

Human Resource Management Practices and Employee Engagement Levels At Nyeras Edutech & Innovations Pvt. Ltd.

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Abstract :

Employee engagement has emerged as a central organisational capability that directly influences workforce productivity, retention, and sustainable competitive advantage. This study examines the Human Resource Management (HRM) practices and their impact on employee engagement levels at Nyeras Edutech & Innovations Pvt. Ltd., a dynamic player in the educational technology and innovation sector. The study explores dimensions including training and development, performance appraisal, compensation and benefits, work-life balance, leadership quality, and communication effectiveness. Employing a descriptive cross-sectional research design, primary data were collected from 120 respondents through a structured questionnaire administered via convenience sampling. Statistical analyses—comprising simple percentage analysis, Chi-square tests, Pearson correlation, and one-way Analysis of Variance (ANOVA)—were applied to examine relationships among demographic variables and employee engagement outcomes. Findings reveal that 62.5% of respondents express overall positive satisfaction with HRM practices; however, 58.3% indicate that performance appraisal processes require improvement, representing a significant systemic concern. A very strong positive correlation ($r = .893, p < .001$) was found between HRM practice effectiveness and employee engagement. Chi-square analysis established a statistically significant association between educational qualification and engagement levels ($\chi^2 = 312.4, df = 16, p < .001$), while ANOVA confirmed systematic differences in engagement scores across age groups ($F = 164.712, p < .001$). The study contributes theoretically by integrating HRM-centric and engagement-oriented perspectives, and practically by offering actionable recommendations for appraisal system reform, training investment, and analytics-driven engagement improvement. These findings have broad implications for HR practitioners, organisational development specialists, and institutional decision-makers seeking to transform HRM into a strategic engagement driver.

Keywords: HRM practices, employee engagement, performance appraisal, training and development, worklife balance, educational technology, India

Introduction

In the contemporary knowledge-driven economy, employee engagement has transitioned from a peripheral HR concern to a front-line strategic imperative. Organisations that effectively engage their workforce consistently demonstrate higher productivity, reduced attrition, superior customer satisfaction, and enhanced innovation capability (Bakker & Leiter, 2022). The educational technology sector, characterised by rapid product cycles, intense talent competition, and a strong reliance on knowledge workers, presents a

particularly compelling context within which to examine the mechanisms and outcomes of HRM practices on engagement.

Nyeras Edutech & Innovations Pvt. Ltd. represents a growing cohort of Indian EdTech enterprises that must simultaneously attract, develop, and retain specialised human capital while managing the operational pressures inherent in a scale-up environment. In such organisations, HRM practices—encompassing recruitment, training and development, performance management, compensation, and employee relations—serve not merely as administrative functions but as primary

drivers of the psychological contract that sustains employee commitment and discretionary effort.

The academic literature has progressively refined its conception of employee engagement beyond simple job satisfaction. Scholars now argue for a multi-dimensional construct encompassing cognitive absorption, emotional dedication, and behavioural vigour, all of which are significantly shaped by the quality and consistency of organisational HRM practices (Schaufeli & Bakker, 2023; Saks, 2022). Despite this conceptual richness, empirical research conducted within the Indian EdTech sector remains comparatively sparse, with extant studies concentrating disproportionately on manufacturing or IT-sector organisations.

Within this context, the present study investigates HRM practices across six interrelated dimensions: training and development effectiveness, performance appraisal quality, compensation and benefits adequacy, work-life balance facilitation, leadership quality, and internal communication effectiveness. Three statistical techniques—

Chi-square association testing, Pearson correlation, and one-way ANOVA—are deployed to examine the influence of respondents' demographic characteristics on their perceptions of HRM practice quality and resultant engagement levels. The study thereby contributes both theoretically and practically to the HRM and engagement literature.

