated may develop a stronger sense of belonging and professional identity, whereas inadequate recognition can contribute to dissatisfaction and disengagement (Skaalvik & Skaalvik, 2017). Research in educational settings identifies recognition as an important component of supportive working environments and a factor associated with teachers' willingness to remain in their institutions (Darling-Hammond et al., 2017; Wartenberg et al., 2023).

Formal and informal recognition may support retention through complementary mechanisms. Formal awards and merit-based rewards acknowledge measurable achievements, while constructive feedback and everyday appreciation recognize ongoing effort and professional contribution. Recognition may be especially meaningful when it reflects teachers' actual responsibilities and accomplishments rather than being limited to isolated performance indicators. Research suggests that recognition integrated into professional development, performance management, and career advancement can strengthen the positive association between these practices and retention (Makhuzeni & Barkhuizen, 2015).

Nevertheless, recognition is unlikely to operate identically across all institutions. Its perceived value may depend on leadership practices, institutional culture, fairness, and the relevance of the recognition offered. Recognition that is perceived as inconsistent or inequitable may fail to produce the intended motivational benefits. Therefore, universities need to consider both the availability of

recognition mechanisms and teachers' perceptions of their quality and meaningfulness (Thibault Landry et al., 2017).

2.5. The Mediating Role of Recognition

The mediating role of recognition provides a framework for explaining how HRM practices may be associated with teacher retention. HRM practices such as professional development, performance appraisal, and career advancement create opportunities to support and evaluate faculty contributions. However, teachers may respond more positively to these practices when they perceive that their efforts, achievements, and professional growth are genuinely acknowledged. Recognition may therefore help explain the pathway through which HRM practices relate to retention intentions (Khan et al., 2020; Makhuzeni & Barkhuizen, 2015).

From a Social Exchange Theory perspective, effective HRM practices can signal institutional investment in teachers, while recognition reinforces the perception that their contributions are valued. Teachers may reciprocate this perceived support through stronger organizational commitment and a greater willingness to remain. Consistent with this interpretation, research indicates that meaningful recognition is associated with positive employee attitudes and that its absence may contribute to disengagement and turnover intentions (Wartenberg et al., 2023; Wang & Zhou, 2022).

Recognition may also influence how teachers interpret the purpose of HRM practices. For example, professional development may communicate institutional support when teachers' achievements and newly acquired skills are acknowledged. Similarly, performance appraisal may be more motivating when it includes constructive feedback and recognition of accomplishments rather than focusing exclusively on shortcomings (Ehmann et al., 2024). These processes suggest that recognition may function as an intervening mechanism connecting HRM practices with teacher retention.

Although existing research supports the relevance of recognition to employee motivation and organizational commitment, its specific mediating role in the HRM practices–teacher retention relationship requires further investigation in higher education. Previous research has identified recognition as relevant to employee outcomes, but differences in institutional contexts and recognition practices warrant additional empirical examination (Jawaad et al., 2019; Thibault Landry et al., 2017). This issue is particularly relevant to public and private universities in Punjab, Pakistan, where faculty-retention strategies need to reflect the professional responsibilities and organizational experiences of university teachers.

Accordingly, the present study examines recognition as a mediator between HRM practices and teacher retention in public and private universities in Punjab, Pakistan. By focusing on this indirect relationship, the study seeks to determine whether recognition helps explain the association between HRM practices and teachers' intentions to remain in their institutions. The findings can contribute to a more context-specific understanding of recognition in faculty-retention strategies.

3. Methodology

This study adopted a positivist research philosophy and a quantitative, cross-sectional survey design to examine the relationship between human resource management (HRM) practices and teacher retention, with particular emphasis on the mediating role of recognition. The target population comprised 23,626 teachers employed in public and private universities in Punjab, Pakistan (Higher Education Commission [HEC], 2023). A sample of 400 university teachers was selected through stratified random sampling, ensuring representation from both public and private universities, genders, and divisions. This approach enabled the study to examine the proposed relationships within the context of Pakistani higher education.



Data were collected using a structured questionnaire comprising closed-ended items measured on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire measured HRM practices, recognition, and teacher retention. To assess the instrument's quality, eight management-science experts evaluated its content validity, and a pilot study involving 40 respondents was conducted to identify ambiguities and improve questionnaire clarity. Internal consistency was assessed using Cronbach's alpha. The final questionnaire was administered to the selected university teachers to obtain data on their perceptions of institutional HRM practices, recognition, and intentions to remain in their institutions.

