



NUDGING FACULTY ADVANCEMENT AND REVIEW: NUDGE-BASED PROMOTION AND PERFORMANCE EVALUATION PRACTICES AS PREDICTORS OF JOB PERFORMANCE IN PRIVATE UNIVERSITIES OF KHYBER PAKHTUNKHWA, PAKISTAN

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KEYWORDS	ABSTRACT
Nudge Theory; Nudge-Based HR Practices; Promotion Practices; Performance Evaluation; Faculty Job Performance; Resource-Based View; Private Universities; Khyber Pakhtunkhwa	Behavioural economics has reshaped public policy and consumer settings, yet its use inside human resource management (HRM) in the higher-education sector of developing economies remains thin, and the few available studies tend to treat HR nudges as one undifferentiated bundle. Drawing on Nudge Theory and the Resource-Based View (RBV), this study examines the direct effects of two nudge-based HR practices, promotion and performance evaluation, on the job performance of faculty members in private universities in Khyber Pakhtunkhwa (KP), Pakistan. A cross-sectional survey was completed by 328 faculty members from campuses recognized by the Higher Education Commission, selected through stratified proportionate random sampling, and the data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS. The measurement model showed satisfactory reliability and convergent validity, and discriminant validity between the two focal predictors was supported by both the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio, although the promotion scale overlapped with the recruitment and selection covariate (HTMT = 0.874). The structural results show that nudge-based performance evaluation ($\beta = 0.300, p < .001$) and nudge-based promotion practices ($\beta = 0.146, p = .019$) each exert a significant, positive influence on faculty job performance, with performance evaluation the stronger of the two; the evaluation effect was small-to-medium in magnitude ($f^2 = 0.092$), whereas the promotion effect was statistically significant but practically very small ($f^2 = 0.015$). The wider model, which retained recruitment and selection and training nudges as covariates, explained 56.1% of the variance in job performance. These findings extend Nudge Theory by suggesting that choice architecture placed at recurring review touchpoints may carry more performance value than choice architecture placed at episodic career-advancement decisions, and they extend the RBV by illustrating how continuous performance management sustains academic human capital as a difficult-to-imitate resource. The study contributes new evidence from an under-researched South Asian private higher-education context and offers low-cost, practical guidance for university leaders, HR managers, and regulators.
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Introduction

With the fast pace of technological advancement, such as the growth of AI, and increased competition among institutions, strategic personnel management is now at the heart of institutional competitiveness (Negt & Haunschild, 2025), and the need to steer workers into commitment and productive behavior has been accentuated (Budhwar et al., 2023). In this context, attention has increased on individuals' option appraisal and how others' actions influence it (Hubble, 2023). According to behavioural economics, one solution is a small tweak in how choices are presented, designed to move individuals toward a more desirable alternative without eliminating any other choice or introducing sizeable new economic incentives (Thaler & Sunstein, 2008). The idea behind nudges is that human judgment is boundedly rational and susceptible to systematic bias, which justifies leaders creating decision environments that mitigate that bias

(Grüne-Yanoff & Hertwig, 2016). Nudge-like cues also influence consumer decisions in sustainability contexts, though the effect can vary depending on the reactance they induce (Akbar et al., 2026a). A meta-analytical review by Congiu and Moscati (2022) found that choice-architecture interventions vary widely, and their average effects are small to moderate, even across many domains. The interest has since shifted from the public-health/policy arena to managing people at work (Murayama et al., 2023). Nudge-based HR practices incorporate default options, framing, social proof, and goal setting into day-to-day HR practice, and available evidence shows these approaches can enhance compliance and involvement at little cost (Akbar et al., 2022; Caroço, 2022). These tools appeal to organizations that want to influence behavior without mandates, penalties, or costly monetary rewards.

Nudging-based interventions are associated with demerits, such as Brunetto et al. (2026) point out ethical concerns, limits on solving deeply rooted organizational issues, and the potential for misuse; Pinel et al. (2025) summarize findings from a systematic review that finds nudges must be carefully designed and communicated to be accepted as autonomy-preserving rather than manipulative. The issue for behavioural HRM, therefore, is not whether a nudge should be used, but where in the employment life cycle it makes sense to apply it. This question is significant in the private higher education sector in Khyber Pakhtunkhwa (KP). Universities rely on faculty to achieve their goals, and human resource management is the mechanism through which universities recruit, develop, and retain faculty (Zeeshan & Qazi, 2023). The sector is institutionally pushed to adapt its activities to broader global challenges (Murtaza & Hui, 2021). Amid job insecurity and psychological pressure on faculty, private universities in the province face high turnover, limited resources, and inconsistent quality control (Farooqi et al., 2017). Human resource processes remain traditional and are criticized for being unfair, slow, and lacking transparency (Ahmed & Hassan, 2020; Akbar et al., 2026b).

