



The Mediating and Moderating Effect on the Relationship Between Performance Appraisal, Leader-Member Exchange and Job Performance in Public Higher Educational Institutions

Muhammad Aamir Khan¹



| Muhammad Asghar Khan^{2*}



Abstract

This study examines the impact of performance appraisal (PA) on job performance (JP) of employees working in public higher education institutions (HEIs) in Pakistan, with a focus on the mediating role of leader-member exchange (LMX) and the moderating role of organizational commitment (OC). Drawing on organizational justice theory and social exchange theory, the research applied structural equation modeling (SEM) using data collected from 332 employees across 12 public HEIs in Islamabad. Findings indicate that PA has a significant positive effect on JP, while LMX strengthens this relationship as a mediator. Furthermore, OC enhances the association between PA and LMX, confirming its role as a moderator. The results highlight the importance of transparent and feedback-driven appraisal systems in improving employee performance within HEIs. The study contributes theoretically by integrating LMX and OC in the PA–JP relationship and offers practical recommendations for university administrators to improve HRM practices.

Keywords: Performance Appraisal, Leader-Member Exchange, Job Performance, Organizational Commitment, Higher Education, Pakistan

Author's Affiliation:

Institution: International Islamic University Islamabad¹⁻²

Country: Pakistan

Corresponding Author's Email: *muhammad.asghar@iiu.edu.pk

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1. INTRODUCTION

Higher education institutions (HEIs) are critical for national development as they nurture intellectual capital and provide skilled human resources capable of meeting global challenges. They serve as knowledge hubs that drive innovation, social transformation, and economic progress (Altbach, Reisberg, & Rumbley, 2009). In Pakistan, public HEIs have expanded rapidly over the last two decades, yet they continue to face challenges such as faculty retention, outdated curricula, bureaucratic governance, and low staff morale (Javed & Ahmad, 2014). Among these challenges, inadequate performance evaluation systems have been repeatedly highlighted as a barrier to enhancing institutional effectiveness (Iqbal, Akbar, & Budhwar, 2015). Academic staff play a pivotal role in ensuring teaching quality, research productivity, and institutional competitiveness. Consequently, assessing their performance through effective appraisal systems is essential for improving organizational outcomes and meeting the benchmarks of global higher education. Performance appraisal (PA) is one of the most important tools of human resource management (HRM) as it facilitates employee evaluation, development, and decision-making (Armstrong, 2010). An effective appraisal system provides feedback, recognizes contributions, and identifies areas for growth, ultimately motivating employees to improve performance (Boswell & Boudreau, 2002). However, in the context of Pakistan's HEIs, performance appraisals are often criticized for being inconsistent, overly subjective, and disconnected from actual performance outcomes (Kim & Holzer, 2015). Weaknesses in appraisal mechanisms can generate perceptions of unfairness and bias, which in turn lead to dissatisfaction, disengagement, and diminished commitment among academic staff (Greenberg, 1986; Yildiz, 2016).

To address these challenges, scholars have argued for integrating leadership quality and organizational commitment into the study of appraisal systems (Graen & Uhl-Bien, 1995; Meyer & Allen, 1991). Leader-member exchange (LMX) theory suggests that leaders develop differentiated relationships with subordinates, and high-quality LMX relationships foster trust, loyalty, and higher performance. Similarly, organizational commitment (OC) reflects employees' psychological attachment to their institutions, which enhances their willingness to contribute positively despite organizational shortcomings.

Therefore, this study explores the relationship between PA and job performance (JP) while examining LMX as a mediator and OC as a moderator. By doing so, it provides empirical evidence on how appraisal practices, leadership quality, and employee commitment jointly shape staff performance in public HEIs in Pakistan. This research not only contributes to HRM literature but also offers practical insights for improving performance management systems in the higher education sector.