The collected data were analyzed using SPSS and R, employing descriptive statistics, normality testing, Pearson correlation, regression analysis, and bootstrapped mediation analysis. The mediation analysis examined whether recognition statistically mediated the relationship between HRM practices and teacher retention. The indirect effect was evaluated using a 95% bootstrap confidence interval, with mediation considered statistically significant when the interval excluded zero. This analytical approach enabled the assessment of the direct relationship between HRM practices and teacher retention alongside the indirect relationship operating through recognition. Given the cross-sectional design, the results were interpreted as statistical associations rather than definitive evidence of causality.

4. Results and Analysis

4.1. Descriptive Statistics

Descriptive statistics were examined to understand respondents' perceptions of recognition and teacher retention. The analysis was based on responses from 400 university teachers employed in public and private universities in Punjab, Pakistan. As presented in Table 1, recognition had a mean score of 3.437 (SD = 0.492), while teacher retention had a mean score of 3.483 (SD = 0.434). Both means were above the midpoint of the five-point measurement scale, indicating moderately favorable perceptions of recognition and intentions to remain in their institutions.

Table 1. Descriptive Statistics of Recognition and Teacher Retention

Variable	N	Mean	SD	95% CI for Mean
Recognition	400	3.437	0.492	[3.388, 3.485]
Teacher retention	400	3.483	0.434	[3.440, 3.526]

These results provide an overview of the two focal constructs. However, descriptive statistics alone do not establish whether recognition explains the relationship between HRM practices and teacher retention. Therefore, regression and bootstrapped mediation analyses were conducted to assess the proposed relationships.

4.2. Regression Analysis of the Recognition Mediation Model

The mediation model examined whether recognition statistically mediated the relationship between HRM practices and teacher retention. Three relationships were assessed: the association between HRM practices and recognition (Path a), the association between recognition and teacher retention while controlling for HRM practices (Path b), and the direct association between HRM practices and teacher retention after recognition was included (Path c').



Table 2. Regression Results for the Recognition Mediation Model

th	Pa ip	Relationsh	B	SE	t	p	% CI	95
a	HRM practices → Recognition	90	.301	.163	3.81*	.002	[.192, .589]	
b	Recognition → Teacher retention	02	.241	.096	4.91*	.003	[.123, .282]	
c'	HRM practices → Teacher retention, controlling for recognition	01	.683	.025	7.21*	.007	[.437, .764]	
c	Total effect of HRM practices on teacher retention	80	.684	.087	8.01*	.005	[.514, .845]	

Note. B = unstandardized regression coefficient; SE = standard error; CI = confidence interval. All reported p-values were below .001; they are displayed as $p < .001$.

The results in Table 2 demonstrate that HRM practices were positively associated with recognition ($B = .390$, $SE = .101$, $t = 3.863$, $p < .001$). The confidence interval did not include zero, indicating a statistically significant association. The corresponding regression model explained 3.6% of the variance in recognition ($R^2 = .036$), with ($F(1,398) = 14.925$), ($p < .001$). This finding suggests that more favorable HRM practices were associated with higher perceived recognition among university teachers.

Recognition was also positively associated with teacher retention after controlling for HRM practices ($B = .202$, $SE = .041$, $t = 4.996$, $p < .001$). Its confidence interval, [.123, .282], excluded zero, supporting the statistical significance of this relationship. The combined model containing HRM practices and recognition was statistically significant, ($R = .438$), ($R^2 = .192$), ($F(2,397) = 47.149$), ($p < .001$). Together, the two predictors accounted for 19.2% of the variance in teacher retention.

The total effect of HRM practices on teacher retention was also statistically significant ($B = .680$, $SE = .084$, $t = 8.087$, $p < .001$). The total-effect model explained 14.1% of the variance in retention ($(R^2 = .141)$). When recognition was included in the model, the direct effect of HRM practices remained significant ($B = .601$, $SE = .083$, $t = 7.225$, $p < .001$). The reduction from the total effect to the direct effect indicates that part of the observed relationship was statistically accounted for by recognition.

4.3. Bootstrapped Mediation Analysis

Bootstrapped mediation analysis was used to determine whether the indirect relationship between HRM practices and teacher retention through recognition was statistically significant. The indirect effect was evaluated using its bootstrap confidence interval, with an interval excluding zero indicating statistical significance.