HR practices have been associated with employee retention (Mehmood et al., 2025) and with the job performance of private university library practitioners in the province (Khan et al., 2025; Palwasha Bibi, 2024; Qurtuba et al., 2023); thus, better-designed HR practices may lead to better job performance. However, they are rarely been applied in behavioral science. Two HR practices occur at the career advancement and review phase in the faculty lifecycle. A study describes how

the promotion process in the province's medical teaching institutes creates difficulties for faculty research and academic work (Khan et al., 2025). Making that path visible and actionable includes clear criteria focused on teaching, pedagogical competence, and research output; progress shown on a progress dashboard or rubric; peers' progress as a social reference point; and promotion linked to pre-set performance targets (Obrenovic et al., 2022). Performance evaluation, by contrast, repeats at each cycle. Using standard templates, a growth mindset framing of feedback, acknowledging strong performances, and reviewing feedback based on goals can shift the meaning of faculty reading and responding to the appraisal, and experimental studies suggest that the design and content of feedback impacts subsequent effort (Afshar Jalili, 2020; Akbar et al., 2025).

Both practices are inexpensive to change and non-coercive, therefore particularly suitable for resource-poor institutions (Musarra, 2019). However, evidence is biased. Systematic reviews show that most empirical research on workplace nudging comes from high-income Western countries (De Paolis et al., 2025). As illustrated in Yusoff (2026) integrative review, HRM can serve as a choice architect that helps eliminate sludge in organizational processes, and the framework explicitly calls for empirical nudge testing in other organizational, industrial, and regional settings. This research found no empirical studies on nudge-based promotion and performance evaluation in the private higher-education market sector of KP. To address this gap, the current study explores the antecedents of faculty job performance in universities with Higher Education Commission (HEC) recognition in KP, Pakistan, through nudge-based promotion and nudge-based performance evaluation.

Research Objectives

The study has the following objectives:

RO1: To examine the impact of nudge-based promotion practices on faculty job performance in private universities in KP.

RO2: To examine the impact of nudge-based performance evaluation practices on faculty job performance in private universities in KP.

Research Questions

RQ1: Do nudge-based promotion practices significantly affect faculty job performance?

RQ2: Do nudge-based performance evaluation practices significantly affect faculty job performance?

Research Hypotheses

H1: Nudge-based promotion practices have a significant positive effect on faculty job performance in private universities.

H2: Nudge-based performance evaluation practices have a significant positive effect on faculty job performance in private universities.

Contributions of the Study

The current research has the following contributions:

This study contributes to the literature on behavioural HRM in three ways. First, it separates two nudge-inspired HR practices that have different frequencies of interactions with the faculty—promotion (episodic) and performance evaluation (recurring cycle)—and tests their relationship with faculty job performance individually, instead of combining HR nudges, as calls for choice-architecture thinking in HRM wish to be tested stage by stage (Yusoff, 2026). Second, it offers an innovative perspective based on empirical findings from private universities listed by the Higher Education Commission (HEC) at KP. In this resource-poor higher-education setting, HR systems are mostly traditional, and behavioural issues have not been discussed in particular (Khan & Jan, 2025). Third, the findings have implications for university authorities and HR managers aiming to improve faculty performance in an economically efficient way: They can either rethink promotion criteria, feedback, and review cycles entirely, or pay attention to how the above-mentioned aspects are worded, framed, and set by default.

Literature Review

Theoretical Underpinning

The study draws on Nudge Theory, and the Resource-Based View (RBV) serves as a complementary lens to explain why nudged HR practices should lead to a sustainable performance gain.

Nudge Theory

Nudge Theory (Thaler & Sunstein, 2008) posits that people do not always make rational decisions: cognitive biases, lack of information, and mental shortcuts influence judgment, and a nudge is any change in choice architecture that affects the decision made by the individual but does not eliminate any choices or materially change the economic incentives (Weijers et al., 2023). The method is based on libertarian paternalism: products lead individuals in a direction likely to make them better off in some ways, but they remain free to choose a direction other than the one the system encourages (Grüne-Yanoff & Hertwig, 2016). However, many critics do not clearly see where the line between legitimate persuasion and manipulation lies (Kosters & Van der Heijden, 2015). Among the four most common levers, organizations frequently employ default options, whereby the tendency to choose a pre-selected option influences the outcome; framing, which refers to the effect of the presentation of information; social proof, which describes the impact of peers' behavior; and goal setting, which involves anchoring efforts to explicit goals

(Akbar et al., 2017; Caroco, 2022; Grunewald et al., 2017). In HRM, these levers involve changes to the choice architecture of HR processes that increase voluntary compliance, engagement, and productivity without mandates (Soman, 2021). Nudged-based promotion refers to visible criteria grounded in teaching and pedagogical competency and research, plus dashboards or rubrics that show student progress, peers' progress, and present targets. It suggests standard templates as

defaults, positive and developmental feedback language, recognition of high-performing individuals, and feedback cycles centred on goals (O'Meara et al., 2022). Success depends on how well people accept them. Transparent nudges are more likely to be seen as autonomy-preserving than manipulative (Pinel et al., 2025), and a meta-analysis of 23 publications found that transparent nudges are as effective as covert nudges (Bruns et al., 2025).