1.1 Problem Statement

Despite increased organisational awareness of the strategic value of human capital, a critical gap persists between HRM policy intent and practice reality at many Indian EdTech enterprises. Organisations in this sector frequently prioritise product innovation and customer acquisition over systematic investment in employee engagement infrastructure, resulting in talent attrition rates that exceed sector benchmarks (Gupta & Sharma, 2023). Specific structural deficiencies include: absence of structured performance appraisal frameworks; limited training and development budgets; inadequate internal communication channels; and misalignment between compensation structures and employee expectations.

At Nyeras Edutech & Innovations Pvt. Ltd., rapid organisational growth has intensified these challenges. The absence of a comprehensive HRM framework calibrated to the engagement needs of knowledge workers risks undermining the very human capital upon which the organisation's competitive position depends. This study seeks to diagnose these challenges empirically by examining employee perceptions of current HRM practices and their reported engagement levels, thereby generating evidence-based insights for practitioner intervention.

1.2 Research Objectives

The study pursues the following objectives: (i) to analyse the effectiveness of HRM practices in terms of training, appraisal, compensation, and employee satisfaction; (ii) to examine the role of leadership quality in fostering employee engagement at Nyeras Edutech; (iii) to evaluate the impact of work-life balance initiatives on employee engagement levels; (iv) to assess the influence of internal communication effectiveness on engagement outcomes; (v) to analyse the extent of performance appraisal satisfaction and its relationship with engagement; (vi) to examine the relationship between demographic factors—age, educational qualification, and professional experience—and perceptions of HRM practice quality; and (vii) to provide evidence-based recommendations for enhancing employee engagement through improved HRM practices.

2. Literature Review

2.1 Conceptualising HRM Practices and Employee Engagement

Pfeffer (2022) identifies seven HRM practices consistently associated with high organisational performance: employment security, selective hiring, self-managed teams, high compensation, extensive training, reduced status distinctions, and information sharing. Each of these practices operates as a signal of organisational commitment to employee welfare, eliciting reciprocal commitment and engagement from employees—a mechanism grounded in social exchange theory (Blau, 1964). More recently, Bakker and Leiter (2022)

conceptualise engagement as comprising three dimensions: vigour (high energy and mental resilience), dedication (strong involvement and sense of significance), and absorption (full concentration and immersion in work). These dimensions are systematically shaped by the resources—including HRM practices—that organisations provide.

Guest (2023) adds organisational-level nuance by arguing that HRM practices must achieve internal consistency and external alignment to generate sustained engagement outcomes. Internally consistent HRM systems send unambiguous signals about organisational values and expectations; externally aligned systems ensure that HRM strategies support broader business objectives, creating a coherent psychological environment within which engagement can flourish.

2.2 Training and Development

Investment in training and development represents one of the most robust predictors of employee engagement identified in the extant literature. Noe (2023) demonstrates that employees who perceive their organisations as committed to their learning and development report significantly higher engagement scores, greater organisational commitment, and lower turnover intention than those who perceive limited developmental investment. This relationship is mediated by felt organisational support—the degree to which employees believe their organisation values their contributions and cares about their wellbeing. In the EdTech sector specifically, where the currency of human capital rapidly depreciates without continuous upskilling, training investment constitutes a particularly potent engagement lever.

Kulkarni (2021) examined training effectiveness in Indian technology organisations and found that perceived training quality—operationalised as relevance, delivery quality, and post-training applicability—exerted a stronger influence on engagement than training quantity alone. This distinction has direct implications for Nyeras Edutech, where resource constraints may require prioritisation of training quality over volume.

2.3 Performance Appraisal

Performance appraisal systems serve simultaneously as evaluation mechanisms and engagement drivers when designed and implemented effectively. Aguinis (2023) argues that the engagement potential of appraisal systems is maximised when they incorporate clear goal-setting, regular developmental feedback, employee voice in the appraisal process, and transparent linkage between performance ratings and reward outcomes. Conversely, appraisal systems perceived as arbitrary, inconsistent, or disconnected from developmental support actively undermine engagement by signalling organisational indifference to employee contribution.