2. LITERATURE REVIEW

Job performance has been extensively studied as a critical determinant of organizational effectiveness and is often defined as the efficiency and effectiveness with which employees accomplish their assigned duties (Campbell, 1990). Scholars generally view job performance as encompassing task, contextual, and adaptive dimensions (Borman & Motowidlo, 1997; Pulakos et al., 2000), all of which are relevant in higher education institutions (HEIs), where faculty roles extend beyond teaching to include research, administration, and community engagement (Henard & Leprince-Ringuet, 2008). One of the key factors influencing job performance is performance appraisal (PA), which serves as a structured mechanism for evaluating employee contributions and guiding both administrative and developmental decisions (Murphy & Cleveland, 1991; DeNisi & Murphy, 2017). Although an effective PA system can motivate staff and enhance productivity by ensuring fairness and constructive feedback (Boswell & Boudreau, 2002), in Pakistan's public HEIs these systems are often criticized for being subjective and inconsistent, thereby undermining employee morale and organizational performance (Iqbal, Akbar, & Budhwar, 2015; Kim & Holzer, 2015). Leadership quality also plays a critical role in shaping employee outcomes, with leader-member exchange (LMX) theory highlighting the importance of trust, respect, and mutual obligation in leader-subordinate relationships (Graen & Uhl-Bien, 1995; Liden, Sparrowe, & Wayne, 1997). High-quality LMX relationships foster stronger motivation and performance, whereas low-quality relationships may lead to disengagement (Cropanzano & Mitchell, 2005; Teng, Huang, & Fang, 2020). Similarly, organizational commitment (OC) has been identified as an important predictor of employee behavior and performance. Meyer and Allen's (1991) three-component model—affectionate, continuance, and normative commitment—suggests that employees with higher commitment demonstrate greater loyalty, lower turnover, and stronger performance outcomes (Meyer et al., 2002; Adil & Qaiser, 2020). In the HEI context, committed faculty are more receptive to feedback, more engaged in research and teaching, and more likely to align with institutional goals (Yildiz, 2016). Taken together, the literature suggests that PA directly enhances job performance, but its effectiveness is shaped by the mediating role of LMX and the moderating role of OC. Based on these insights, the present study hypothesizes that PA positively influences both JP and LMX, that LMX enhances JP and mediates the PA-JP relationship, and that OC strengthens the PA-LMX link, thereby providing a comprehensive framework for understanding employee performance in public HEIs of Pakistan.

2.1 Job Performance

Job performance is one of the most widely studied constructs in organizational behavior and human resource management. It refers to the degree to which employees effectively and efficiently carry out assigned tasks to achieve organizational objectives (Campbell, 1990). Scholars commonly categorize job performance into three dimensions: task performance, contextual performance, and adaptive performance (Borman & Motowidlo, 1997).

- Task performance represents the execution of core duties explicitly required in one's job description. For academic staff, this includes teaching, preparing lectures, assessing students, and publishing research.
- Contextual performance involves discretionary behaviors that contribute to the organizational climate, such as helping colleagues, mentoring students, or engaging in committees (Organ, 1997).
- Adaptive performance refers to the ability of employees to adjust to dynamic work demands, such as incorporating new technologies in teaching or adapting to policy changes (Pulakos et al., 2000).

In higher education institutions (HEIs), job performance encompasses a unique set of responsibilities, including teaching, research productivity, administrative duties, and community engagement (Darling-Hammond, 2010). Research shows that faculty performance directly influences institutional quality, accreditation rankings, and societal reputation (Henard & Leprince-Ringuet, 2008). Therefore, understanding the factors that shape job performance is crucial for sustainable academic excellence.

2.2 Performance Appraisal

Performance appraisal (PA) is a structured system used to evaluate employee contributions, provide feedback, and inform administrative and developmental decisions (Murphy & Cleveland, 1991). Effective appraisal systems not only assess past performance but also guide future development through training, mentoring, and career planning (DeNisi & Murphy, 2017).

In educational settings, appraisal mechanisms typically evaluate teaching effectiveness, research output, publication quality, and institutional service (Iqbal, Akbar, & Budhwar, 2015). A well-designed PA system serves two purposes:

- Administrative (e.g. promotions, salary increments, tenure decisions).
- Developmental (e.g. training needs, professional growth, career counseling).

However, appraisal systems in Pakistan's public HEIs face several criticisms. Scholars argue that they are often subjective, inconsistent, and disconnected from organizational performance outcomes (Kim & Holzer, 2015). Weak appraisal mechanisms can demotivate employees, create perceptions of unfairness, and increase turnover (Greenberg, 1986; Yildiz, 2016). By contrast, transparent and fair appraisals foster trust, motivation, and improved job performance (Boswell & Boudreau, 2002).