Resource-Based View

According to the Resource-Based View (Barney, 1991), resources that are valuable, rare, and difficult to imitate lead to sustainable competitive advantage, and human capital is one of the most important of these resources (Gerhart & Feng, 2021; Zeb et al., 2016). HR practices matter because they turn individual knowledge and skills into unique organisational capabilities, and performance-related HR systems can drive efficiency and innovation (Ployhart, 2021). HR practices can be defined as the policies and activities that organisations use to acquire, develop, motivate, and retain their employees to ensure that human capital is aligned with the objectives of the organisation (Usman et al., 2026), and a systematic review shows a relationship between well-designed HR practices and employee well-being and performance (Diep & Horváthová, 2026). In addition, bundles of mutually reinforcing practices are linked to better organizational outcomes (Pattanayak, 2025). An RBV is the theory behind the importance of advancement and appraisal for faculty: faculty are valuable and scarce; they cannot be copied over a short period of time in the institution, and the way faculty are rewarded, reviewed, and developed in the institution is significant in determining how much potential is realized. Thus, Nudge Theory and RBV work on different levels. The choice architecture embedded in promotion and evaluation procedures changes how faculty view their careers and the feedback they receive (Neelam Akbar, 2024); the RBV explains why it is strategically important that faculty exhibit better behaviour if they are a scarce resource. These two views reinforce the hope that nudge-based promotion and nudge-based performance evaluation can enhance job performance.

The outcome studied here is faculty performance, which relates to target achievement, workload management, recognition by fellow faculty members and supervisors, efforts to enhance teaching and research quality, and performance relative to institutional expectations (Teclémichael Tessema & Soeters, 2006). The answer lies in empirical research on nudged HRM, which is still relatively young. Goal-setting nudges have measurable impacts in German companies (Grunewald et al., 2017); framing and social-proof nudges increase acceptance of HR policies (Caroço, 2022); and nudge-based HRM is linked to higher job satisfaction and lower burnout among health workers (Frengidou, 2024).

Nudged-Based Promotion Practices and Job Performance

Promotion practices determine how faculty advance to higher levels, and they form an integral part of HRM-performance models (Teclémichael Tessema & Soeters, 2006). Nudge-based promotion is based on behavioural design and takes that route: promotion criteria are clearly defined with respect to teaching effectiveness, pedagogical competence, and research output; progress is monitored on a digital dashboard or rubric; information on advances made by peers provides a

social benchmark; and promotion is tied to pre-established performance goals (O'Meara et al., 2022). The expected mechanism is very simple. If criteria are salient and progress is visible, faculty can see what effort is required and what will be rewarded, which helps them focus on teaching and research behaviours that lead to advancement and, thus, higher performance. Several lines of evidence support this logic. In a study of 305 employee-supervisor pairs, Webster and Beehr (2013) discovered that perceptions of promotion criteria mediated the relationship between perceptions of promotion and in-role performance, extra-role performance, and organizational commitment, which indicates that the relationship between promotion criteria and performance is mediated by perceptions of promotion and not just by a mechanical incentive. Akanmu et al. (2025) studied job promotion, listed among performance-appraisal practices, among employees in Malaysian HEIs. They found that job promotion was significantly correlated with employee performance but not with employee engagement. Career development has also been found to better predict work performance (Hosen et al., 2024), and beliefs about barriers to advancement (glass ceiling) have been studied in the context of female employees' job performance in education directorates of KP (N. Akbar et al., 2023). The regional need is also recorded. The promotion system has been reported to create problems for faculty research and academic work in the province's medical teaching institutes (Khan et al., 2025), and faculty and research problems were reported as one of the remaining strengths of higher education in Pakistan (Shah, 2025). "Nudges" can make these criteria more understandable and actionable. The literature on field experiments and diversity studies has examined nudges that increase employees' participation in organizational activities (Pelly & Doyle, 2025), and nudges makes organizational processes fairer and more inclusive (S. Akbar et al., 2023; Cervantez & Milkman, 2024). Two cautions apply. First, promotion is an episodic event, and cues tied to promotion may not strongly affect day-to-day performance. Second, nudges from consumer and public-policy contexts can manifest differently in hierarchical organizations (Ahmad et al., 2024; Kubera, 2023; Marwat et al., 2023), though the effect of openly communicated, criteria-based nudges does not seem to fade when the nudging goal is made explicit (Bruns et al., 2025; Shah et al., 2023). Based on the above discussion, the following hypothesis is postulated:

H1: Nudge-based promotion practices have a significant positive effect on faculty job performance in private universities.