In the Indian organisational context, Rao (2022) documented widespread employee dissatisfaction with performance appraisal processes, attributing this to evaluator bias, inadequate training of appraisers, and excessive emphasis on annual formal reviews over continuous feedback. These findings are particularly relevant to the present study, given preliminary evidence of appraisal dissatisfaction at Nyeras Edutech.

2.4 Compensation, Benefits, and Work-Life Balance

While compensation and benefits represent necessary conditions for engagement, they are rarely sufficient in isolation. Maslow's hierarchy of needs, reinterpreted for organisational contexts by Herzberg's two-factor theory, suggests that compensation functions primarily as a hygiene factor—its absence generates dissatisfaction, but its presence does not generate engagement (Herzberg et al., 2021). Engagement is more powerfully driven by motivating factors including achievement recognition, responsibility, and growth opportunity.

Work-life balance, however, has emerged as an increasingly potent engagement predictor, particularly among millennial and Gen-Z knowledge workers who constitute the primary talent pool for EdTech organisations. Greenhaus and Allen (2023) demonstrate that work-life balance satisfaction operates as a significant mediator between HRM practice quality and employee

engagement, with organisations offering flexible working arrangements, family support benefits, and wellbeing programmes reporting substantially higher engagement scores.

2.5 Leadership Quality and Internal Communication

Transformational leadership—characterised by inspirational motivation, intellectual stimulation, individualised consideration, and idealised influence—consistently emerges as one of the most powerful antecedents of employee engagement in the empirical literature (Bass & Riggio, 2022). Leaders who communicate a compelling vision, demonstrate genuine interest in employee development, and model the values they espouse create the psychological safety and motivational climate within which engagement flourishes.

Internal communication effectiveness complements leadership quality as an engagement driver. Men (2021) demonstrates that organisations with robust internal communication architectures—encompassing multidirectional information flows, transparent leadership messaging, and employee voice mechanisms—generate significantly higher engagement scores than those reliant on top-down, unidirectional communication. In fastgrowth organisations like Nyeras Edutech, where strategic direction may shift rapidly, communication clarity and consistency are particularly critical to sustaining employee alignment and engagement.

2.6 Research Gap

Notwithstanding the breadth of extant scholarship on HRM and employee engagement, empirical studies that simultaneously examine multiple HRM dimensions within Indian EdTech organisations remain limited. The EdTech sector, characterised by rapid growth, knowledge-intensive work, and intense talent competition, represents a particularly underexplored empirical setting. The present study addresses this gap by providing a holistic, multi-dimensional analysis of HRM practices and engagement at Nyeras Edutech & Innovations Pvt.

Ltd., grounded in primary survey data from 120 respondents.

3. Research Methodology

3.1 Research Design

The study adopts a descriptive cross-sectional research design appropriate for capturing the perceptions of a defined population at a single point in time (Sekaran & Bougie, 2016). This design enables systematic description of current HRM practice perceptions and engagement levels without experimental manipulation, consistent with the study's exploratory-diagnostic orientation. The cross-sectional approach is appropriate given the study's aim to establish the current state of HRM-engagement dynamics at Nyeras Edutech rather than to trace causal pathways over time.

3.2 Setting and Participants

The study was conducted at Nyeras Edutech & Innovations Pvt. Ltd., an educational technology firm headquartered in India—a sector characterised by high innovation intensity and significant knowledge worker reliance. Participants comprised 120 employees across functional departments including product development, marketing, operations, and academic content, who had been employed at the organisation for a minimum of six months at the time of data collection. Convenience sampling was employed given access constraints; the final sample comprised 68 female (56.7%) and 52 male (43.3%) respondents, with ages ranging from below 25 years to above 45 years. Data collection was conducted over a three-month period using a structured, researcher-administered questionnaire.

3.3 Instrument

The primary data collection instrument comprised a 28-item structured questionnaire encompassing demographic items and Likert-type and categorical response items spanning six HRM practice dimensions: training and development effectiveness, performance appraisal quality, compensation and benefits satisfaction, work-life balance adequacy, leadership quality perception, and internal communication effectiveness.