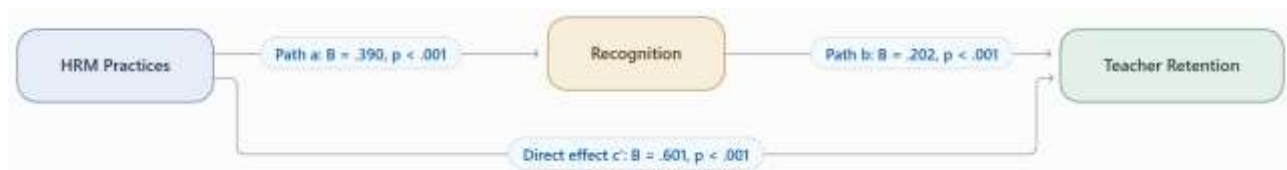
Table 3. Direct, Indirect, and Total Effects of HRM Practices on Teacher Retention Through Recognition

Effect	B	Boot SE	95% Bootstrap CI	Decision
Total effect	.680	.084	[.515, .845]	Significant
Direct effect	.601	.083	[.437, .764]	Significant
Indirect effect through recognition	.079	.027	[.031, .136]	Significant

The bootstrapped indirect effect through recognition was positive and statistically significant ($B = .079$, $\text{Boot SE} = .027$, $95\% \text{ CI } [.031, .136]$). Because the confidence interval did not contain zero, the results support the proposed indirect relationship between HRM practices and teacher retention through recognition.

The indirect effect represented approximately 11.6% of the total effect of HRM practices on teacher retention. Furthermore, the direct effect remained statistically significant after recognition was included in the model. Taken together, these findings support **partial mediation**: recognition accounts for a statistically significant portion of the relationship between HRM practices and teacher retention, while the remaining direct association indicates that other pathways may also contribute.

The results therefore support the proposed mediating role of recognition. They suggest that HRM practices are associated with teachers' intentions to remain in their institutions both directly and indirectly through recognition. However, because the study used a cross-sectional design, the findings demonstrate statistical mediation rather than establishing a causal process.



5. Findings

The findings demonstrate a significant positive relationship between human resource management (HRM) practices and teacher retention, with recognition serving as a partial mediator in this relationship. Based on data from 400 university teachers, the analysis provides evidence that HRM practices are associated with both teachers' perceptions of recognition and their intentions to remain in their institutions.

First, HRM practices significantly predicted recognition ($B = 0.390$, $\text{SE} = 0.101$, $p < .001$). This finding indicates that more favorable HRM practices were associated with higher levels of perceived recognition among university teachers. However, the model explained 3.6% of the variance in recognition, suggesting that other organizational and interpersonal factors may also contribute to teachers' perceptions of recognition.

Second, recognition significantly and positively predicted teacher retention after controlling for HRM practices ($B = 0.202$, $SE = 0.041$, $p < .001$). The combined regression model explained 19.2% of the variance in teacher retention, indicating that HRM practices and recognition jointly contributed to the statistical prediction of teachers' intentions to remain in their institutions.

Third, the total effect of HRM practices on teacher retention was positive and statistically significant ($B = 0.680$, $SE = 0.084$, $p < .001$). When recognition was included in the regression model, the direct effect of HRM practices remained significant ($B = 0.601$, $SE = 0.083$, $p < .001$). This reduction in the coefficient suggests that recognition accounts for part, but not all, of the relationship between HRM practices and teacher retention.

Finally, the bootstrapped mediation analysis confirmed a statistically significant indirect effect of HRM practices on teacher retention through recognition ($B = 0.079$, $Boot\ SE = 0.027$, 95% CI [0.031, 0.136]). Since the confidence interval excluded zero, the results support the mediating role of recognition. The indirect effect accounted for approximately 11.6% of the total effect, while the remaining direct effect continued to be statistically significant. Accordingly, the findings support **partial mediation by recognition**.

Overall, the findings suggest that HRM practices are associated with teacher retention through both a direct relationship and an indirect relationship involving recognition. Recognition represents a relevant mechanism through which HRM practices may be linked to teachers' intentions to remain in their institutions. Nevertheless, the cross-sectional nature of the data means that these relationships should not be interpreted as definitive evidence of causality.