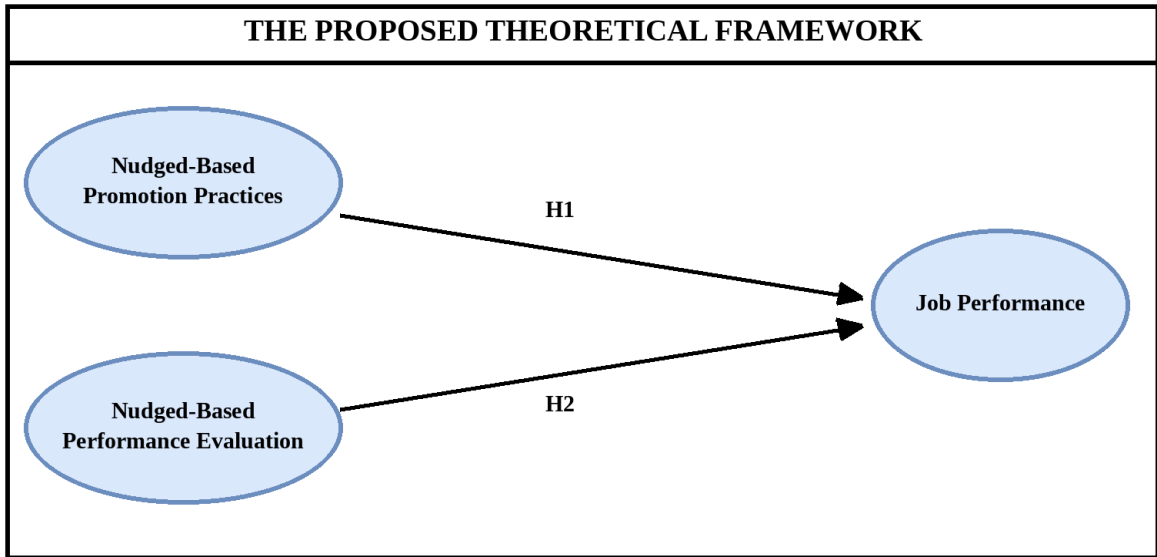
Nudge-Based Performance Evaluation and Job Performance

The periodic, formal review of employees' performance against agreed standards is called performance evaluation, which provides feedback, recognition, and goal clarity essential for future performance (Afshari, 2020). Performance evaluation, which embeds behavioural design into that cycle, relies on a set of standard templates and rubrics as defaults to ensure evaluator consistency, a constructive framing of feedback that focuses on improving performance, recognition for strong performance, a clear link between the cycle and clear goals, and a rating system that makes it clear what is expected (Grunewald et al., 2017; Siddiq et al., 2024). Several studies support a relationship between evaluation design and performance. Al-Jedaia and Mehrez (2020) explored the impact of performance appraisal on job performance in the governmental sector, mediated by employee

motivation. In contrast, Akanmu et al. (2025) found significant positive relationships between performance feedback, performance recognition, and employee performance in higher education institutions in Malaysia. Research indicates that how feedback is delivered matters. In a field experiment at the distribution centre of a Fortune 500 company, Awaysheh et al. (2023) demonstrated that workers increase or decrease their work effort based on the feedback that is given that relates to the marginal benefit of effort, and that this effect is strongest at the lower end of the productivity spectrum. In a study conducted by House et al. (2022) nearly 700 customer-service representatives participated in a randomized trial, which found that repeated individual performance feedback led to an additional 25% increase in the targeted behaviour compared with aggregating otherwise equivalent encouragements and reminders that did not include peer benchmarks. Previous research in the field of appraisals Belle and Cantarelli (2021) that used descriptive cues for social norms to persuade public employees in healthcare organizations to engage in appraisals is consistent with the use of peer-comparison cues in goal-setting nudges. Other reasons suggest an impact at the higher education level. The formal evaluation occurs at one of the few times when expectations of faculty work are made explicit, and it is difficult to monitor faculty work directly. Interventions and nudges (such as reminders and information) have been shown to improve outcomes in educational contexts (Damgaard & Nielsen, 2017), and evaluation designs communicate clear institutional commitment by articulating competencies and goals. This effect will likely be small to medium, typical of nudges in general. From the above discussion, it is hypothesized that:

H2: Nudge-based performance evaluation practices have a significant positive effect on faculty job performance in private universities.

Figure 1: The proposed Theoretical Framework



Methodology

Research Design

This study adopts the Saunders et al. (2011) research onion model and uses a positivist, deductive, quantitative design; it moves from theory (Nudge Theory and the Resource-Based View) to specific hypotheses, which are then tested empirically. The hypotheses examine associations at a single time point, rather than change over time, and were collected through a structured, self-administered survey with a cross-sectional time horizon. The population includes faculty members of HEC-recognized private universities in Khyber Pakhtunkhwa (KP), Pakistan. The study included fourteen universities, such as Sarhad University of Science and Information Technology, IQRA National University (Peshawar campus and Swat campus), CECOS University, Abasyn University, Gandhara University, and Qurtaba University (Peshawar campus and Dera Ismail Khan campus). Together, they have approximately 2250 faculty members. Krejcie and Morgan (1970) formula was applied to determine the sample size, which calls for a sample size of 328 for a population of 2,250, with a 5% margin of error and a 95% confidence level. Stratified proportionate random sampling ensured each campus was represented in proportion to the number of faculty members, and within each stratum, respondents were randomly selected from the pool. To pilot-test the instrument and administration procedures, a sample of 66 faculty members (20% of the main sample) was used. A total of 328 questionnaires were screened, and usable responses were obtained from 350 questionnaires, for a usable response rate of 94%.