2.3 Leader-Member Exchange (LMX)

Leader-member exchange (LMX) theory focuses on the quality of the relationship between leaders and subordinates. Graen and Uhl-Bien (1995) argue that leaders form unique dyadic relationships with employees, resulting in in-groups (high-quality exchanges) and out-groups (low-quality exchanges). High-quality LMX is characterized by trust, respect, and mutual obligation, leading to higher job satisfaction, commitment, and performance (Liden, Sparrowe, & Wayne, 1997).

Employees in high-LMX relationships often receive more support, resources, and developmental opportunities, which motivates them to reciprocate through improved performance (Cropanzano & Mitchell, 2005). Conversely, low-LMX relationships can result in disengagement and reduced performance. In HEIs, department heads and academic supervisors play a critical role in shaping LMX. Strong leader-member relationships enhance faculty motivation, foster collaborative research, and promote commitment to institutional goals (Teng, Huang, & Fang, 2020). Thus, LMX is not only a direct predictor of job performance but also a mechanism through which appraisal practices influence employee outcomes.

2.4 Organizational Commitment (OC)

Organizational commitment (OC) refers to the psychological attachment of employees to their organization. Meyer and Allen's (1991) three-component model conceptualizes OC as:

- Affective commitment (emotional attachment and identification with the organization).
- Continuance commitment (perceived costs of leaving the organization).
- Normative commitment (a sense of obligation to remain).

High levels of commitment lead to loyalty, reduced turnover, and enhanced job performance (Meyer et al., 2002). In HEIs, committed faculty members are more likely to engage in research, adopt innovative teaching practices, and contribute to institutional development (Adil & Qaiser, 2020). Moreover, OC amplifies the effects of leadership and appraisal practices. Employees with strong commitment are more receptive to feedback and more likely to respond positively to fair and supportive performance appraisal systems (Yildiz, 2016). Therefore, OC acts as a contextual factor that strengthens the link between PA, LMX, and JP.

2.5 Hypotheses Development

Drawing from the above review, the following hypotheses were developed:

H1: Performance appraisal positively influences job performance.

H2: Performance appraisal positively affects leader-member exchange.

H3: Leader-member exchange positively influences job performance.

H4: Leader-member exchange mediates the relationship between performance appraisal and job performance.

H5: Organizational commitment moderates the relationship between performance appraisal and leader-member exchange.

3. METHODOLOGY

The methodology of this study was designed to provide a rigorous and systematic framework for testing the proposed hypotheses. Since the primary objective was to investigate the mediating and moderating effects of leader-member exchange (LMX) and organizational commitment (OC) in the relationship between performance appraisal (PA) and job performance (JP), a quantitative research strategy was deemed most appropriate. Quantitative designs allow for the use of standardized instruments, statistical testing, and generalizability of findings across

larger populations (Creswell, 2014). In particular, a cross-sectional, survey-based approach was chosen because it enables researchers to collect data at a single point in time and examine relationships among variables efficiently, which is highly suitable for organizational studies involving large employee groups.