6. Discussion

The findings of this study highlight the mediating role of recognition in the relationship between human resource management (HRM) practices and teacher retention in public and private universities in Punjab, Pakistan. The results demonstrate that HRM practices are positively associated with recognition and teacher retention, while recognition remains significantly associated with retention after controlling for HRM practices. These findings suggest that the relationship between HRM practices and teachers' intentions to remain in their institutions may be partly explained by the extent to which teachers perceive their contributions to be acknowledged and valued.

The significant relationship between HRM practices and recognition ($B = 0.390$, $p < .001$) indicates that more favorable HRM practices are associated with higher perceived recognition among university teachers. This finding is consistent with the perspective that institutional practices relating to professional development, performance evaluation, and employee management can communicate how an organization values its staff. When teachers perceive HRM practices as supportive, they may also be more likely to feel that their professional contributions are recognized. This interpretation aligns with Social Exchange Theory, which suggests that employees may respond to favorable organizational treatment with stronger commitment and positive work-related attitudes.

Furthermore, recognition was positively associated with teacher retention after controlling for HRM practices ($B = 0.202$, $p < .001$). This result highlights the potential importance of acknowledging faculty contributions to teaching, research, mentoring, and institutional service. Recognition may help teachers perceive that their efforts are valued, thereby strengthening their relationship with their institutions and their willingness to remain. This interpretation is also consistent with research emphasizing the relevance of perceived organizational support and recognition to employees' work-related attitudes (Eisenberger et al., 2002; Brun & Dugas, 2008). However, the present results



establish a statistical association and do not independently demonstrate the psychological processes responsible for it.

The mediation analysis provides further insight into the relationship between HRM practices and teacher retention. The indirect effect through recognition was statistically significant ($B = 0.079$, 95% CI [0.031, 0.136]), as the bootstrapped confidence interval excluded zero. At the same time, the direct effect of HRM practices on retention remained significant after recognition was included in the model ($B = 0.601$, $p < .001$). This pattern supports partial mediation, indicating that recognition accounts for one part of the relationship between HRM practices and teacher retention, while the remaining relationship may reflect other organizational or employment-related factors.

The indirect effect represented approximately 11.6% of the total effect of HRM practices on teacher retention. Although this proportion indicates that recognition explains a relatively modest part of the overall relationship, its statistical significance underscores its relevance within the proposed model. The findings suggest that effective HRM practices and meaningful recognition should be considered complementary rather than interchangeable approaches to supporting faculty retention. Recognition alone may not address all factors influencing teachers' decisions to stay, but it may strengthen the relationship between institutional practices and teachers' retention intentions.

These findings have practical implications for university management. Institutions may consider integrating recognition into existing HRM systems through constructive performance feedback, acknowledgment of teaching and research achievements, fair awards, and appreciation of contributions to institutional development. Recognition mechanisms should be meaningful, consistently applied, and appropriate to the diverse responsibilities of faculty members. Universities should also ensure that recognition complements broader HRM practices, including professional development and supportive working conditions, rather than relying on isolated rewards as their primary retention strategy.

Overall, this study contributes to understanding teacher retention by demonstrating the statistical mediating role of recognition in the relationship between HRM practices and retention intentions within Pakistani higher education. Nevertheless, the cross-sectional design limits conclusions about causality, and the findings may not be generalizable beyond the sampled context. Future studies could use longitudinal designs and samples from a wider range of higher education institutions to investigate how recognition relates to teachers' retention over time. Further research could also examine whether the relationship varies across public and private universities or according to different forms of recognition.

7. Conclusion

This study examined the mediating role of recognition in the relationship between human resource management (HRM) practices and teacher retention in public and private universities in Punjab, Pakistan. The findings revealed that HRM practices were positively associated with recognition and teacher retention, while recognition also demonstrated a significant positive association with retention when HRM practices were controlled for. These results highlight the relevance of recognition in understanding the relationship between institutional HRM practices and teachers' intentions to remain in their institutions.

The bootstrapped mediation analysis confirmed a significant indirect effect of HRM practices on teacher retention through recognition ($B = 0.079$, 95% CI [0.031, 0.136]). As the direct effect remained significant after recognition was included in the model, the results supported partial mediation. This indicates that recognition accounts for part of the relationship between HRM



practices and teacher retention, although other factors may also contribute to teachers' decisions to remain. The findings therefore emphasize the importance of considering not only the HRM practices universities implement but also the extent to which teachers perceive their contributions to be acknowledged and valued.