The data were collected using a structured, self-administered questionnaire that included the following scales and a demographic section. The questionnaire was online and also distributed in print copies for faculty members. All questionnaires included a cover letter describing the study, the voluntary nature of participation, and the confidentiality of responses. Participants rated the substantive items on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The three constructs of focus were nudge-based promotion practices (five items), nudge-based performance evaluation (five items), and faculty job performance (five items) adapted from (Teclemichael Tessema & Soeters, 2006). Representative items include: "My progress towards promotion is monitored and reported on a digital dashboard or rubric" (promotion); "I have clear goals for job performance (e.g., teaching and research) that I am expected to meet at each cycle" (performance evaluation); and "I meet teaching and research targets set by my institution consistently" (job performance). The items were subject to face and content validity by experts in human resource management. Cronbach's alpha for the pilot was 0.934 (promotion), 0.935 (performance evaluation), and 0.887 (job performance), above the recommended 0.70 (Nunnally & Bernstein, 1994).

Responses were screened in SPSS (version 23) for missing values, unengaged (straight-lined) responses, and univariate and multivariate outliers, and item distributions were analysed using skewness and kurtosis (Tabachnick & Fidell, 2019). SPSS was also employed to determine frequencies, descriptive statistics, and Cronbach's alpha. The measurement model was tested in SmartPLS for indicator reliability, internal consistency, and convergent validity (indicator loadings, composite reliability, and average variance extracted), according to Hair et al. (2019) and

Fornell and Larcker (1981), and for discriminant validity with the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio of correlations (Henseler et al., 2015). The collinearity among the predictors was examined using variance inflation factors (VIFs) with the conventional cut-off of 5.0 (Hair et al., 2019), and the stricter rule of 3.3 suggested by (Kock, 2015). The structural model was estimated using PLS-SEM with 5,000 bootstrap subsamples, and nudge-based promotion and nudge-based performance evaluation were used as predictors of faculty job performance. Given the directional nature of the hypotheses, we used a one-tailed test at the 0.05 level. We reported 90% bootstrap confidence intervals, which correspond to this test, along with f^2 effect sizes (Cohen, 2013), R^2 , and the standardized root mean square residual (SRMR).

Results

Respondents' Demographic Characteristics

The final sample included 328 faculty. Men accounted for 179 respondents (54.6%) and women for 149 (45.4%). The largest age group was 32–38 years (133 respondents, 40.5%), followed by 25–31 years (96, 29.3%) and 39–45 years (82, 25.0%), while only 17 respondents (5.2%) were aged 46–52; the sample therefore leaned toward early- and mid-career faculty. Permanent lecturers (118, 36.0%) were the largest group of respondents, followed by visiting lecturers (71, 21.6%), associate professors (53, 16.2%), professors (44, 13.4%), and assistant professors (42, 12.8%). Monthly income was spread across the upper bands, with PKR 180,000–249,999 the most common (86 respondents, 26.2%), followed by PKR 130,000–179,999 (83, 25.3%), PKR 250,000 and above (68, 20.7%), and PKR 80,000–129,999 (66, 20.1%); only 25 respondents (7.6%) earned less than PKR 80,000. Of the sample, 154 (47.0%) had completed their PhD, 91 (27.7%) held an MS/MPhil, 48 (14.6%) were in PhD studies, 23 (7.0%) had a professional certificate as well as a PhD, and 12 (3.7%) held post-doctoral degrees. The gender balance is broadly equal, and the sample is well distributed across career stage, rank, income, and qualification level, supporting the results. Table 1 provides complete demographic information.

Table 1: Respondents' Demographic Profile

Variable	Frequency	Percent (%)
Gender		
Male	179	54.6
Female	149	45.4
Total	328	100.0
Age		
25–31 years	96	29.3
32–38 years	133	40.5
39–45 years	82	25.0
46–52 years	17	5.2
Total	328	100.0
Position		
Permanent Lecturer	118	36.0

Visiting Lecturer	71	21.6
Assistant Professor	42	12.8
Associate Professor	53	16.2
Professor	44	13.4
Total	328	100.0
Monthly Income (PKR)		
Less than 80,000	25	7.6
80,000–129,999	66	20.1
130,000–179,999	83	25.3
180,000–249,999	86	26.2
250,000 and above	68	20.7
Total	328	100.0
Education		
MS/MPhil	91	27.7
PhD – in progress/coursework	48	14.6
PhD – completed	154	47.0
Post-doctorate	12	3.7
Certification/professional along with PhD	23	7.0
Total	328	100.0

Reliability Analysis

All 3 focal constructs showed good internal consistency. Cronbach's alpha scores for each scale ranged from 0.871 (Faculty Job Performance) to 0.910 (Nudge-Based Performance Evaluation) and exceeded the recommended 0.70 (Nunnally & Bernstein, 1994). Both covariate scales correlated well (recruitment and selection, .899; training practices, .916). Table 2 summarizes the reliability statistics.

Table 2: Reliability Statistics

Construct	No. of Items	Cronbach's α	Assessment
Nudge-Based Promotion Practices (PP)	5	0.898	Good
Nudge-Based Performance Evaluation (PE)	5	0.910	Good
Faculty Job Performance (JP)	5	0.871	Good

Descriptive Statistics

Table 3 presents descriptive data for the three constructs. Overall, mean scores were high on the five-point scale, around “agree,” indicating that, across the board, faculty agreed that nudge-based features were present in their university's promotion and evaluation processes and that these features worked well. Faculty job performance was very close to the mean for nudge-based

promotion practices ($M = 4.065$, $SD = 0.711$), and nudge-based performance evaluation had the lowest, yet still positive, mean ($M = 3.968$, $SD = 0.718$). The standard deviations for all items were below 0.80, which indicates a fairly consistent response pattern. However, the distributions of the variables were negatively skewed (from -1.547 to -1.702) and more peaked than normal (from 2.902 to 3.496), but this was not severe enough to affect the estimation of the structural model, as the values were within the commonly used limits of ± 3 for skewness and ± 10 for kurtosis, and PLS-SEM does not require multivariate normality (Hair et al., 2019).