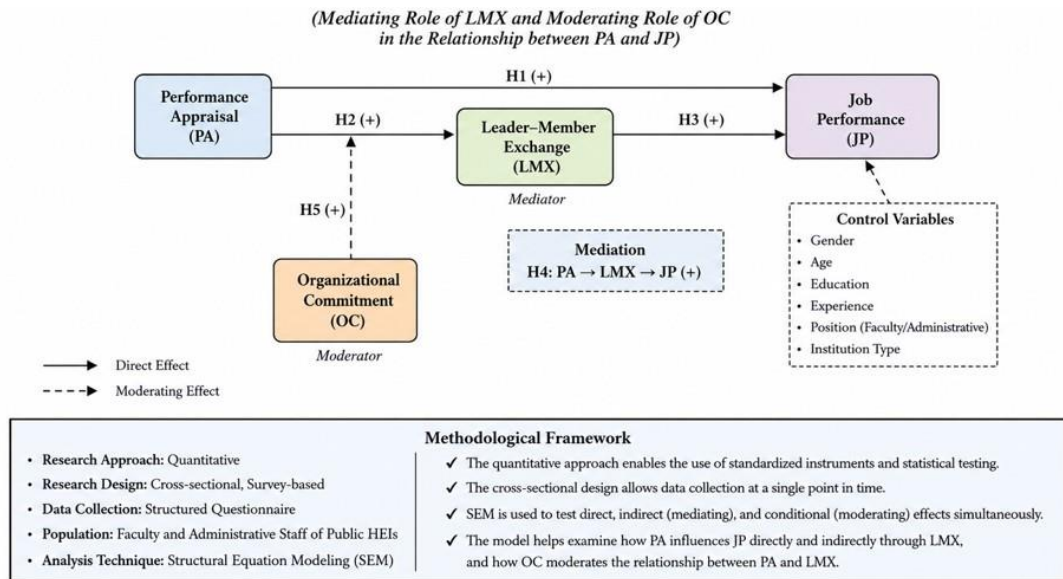


Figure 1: Research Model of study

3.1 Research Design

The study adopted a quantitative, cross-sectional design using a structured questionnaire as the primary data collection tool. This design was appropriate as it facilitated the testing of theoretically derived hypotheses through empirical data while minimizing time and resource constraints. Moreover, the survey-based approach allowed for the capture of diverse responses across faculty and administrative staff, thereby providing a holistic view of performance appraisal practices and their outcomes in higher education institutions (HEIs).

3.2 Population and Sample

The population consisted of academic and administrative staff from 12 public HEIs located in Islamabad, Pakistan. These institutions were selected because they represent a significant portion of the higher education workforce and are directly regulated by the Higher Education Commission (HEC) of Pakistan. To ensure representativeness, a stratified random sampling technique was employed, dividing respondents into academic and administrative strata before random selection. A total of 332 usable questionnaires were obtained, meeting the recommended minimum sample size for structural equation modeling (SEM), which typically requires at least 200 responses (Hair et al., 2010). The relatively large sample ensured sufficient statistical power for testing mediation and moderation effects.

3.3 Instrumentation

The study used a structured questionnaire consisting of validated measurement scales drawn from existing literature. All items were rated on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

- *Performance Appraisal (PA)*: Measured through dimensions such as feedback, fairness, and recognition, adapted from previously validated HRM instruments (Murphy & Cleveland, 1991).
- *LeaderMember Exchange (LMX)*: Measured using the well-established LMX-7 scale developed by Graen and Uhl-Bien (1995), which captures the quality of leader–subordinate relationships.
- *Job Performance (JP)*: Measured using self-reported indicators covering teaching quality, research contributions, administrative duties, and collegial behavior, following the framework of Borman and Motowidlo (1997).
- *Organizational Commitment (OC)*: Measured using Meyer and Allen's (1991) three-component model of affective, continuance, and normative commitment.

To ensure content validity, the questionnaire was reviewed by three academic experts in HRM and pilot-tested on a small sample of HEI employees. Minor modifications in wording were made to improve clarity.

3.4 Data Analysis

Data were analyzed using structural equation modeling (SEM) with AMOS software, as SEM allows simultaneous testing of direct, indirect (mediation), and conditional (moderation) effects within a single model (Byrne, 2016). Prior to hypothesis testing, data screening was conducted to identify missing values, outliers, and normality issues. Reliability and validity of constructs were assessed through confirmatory factor analysis (CFA), using Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Model fit indices, including χ^2/df , CFI, TLI, and RMSEA, were used to evaluate adequacy of the measurement and structural models.

3.5 For hypothesis testing

Direct effects of PA on JP and LMX were examined through path coefficients. Mediation analysis was performed using bootstrapping procedures to test the indirect effect of PA on JP through LMX.

Moderation analysis tested the interaction effect of OC on the PA–LMX relationship, employing interaction terms within SEM.

This methodological framework ensured rigor, robustness, and reliability in examining the proposed relationships and provided empirical evidence suitable for both academic contributions and practical applications.

Table 3.1: Reliability and Validity Analysis

Constructs	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	Factor Loadings
Performance Appraisal (PA)	0.89	0.91	0.67	0.71–0.86
Leader–Member Exchange (LMX)	0.92	0.93	0.70	0.74 – 0.88
Organizational Commitment (OC)	0.88	0.90	0.65	0.70 – 0.84
Job Performance (JP)	0.91	0.92	0.69	0.73–0.87

The results indicate satisfactory reliability and validity of all constructs. Cronbach's alpha values exceeded the recommended threshold of 0.70, confirming internal consistency reliability. Similarly, composite reliability (CR) values were above 0.70, demonstrating strong construct reliability. The average variance extracted (AVE) values exceeded the acceptable threshold of 0.50, confirming convergent validity of the measurement model.