Practically, universities may benefit from incorporating meaningful recognition into their HRM strategies through constructive feedback, acknowledgment of teaching and research achievements, fair awards, and appreciation of institutional contributions. Such practices should complement broader efforts to provide supportive working conditions and professional development opportunities. Overall, this study contributes to the literature by providing empirical evidence of recognition's mediating role in the HRM practices–teacher retention relationship within Pakistani higher education. However, the cross-sectional design limits causal interpretation, and further research using longitudinal designs and broader institutional samples could provide additional insight into how recognition relates to faculty retention over time.

8. Recommendations

Based on the findings, several recommendations can be proposed for universities seeking to strengthen teacher retention through effective human resource management (HRM) practices.

First, universities should integrate meaningful recognition into their HRM strategies. Faculty contributions to teaching, research, student mentoring, curriculum development, and institutional service should be acknowledged through formal and informal mechanisms. Awards, constructive feedback, appreciation from academic leaders, and acknowledgment of professional achievements may help teachers feel that their contributions are valued.

Second, universities should establish fair and consistent recognition policies. Transparent eligibility criteria, clearly defined performance indicators, and equitable opportunities for recognition can help minimize perceptions of favoritism and strengthen teachers' confidence in institutional practices. Recognition should reflect diverse academic contributions rather than focusing exclusively on research publications or other narrowly defined performance indicators.

Third, university administrators and department heads should incorporate regular appreciation and constructive feedback into their leadership practices. Timely acknowledgment of faculty efforts can complement formal reward systems and help create a supportive academic environment. Training academic leaders to recognize achievements fairly and consistently may further strengthen these practices.

Finally, recognition should complement rather than replace broader HRM practices. Since the findings indicate partial mediation, universities should continue improving professional development opportunities, employment conditions, organizational culture, and work–life balance alongside recognition initiatives. The effectiveness of recognition policies should also be reviewed periodically through faculty feedback and retention-related indicators.

9. Limitations of the Study

This study has several limitations that should be considered when interpreting its findings. First, the cross-sectional survey design captures respondents' perceptions at a single point in time. Although the mediation analysis identified a significant indirect association between HRM practices and teacher retention through recognition, the design does not establish causal relationships or confirm how these relationships develop over time.

Second, the study was conducted among 400 teachers in public and private universities in Punjab, Pakistan. Although the sample included representation from both sectors, the findings may not be



generalizable to universities in other provinces, countries, or educational settings with different employment policies and institutional cultures.

Third, the study relied on questionnaire-based self-reported data. Responses may therefore reflect individual perceptions and may be influenced by common-method bias or social desirability. In addition, the mediation model focused specifically on recognition; other psychological or organizational mechanisms that may explain the relationship between HRM practices and teacher retention were not examined in this article.

Finally, the indirect effect through recognition was statistically significant but accounted for approximately 11.6% of the total effect. This indicates that recognition explains only part of the observed relationship, and other factors may contribute to teachers' intentions to remain in their institutions.

10. Future Research Directions

Future research should employ longitudinal designs to examine how HRM practices, recognition, and teacher retention intentions change over time. Such designs could help establish temporal relationships between the variables and provide stronger evidence regarding the proposed mediation mechanism. Experimental or quasi-experimental studies could also assess whether introducing structured recognition programs is associated with improvements in faculty retention outcomes.

Further studies should include universities from additional provinces and countries to examine whether the relationships identified in Punjab are consistent across different higher education contexts. Comparisons between public and private universities may also reveal whether institutional ownership, employment arrangements, and organizational culture influence the effectiveness of recognition practices.

Researchers could also distinguish between formal recognition, such as awards and performance-related rewards, and informal recognition, such as appreciation and constructive feedback. Examining these forms separately may clarify which recognition practices are most strongly associated with teachers' retention intentions. In addition, future studies could investigate other potential mediators and moderators, including organizational commitment, job satisfaction, perceived organizational support, leadership practices, and organizational justice.

Finally, future research should consider objective or longitudinal indicators of retention, such as actual faculty turnover and employment duration, alongside self-reported intentions to remain. This would help determine whether the relationships observed in the present study extend beyond retention intentions to actual employment outcomes.

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