Table 3: Descriptive Statistics

Construct	N	Mean	SD	Skewness	Kurtosis
Nudge-Based Promotion (PP)	328	4.065	0.711	-1.639	3.038
Nudge-Based Evaluation (PE)	328	3.968	0.718	-1.547	2.902
Faculty Job Performance (JP)	328	4.048	0.704	-1.702	3.496

Multicollinearity Assessment

Before estimating the structural model, we checked collinearity at the indicator level (outer VIF) and among the job performance predictors (inner VIF). The outer VIFs were within the conservative range of 5.0 for all the focal indicators (Hair et al., 2019), ranging from 1.356 to 3.097. Table 4 presents the inner VIF and tolerance for promotion practices and performance evaluation: the inner VIF is 3.185 for promotion practices and 2.229 for performance evaluation. Neither is below the more stringent value of 3.3 recommended by Kock (2015), or the limit value of 5.0, meaning that the collinearity problem is not present for the two focal paths. Inner VIF values were higher for the covariates (recruitment and selection, 3.934; training, 3.468), indicating overlapping variance for these practices. Because they were entered as covariates, the two focal coefficients represent the effect of each practice net of the shared variance.

Table 4: Multicollinearity Assessment — VIF and Tolerance

Predictor Path	VIF	Tolerance ($1/VIF$)
Nudge-Based Promotion → Job Performance	3.185	0.314
Nudge-Based Evaluation → Job Performance	2.229	0.449

Measurement Model: Reliability and Convergent Validity

The loadings for the two predictor constructs were all above the minimum acceptable value of 0.70 (Hair et al., 2019), ranging from 0.802 to 0.876 for promotion practices and 0.823 to 0.870 for performance evaluation. Four of the five (JP1-4) items in the job performance indicator group loaded between 0.841 and 0.867, while one (JP5) loaded at 0.638. Because this item's loading is between 0.40 and 0.70 and the composite reliability and average variance extracted exceeded the recommended values (Hair et al., 2019), it was retained. Composite reliability (ρ_c) ranged from 0.908 (job performance) to 0.933 (performance evaluation), which did not exceed 0.95, indicating item redundancy. The average variance extracted (AVE) ranged from 0.666 (job performance) to

0.736 (performance evaluation), exceeding the 0.50 level recommended by Fornell and Larcker (1981). The results indicated that the indicators were reliable and convergent, measuring the intended constructs, and that the study could then proceed to discriminant-validity assessment and structural estimation (Table 5).

Table 5: Measurement Model — Reliability and Convergent Validity

Construct		Loading Range	Cronbach's α	CR (ρ_a / ρ_c)	AVE	Items
Nudge-Based Promotion (PP)	Promotion	0.802–0.876	0.898	0.900 / 0.925	0.711	5
Nudge-Based Evaluation (PE)	Evaluation	0.823–0.870	0.910	0.913 / 0.933	0.736	5
Faculty Job Performance (JP)	Job Performance	0.638–0.867	0.871	0.885 / 0.908	0.666	5

Discriminant Validity

We used the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio of correlations (HTMT) (Henseler et al., 2015) to assess discriminant validity. The square root of each AVE for promotion practices (0.843), performance evaluation (0.858), and job performance (0.816) was higher than the correlation with the other constructs. The correlation between the two predictors was 0.693, and both predictors had moderate correlation with job performance (0.658 and 0.669, respectively). On both criteria, the HTMT values among the focal constructs were below the conservative 0.85 threshold, indicating discriminant validity. Only the covariate "performance evaluation" differed significantly from the covariate "recruitment and selection" (HTMT = 0.778), and "recruitment and selection" also differed significantly from "training" (HTMT = 0.724). However, there was cross-over with recruitment and selection (HTMT = 0.874, above the threshold) and a very similar relationship with training (0.843). This is partly because all four scales measure HRM practices using the same parent instrument (Teclémichael Tessema & Soeters, 2006) as shown in (Table 6).

Table 6: Discriminant Validity — Fornell-Larcker Criterion and HTMT

Construct	PP	PE	JP
PP	0.843	(0.767)	(0.742)
PE	0.693	0.858	(0.742)
JP	0.658	0.669	0.816

Note. Diagonal values (bold) are the square root of the AVE for each construct. Values below the diagonal are Fornell-Larcker inter-construct correlations. Values in parentheses above the diagonal are HTMT ratios; all HTMT ratios among the focal constructs are below the conservative 0.85 threshold. PP = Nudge-Based Promotion Practices; PE = Nudge-Based Performance Evaluation; JP = Faculty Job Performance. Recruitment and selection and training practices were retained in the model as covariates; the HTMT ratio between PP and recruitment and selection was 0.874.