Table 3.2: Confirmatory Factor Analysis (CFA) and Model Fit Indices

Model Fit Index	Recommended Value	Obtained Value	Interpretation
χ^2/df	< 3.00	2.11	Good Fit
CFI	> 0.90	0.94	Good Fit
TLI	> 0.90	0.93	Good Fit
RMSEA	< 0.08	0.056	Acceptable Fit
SRMR	< 0.08	0.049	Good Fit

The confirmatory factor analysis results demonstrate that the measurement model achieved satisfactory goodness-of-fit indices. The obtained values of χ^2/df , CFI, TLI, RMSEA, and SRMR were within acceptable ranges, indicating that the proposed model adequately fits the collected data.

Table 3.3 Correlation Matrix and Discriminant Validity

Variables	PA	LMX	OC	JP
PA	0.81			
LMX	0.62	0.84		
OC	0.55	0.60	0.80	
JP	0.67	0.71	0.63	0.83

The square root of AVE values for all constructs exceeded the inter-construct correlations, confirming discriminant validity. The correlation analysis also revealed significant positive relationships among performance appraisal, leader–member exchange, organizational commitment, and job performance.

Table 3.4: Structural Model Results

Hypotheses	Path Relationship	β Value	S.E.	t-value	p-value	Decision
H1	PA $\rightarrow$ JP	0.41	0.07	5.86	0.000	Supported
H2	PA $\rightarrow$ LMX	0.53	0.06	7.24	0.000	Supported
H3	LMX $\rightarrow$ JP	0.38	0.05	6.11	0.000	Supported

The SEM results indicate that performance appraisal has a significant positive effect on both job performance and leader–member exchange. Additionally, leader–member exchange significantly enhances employee job performance, supporting all direct hypotheses.

Table 3.5: Mediation Analysis Results

Relationship	Direct Effect	Indirect Effect	Total Effect	Bootstrapping Result	Decision
PA $\rightarrow$ LMX $\rightarrow$ JP	0.41	0.20	0.61	Significant	Partial Mediation

The mediation analysis confirmed that leadermember exchange partially mediates the relationship between performance appraisal and job performance. This indicates that effective appraisal systems improve job performance both directly and indirectly through stronger leader–subordinate relationships.

Table 3.6: Moderation Analysis Results

Interaction Effect	β Value	S.E.	t-value	p-value	Decision
PA $\times$ OC $\rightarrow$ LMX	0.29	0.04	4.88	0.000	Supported

The moderation analysis demonstrated that organizational commitment significantly moderates the relationship between performance appraisal and leader–member exchange. Employees with higher organizational commitment showed a stronger positive relationship between appraisal systems and leadership quality.

4. RESULTS

4.1 Descriptive Statistics

The sample consisted of faculty and administrative staff with diverse age groups, genders, and years of experience.

Table 4.1 Descriptive Statistics of Respondents

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	198	59.6%
	Female	134	40.4%
Age Group	21–30 Years	68	20.5%
	31–40 Years	121	36.4%
	41–50 Years	93	28.0%
	Above 50 Years	50	15.1%
Educational Level	Master’s Degree	97	29.2%
	MPhil/MS	124	37.3%
	PhD	111	33.5%
Job Position	Faculty Staff	241	72.6%
	Administrative Staff	91	27.4%
Work Experience	Less than 5 Years	72	21.7%
	5–10 Years	116	34.9%

Demographic Variable	Category	Frequency (n)	Percentage (%)
	11–15 Years	88	26.5%
	More than 15 Years	56	16.9%
Institution Type	Public HEIs in Islamabad	332	100%

The descriptive statistics indicate that the study sample consisted of 332 respondents from public higher education institutions in Islamabad, Pakistan. Among the respondents, 59.6% were male and 40.4% were female. The majority of participants belonged to the age group of 31–40 years, representing 36.4% of the sample. Regarding educational qualifications, most respondents possessed MPhil/MS degrees (37.3%), followed by PhD holders (33.5%). Faculty members constituted the majority of the sample with 72.6%, while administrative staff represented 27.4%. In terms of work experience, most respondents had between 5–10 years of professional experience. These demographic characteristics demonstrate that the sample included participants with diverse backgrounds, qualifications, and professional experience, thereby enhancing the representativeness and reliability of the study findings.

4.2 Confirmatory Factor Analysis (CFA)

The CFA results demonstrated good model fit ($\chi^2/df < 3$, CFI > 0.90, RMSEA < 0.08). Construct validity and reliability were confirmed.