Structural Model: Hypothesis Testing

We examined the hypothesized direct relationships between nudge-based promotion practices and nudge-based performance evaluation and faculty job performance using PLS-SEM with 5000 bootstrap subsamples, a 0.05 one-tailed test, and a 90% bootstrap confidence interval, as suggested by the direction of the hypothesis tests. Both paths were positive and significant, as shown in Table 7. Nudge-based performance evaluation was the stronger predictor ($\beta = 0.300$, $t = 4.975$, $p < .001$, 90% CI [0.196, 0.394], $f^2 = 0.092$), while nudge-based promotion practices recorded a smaller yet significant effect ($\beta = 0.146$, $t = 2.067$, $p = .019$, 90% CI [0.029, 0.262], $f^2 = 0.015$). Both hypotheses (H1 and H2) were accepted because neither confidence interval included 0. The effect of performance evaluation is between the small (0.02) and medium (0.15) benchmarks, while the effect of promotion practices ($f^2 = 0.015$) is just below the small benchmark and is practically negligible. The evaluation coefficient is approximately twice the promotion coefficient. Still, the interval of difference between the two coefficients does not strictly rule out the possibility that the two confidence intervals overlap (0.196 to 0.262), and the difference between the two coefficients was not formally tested.

Table 7: Structural Model — Hypothesis Testing

Hyp.	Path	β	t-value	p-value	90% CI	f^2	Decision
H1	Nudge-Based Promotion → Job Performance	0.146	2.067	0.019	[0.029, 0.262]	0.015	Supported
H2	Nudge-Based Evaluation → Job Performance	0.300	4.975	<0.001	[0.196, 0.394]	0.092	Supported

Note. One-tailed test at $\alpha = .05$ with 5,000 bootstrap subsamples; recruitment and selection and training practices were included as covariates. PP = Nudge-Based Promotion Practices; PE = Nudge-Based Performance Evaluation; JP = Faculty Job Performance.

Coefficient of Determination (R^2)

The only endogenous measure was faculty job performance. The estimated model included the two nudge-based practices and covariates for recruitment and selection, and training, with an R^2 of 0.561 (adjusted $R^2 = 0.556$). The model explains a moderate to substantial amount of variance (Hair et al., 2019) in faculty job performance, that is, 0.50 or more. This value applies to the full model and is not solely due to promotion and performance evaluation. The overall model fit was acceptable (SRMR = 0.046, below the cut-off of 0.08, as noted by Henseler and colleagues, 2015) (Table 8).

Table 8: Coefficient of Determination (R^2) for Faculty Job Performance

Endogenous Construct	R^2	Adjusted R^2	Explanatory Power
Job Performance (JP) — full model	0.561	0.556	Moderate-to-substantial

Discussion

The current research endeavoured to check whether two HR nudged-based practices, namely nudged-based promotion practices and performance evaluation, can predict the job performance of faculty members in private universities in KP using nudge theory. The study accepted both hypotheses: The direct effect on faculty job performance was positive and significant in both cases, and nudge-based performance evaluation was more strongly related to the outcome than nudge-based promotion. This support for H1 ($\beta = 0.146$, $p = .019$) aligns with Nudge Theory's main argument: clearly communicated standards, transparent benchmarks, social norms, and pre-set goals can guide faculty toward desired conduct without taking away their personal choices (Thaler & Sunstein, 2008). This aligns with Akanmu et al. (2025), who found that job promotion was significantly associated with employees' performance in academic institutions in Malaysia, and with Hosen et al. (2024), who found that career development predicted employees' work performance. However, this effect is the smallest in the model and below the small-effect threshold ($f^2 = 0.015$). Several factors may explain this. According to Webster and Beehr (2013), the perceived promotion criteria have an indirect effect on performance via two mediators: promotion justice and organizational commitment, and the direct effect path may underestimate the role of the promotion nudges. Moreover, when the promotion criteria are seen as a challenge to faculty, the criteria themselves could be improved in framing without overcoming the structural challenges (Khan et al., 2025; Yousafzai et al., 2026). Together, these factors suggest a relatively small effect of promotion nudges on performance and indicate that promotion nudges can complement good promotion policy.

The positive and significant impact of nudge-based performance evaluation ($\beta = 0.300$, $p < .001$) aligns with Al-Jedaia and Mehrez (2020), who found that performance evaluation was significantly related to job performance in the governmental sector, and with Akanmu et al. (2025), who discovered significant relationships between performance appraisal, performance feedback, performance recognition and job performance in the Higher Education sector. This is also consistent with experimental findings that the content and delivery of feedback affect subsequent effort (Awaysheh et al., 2023). Furthermore, repeated performance feedback increases targeted behaviour compared with reminders alone (House et al., 2022). In addition, one possible explanation for evaluation being the most prevalent predictor was task familiarity. While recruitment and promotion are rare points in the career cycle, evaluation is an ongoing cycle of appraisal, feedback, and goal setting, which presents default-framed, criteria-based cues to faculty again and again. This aligns with Nudge Theory's focus on placing cues directly in the line of sight of those being acted upon, and with RBV's view that ongoing performance management renews organizational capability rather than serving as a single human-capital investment (Barney, 1991). The finding also aligns with other evidence that nudge effects are generally small to medium (Mertens et al., 2022), as the evaluation effect ($f^2 = 0.092$) falls between the small and medium benchmarks. Two qualifications apply. The evaluation items measure goal clarity, constructive feedback, and recognition, which are aspects of good appraisal in general and of nudge-consistent appraisal, so it is not possible to distinguish the contribution of nudge design from the contribution of appraisal quality in this study. And, with the confidence intervals of the 2 paths