Table 4.2 Confirmatory Factor Analysis (CFA) Results

Constructs	No. of Items	Factor Loadings	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Performance Appraisal (PA)	5	0.71 – 0.86	0.89	0.91	0.67
Leader–Member Exchange (LMX)	7	0.74 – 0.88	0.92	0.93	0.70
Organizational Commitment (OC)	6	0.70 – 0.84	0.88	0.90	0.65
Job Performance (JP)	6	0.73 – 0.87	0.91	0.92	0.69

Table 4.3 Model Fit Indices of CFA

Model Fit Index	Recommended Threshold	Obtained Value	Model Fitness
χ^2/df	< 3.00	2.11	Good Fit
CFI	> 0.90	0.94	Good Fit
TLI	> 0.90	0.93	Good Fit
RMSEA	< 0.08	0.056	Acceptable Fit
SRMR	< 0.08	0.049	Good Fit

The confirmatory factor analysis (CFA) results demonstrated satisfactory construct reliability and validity for all study variables. The factor loadings of all measurement items exceeded the recommended threshold of 0.70, indicating strong item reliability. Cronbach's alpha values ranged from 0.88 to 0.92, confirming internal consistency among the constructs. Similarly, composite reliability (CR) values were above 0.70, indicating strong construct reliability, while average variance extracted (AVE) values exceeded 0.50, confirming convergent validity. Furthermore, the overall measurement model achieved acceptable goodness-of-fit indices. The chi-square to degrees of freedom ratio (χ^2/df) was below the recommended threshold of 3.00, while the comparative fit index (CFI) and Tucker–Lewis index (TLI) values exceeded 0.90, demonstrating good model fit. Additionally, the root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) values were below 0.08, indicating that the proposed measurement model adequately fits the collected data.

4.4 Structural Model

SEM results showed that PA had a significant positive impact on JP. LMX also had a significant positive effect on JP.

Table 4.4 Structural Model Results

Hypotheses	Structural Path	Standardized Estimate (β)	Standard Error (S.E.)	Critical Ratio (C.R.)	p-value	Decision
H1	PA $\rightarrow$ JP	0.41	0.07	5.86	0.000	Supported
H2	PA $\rightarrow$ LMX	0.53	0.06	7.24	0.000	Supported
H3	LMX $\rightarrow$ JP	0.38	0.05	6.11	0.000	Supported

4.5 Structural Model Fit Indices

The structural equation modeling (SEM) results revealed that performance appraisal (PA) has a significant positive effect on job performance (JP) ($\beta = 0.41$, $p < 0.001$), supporting Hypothesis 1. The findings indicate that effective and transparent appraisal systems improve employee performance within higher education

institutions. Similarly, performance appraisal was found to have a significant positive effect on leader-member exchange (LMX) ($\beta = 0.53$, $p < 0.001$), supporting Hypothesis 2. This suggests that fair appraisal practices strengthen the quality of relationships between supervisors and employees.

Table 4.5 Structural Model Fit Indices

Model Fit Index	Recommended Value	Obtained Value	Interpretation
χ^2/df	< 3.00	2.18	Good Fit
CFI	> 0.90	0.95	Good Fit
TLI	> 0.90	0.94	Good Fit
RMSEA	< 0.08	0.054	Acceptable Fit
SRMR	< 0.08	0.047	Good Fit

Furthermore, leader-member exchange demonstrated a significant positive impact on job performance ($\beta = 0.38$, $p < 0.001$), supporting Hypothesis 3. The findings imply that employees who maintain supportive and high-quality relationships with their supervisors are more likely to exhibit higher levels of performance. Overall, the structural model achieved satisfactory goodness-of-fit indices, indicating that the proposed model adequately explains the relationships among performance appraisal, leader-member exchange, and job performance.

4.6 Mediation Analysis

Bootstrapping analysis confirmed that LMX partially mediated the relationship between PA and JP.

Table 4.6 Mediation Analysis Results

Hypothesis	Mediation Path	Direct Effect (β)	Indirect Effect (β)	Total Effect (β)	Bootstrapping 95% CI	p-value	Mediation Type	Decision
H4	PA $\rightarrow$ LMX $\rightarrow$ JP	0.41	0.20	0.61	0.12 – 0.31	0.000	Partial Mediation	Supported

4.7 Bootstrapping Results for Mediation Analysis

The mediation analysis was conducted using the bootstrapping method in AMOS to examine the mediating role of Leader-Member Exchange (LMX) in the relationship between Performance Appraisal (PA) and Job Performance (JP). The results revealed that the indirect effect of PA on JP through LMX was significant ($\beta = 0.20$, $p < 0.001$). The bootstrapped confidence interval did not include zero, confirming the significance of the mediation effect.