overlapping, superiority of evaluation over promotion is interpreted as suggestive. Overall, the pattern of results: one relatively small positive effect, plus an intermediate amount of variance explained in the complete model, indicates that nudge-based HR practices are complementary factors of faculty performance, not major factors. The relatively higher role of evaluation suggests that including choice architecture in regular review contexts may be more fruitful than including it in career-advancement decisions that occur only once.

Theoretical Contributions

This study makes three important theoretical contributions: First, Nudge Theory was introduced into two phases of the HR lifecycle that have not been the focus of attention in higher education: promotion and performance assessment, both of which had a positive relationship with faculty job performance, even though the faculty member's choice was unaltered. Second, it extends the RBV perspective on resources by providing a behavioural basis for the ongoing practice of performance evaluation to sustain and activate academic staff as valuable, scarce human resources, because performance evaluation seems more influential for that objective than a more sporadic practice of promotion. Third, the tests of both practices in isolation and the reporting of the contrasting magnitudes of these tests provide a more nuanced account of HR nudging than studies that treat nudges as an undifferentiated package, and the study suggests, for future study, that the leverage of nudges embedded in the temporal structure of an HR touchpoint is conditioned. It also provides evidence from a developing-world economy where empirical testing of the choice-architect perspective on HRM has been called for (Dr. Gul et al., 2026).

Practical Contributions

The findings have several implications for HR practices in private universities in KP. Because nudge-based performance evaluation is most strongly associated with job performance, universities should focus on designing their appraisal cycle. Feedback can be presented positively and growth-oriented; criteria and goals can be clearly communicated before each cycle; standard templates and rubrics can be used as defaults to minimize evaluator inconsistencies, and good performance can be acknowledged; a developmental follow-up conversation can be scheduled automatically after each evaluation if the faculty member does not decline (Afshari et al., 2020). Nudge-based promotion has less impact, so performance dashboards and framing alone cannot close performance gaps. They continue to be low cost: They can be published in terms of teaching, pedagogical competence, and research output; research products can be monitored using a simple dashboard or rubric; and the criteria themselves should be reviewed for fairness, as otherwise unclear or burdensome criteria will negate any incentive built on top of them (O'Meara et al., 2022). In the context of resource limitations, as outlined by Farooqi et al. (2017), both practices should be considered complementary, affordable investments rather than the single most important lever. The findings also help the sector develop guidance for the Higher Education Commission and provincial regulators on HR practices in private universities without requiring massive capital investments. Finally, establishments should inform faculty when and why they use choice architecture, and any nudging should be transparent to be accepted.

Limitations and Future Directions

The study has many limitations which indicate the need for additional research. The cross-sectional design is not ideal for causal inference or establishing temporal order, and faculty who are already performing well are more likely to notice and value the nudge elements of promotion and evaluation. Because all variables were measured in one survey, common-method variance cannot be ruled out, and future studies should implement procedural and statistical controls and use self-rated performance assessment along with supervisor ratings, output, or administrative records to assess validity. The effects reported here do not reflect a comparison of nudged and non-nudged designs, but rather of perceived nudge-consistent features of an overview of the promotion portal or appraisal template, so it is not possible to distinguish the effects of nudging from the effect of good HR practice in general; a field experiment that separated the choice architecture of a promotion portal or appraisal template would have done so directly. A limited number of private university campuses (only 14) were sampled, and it is unclear whether the results can be generalized to public universities, other provinces, or other contexts in South Asia. Lastly, the model considered only direct effects. Future studies should examine mediators like promotional justice, organizational commitment, and motivation (Al-Jedaia & Mehrez, 2020), look at moderators like academic rank and contract type, and adopt mixed-methods designs to demonstrate which nudge mechanism (default, framing, social-proof cues, goal setting) faculty are aware of and react to.

Conclusions

The current study used an HR practices approach inspired by nudge theory and the RBV, as the two nudges examined were promotion and performance appraisal among 328 faculty members in recognized private universities under HEC in Khyber Pakhtunkhwa, Pakistan. The direct effects were supported: nudge-based performance evaluation ($\beta = 0.300$) and nudge-based promotion practices ($\beta = 0.146$) had a significant, positive impact on faculty job performance, with the former stronger and the latter very small in magnitude. The results indicate that recursive choice architecture, in which expectations, feedback, and recognition are made salient in the regular forum of the faculty career (as opposed to episodic advancement decisions), leads to greater productivity, and that this effect arises because of the scarcity and hard-to-imitate nature of academic human capital. Combined with the accompanying study on recruitment, selection, and training in the same project, the study offers a low-cost, evidence-based approach for university managers and regulators to enhance faculty performance. It can also serve as a stepping stone to strengthen and further develop nudge-based HRM research beyond the KP private higher-education subsector.

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