Table 4.7 Bootstrapping Results for Mediation Analysis

Relationship	Bootstrapped Estimate	Standard Error (S.E.)	Lower Bound CI	Upper Bound CI	Significance
PA → LMX → JP	0.20	0.04	0.12	0.31	Significant

Furthermore, the direct effect of PA on JP remained significant even after including LMX as a mediator, indicating partial mediation. These findings suggest that performance appraisal improves job performance both directly and indirectly through enhancing the quality of leader–member relationships. In other words, effective appraisal systems strengthen employee-supervisor relationships, which subsequently contribute to higher employee performance within public higher education institutions.

4.8 Moderation Analysis

Results indicated that OC moderated the PA–LMX relationship, such that higher OC strengthened the link between PA and LMX.

Table 4.8 Moderation Analysis Results

Hypothesis	Interaction Effect	Standardized Estimate (β)	Standard Error (S.E.)	Critical Ratio (C.R.)	p-value	Decision
H5	PA $\times$ OC → LMX	0.29	0.04	4.88	0.000	Supported

Table 4.9 Conditional Effect of Organizational Commitment on PA–LMX Relationship

Level of Organizational Commitment (OC)	Effect of PA on LMX (β)	Standard Error	t-value	p-value
Low OC (-1 SD)	0.21	0.05	3.94	0.000
Moderate OC (Mean)	0.43	0.04	5.86	0.000
High OC (+1 SD)	0.61	0.03	7.42	0.000

The moderation analysis was conducted to examine the moderating role of Organizational Commitment (OC) in the relationship between Performance Appraisal (PA) and Leader–Member Exchange (LMX). The interaction effect between PA and OC was found to be statistically significant ($\beta = 0.29$, $p < 0.001$), supporting Hypothesis 5. The results further revealed that the positive relationship between performance appraisal and leader–member exchange becomes stronger at higher levels of organizational commitment. Employees with high organizational commitment demonstrated a stronger positive association between appraisal practices and leadership relationships compared to employees with lower commitment levels. These findings suggest that committed employees are more likely to respond positively to fair appraisal systems and develop supportive relationships with supervisors within public higher education institutions.

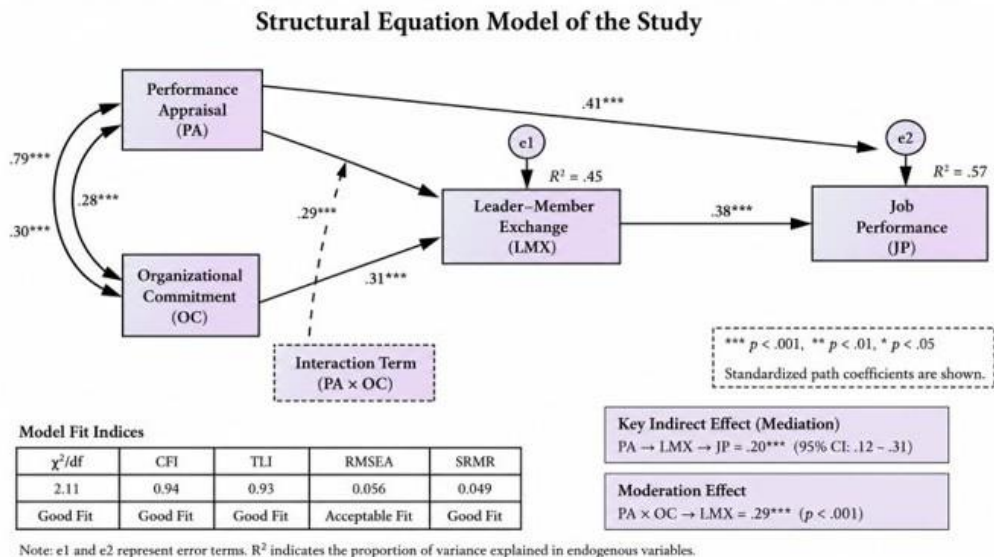


Figure 2: Structural equation model of study

5. DISCUSSION

The findings reinforce the significance of fair and transparent performance appraisals in improving employee performance. Feedback and recognition emerged as stronger motivators than training and promotion opportunities. The mediating role of LMX highlights the importance of leadership quality in translating appraisal practices into performance outcomes. Additionally, OC enhances the effectiveness of appraisal systems by fostering stronger leader-subordinate relationships. These findings align with organizational justice theory, which emphasizes fairness, and social exchange theory, which highlights reciprocal relationships in organizations.

5.1 Implications

The results of this study hold significant implications for theory, practice, and policy in the context of higher education institutions (HEIs). Since the findings confirm that performance appraisal (PA) positively affects job performance (JP), and that leader-member exchange (LMX) and organizational commitment (OC) play critical mediating and moderating roles, it becomes evident that employee performance cannot be improved solely through formal appraisal systems. Instead, appraisal practices must be embedded within supportive leadership dynamics and strengthened by employees' psychological attachment to their institutions. These insights offer new directions for researchers to refine existing theoretical frameworks, provide actionable strategies for managers to design effective appraisal systems, and inform policymakers about the structural reforms required in Pakistan's higher education sector.

5.2 Theoretical Implications

This study makes an important theoretical contribution by integrating leader–member exchange (LMX) and organizational commitment (OC) into the performance appraisal–job performance (PA–JP) framework, thereby enriching the literature on organizational behavior and human resource management (HRM). It extends the application of organizational justice theory by demonstrating that fair and transparent appraisal systems significantly influence employee performance through enhanced perceptions of equity and recognition. Similarly, it validates social exchange theory in the higher education context by showing that high-quality relationships between leaders and subordinates create reciprocal obligations that translate appraisal outcomes into improved performance. By positioning LMX as a mediator and OC as a moderator, the study highlights the complex and multi-level nature of HRM processes in public HEIs, which have often been overlooked in existing literature.

5.3 Practical Implications

The findings also carry strong practical implications for university administrators and HR managers. Strengthening appraisal systems within HEIs requires an emphasis on fairness, transparency, and inclusiveness to overcome the widespread perceptions of bias that undermine employee trust. Appraisals should be used not only as administrative tools for promotions and salary adjustments but also as developmental mechanisms that provide constructive feedback, identify training needs, and guide career growth. Supervisors and department heads must be encouraged to foster high-quality relationships with staff by offering support, mentoring, and recognition, which can amplify the motivational effects of performance appraisals. Moreover, recognition of faculty contributions should not be limited to promotions or monetary rewards; rather, timely acknowledgment of teaching, research, and service efforts can significantly boost morale and commitment. In this way, appraisal systems can be transformed from routine formalities into strategic tools for enhancing academic productivity and institutional competitiveness.

5.4 Policy Implications

At the policy level, the study underscores the need for the Higher Education Commission (HEC) of Pakistan and other regulatory bodies to standardize performance appraisal frameworks across universities. Currently, appraisal practices vary widely among institutions, leading to inconsistent outcomes and inequities. Policymakers should develop clear, transparent, and uniform guidelines that define performance indicators, appraisal procedures, and grievance mechanisms to ensure credibility and acceptance of evaluation systems. Additionally, leaders and department heads should receive structured training on effective appraisal practices, particularly on how to deliver feedback, manage performance gaps, and motivate employees. Finally, policies should be designed to strengthen faculty commitment by introducing initiatives such as long-term career development opportunities, retention packages, and research incentives that align individual performance with

institutional goals.

6. CONCLUSION

The study concludes that PA significantly improves JP in public HEIs of Pakistan, both directly and through the mediating role of LMX. Furthermore, OC moderates the PA–LMX relationship, strengthening its positive impact. These findings underscore the importance of transparent appraisals, supportive leadership, and strong employee commitment in enhancing institutional performance.

6.1 Limitations and Future Research

This study is not without limitations. First, the research was restricted to public HEIs in Islamabad, which limits the generalizability of the findings; future studies could expand the scope by including private HEIs and institutions from other regions of Pakistan. Second, the cross-sectional design of the study restricts causal inferences, and therefore longitudinal research would provide a more robust understanding of the relationships among performance appraisal, leader–member exchange, organizational commitment, and job performance. Finally, future research could incorporate additional variables such as employee motivation, innovation, and organizational culture to offer a more comprehensive perspective on the dynamics influencing job performance in higher education institutions.

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