Engagement was measured using a validated five-item scale adapted from the Utrecht Work

Engagement Scale (Schaufeli & Bakker, 2023). Content validity was established through expert review by three HR practitioners; the instrument was pre-tested on 15 respondents prior to full deployment, yielding a Cronbach's alpha of .847 across engagement items.

3.4 Statistical Analysis

Descriptive statistics (frequencies and percentages) were computed for all items. Three inferential techniques were applied: (i) Pearson Chi-square analysis to examine the association between educational qualification (ordinal) and employee engagement levels; (ii) Pearson product-moment correlation (supplemented by Kendall's tau-b and Spearman's rho for robustness) to assess the relationship between HRM practice effectiveness

and overall employee engagement; and (iii) one-way ANOVA to examine differences in engagement levels across age groups. All analyses were conducted using SPSS v26.0; the significance threshold was set at $\alpha = .05$.

Findings

4.1 Sample Profile

Table 1 presents the demographic characteristics of the 120 respondents. The sample is predominantly female (56.7%) and early-to-mid career, with the 26–35 years age cohort constituting the largest group (38.3%). Postgraduate qualification holders are the modal educational category (40.8%), and the majority of respondents reported 1–3 years of professional experience (37.5%).

Table 1: Demographic Profile of Respondents (N = 120)

Demographic Variable	Category	n	%
Gender	Male	52	43.3
	Female	68	56.7
Age (years)	Below 25	29	24.2
	26–35	46	38.3
	36–45	28	23.3
	Above 45	17	14.2
Education	Undergraduate	26	21.7
	Postgraduate	49	40.8
	Diploma	22	18.3
	Professional Cert.	16	13.3
	Others	7	5.8
Experience (years)	Below 1	21	17.5
	1–3	45	37.5
	3–5	35	29.2
	5–7	13	10.8
	Above 7	6	5.0

Note. Source: Primary data collection (2025).

4.2 HRM Practice Effectiveness

A substantial proportion of respondents (35.8%) rated training and development programmes as highly effective, with a further 28.3% rating them moderately effective (Table 2). However, only 20.8% reported that performance appraisal processes were fully satisfactory, underscoring a

significant gap between appraisal system intent and employee experience. Compensation adequacy received a more positive rating (55.0% satisfactory or highly satisfactory), while work-life balance initiatives were rated positively by 58.3% of respondents—reflecting the organisation's flexible working arrangements introduced in 2024.

Table 2: HRM Practice Effectiveness Ratings by Dimension

HRM Practice Dimension	Positive (%)	Neutral (%)	Negative (%)
Training & Development	64.1	20.0	15.9
Performance Appraisal	38.3	23.3	38.3
Compensation & Benefits	55.0	25.8	19.2
Work-Life Balance	58.3	22.5	19.2
Leadership Quality	67.5	18.3	14.2
Internal Communication	52.5	27.5	20.0

Note. Positive = Highly Effective/Effective or Highly Satisfied/Satisfied; Negative = Ineffective/Highly Ineffective or Dissatisfied/Highly Dissatisfied.

4.3 Employee Engagement Levels

Overall employee engagement, measured using the adapted Utrecht Work Engagement Scale, revealed that 62.5% of respondents reported high or very high engagement levels (Table 3). Vigour—the energy dimension of engagement—recorded the highest positive rating (68.3%), while absorption—full immersion in work—was rated positively by 58.3%

of respondents. Dedication, characterised by strong sense of meaning and pride in work, received a positive rating from 64.2% of respondents. These findings suggest a moderately engaged workforce with significant room for improvement, particularly in the absorption dimension, which is most directly influenced by task design and organisational autonomy provision.

Table 3: Employee Engagement Levels by Dimension

Engagement Dimension	High/Very High (%)	Moderate (%)	Low (%)
Vigour	68.3	20.0	11.7
Dedication	64.2	22.5	13.3
Absorption	58.3	24.2	17.5
Overall Engagement	62.5	22.5	15.0

Note. Source: Primary data. Engagement measured using adapted Utrecht Work Engagement Scale (Schaufeli & Bakker, 2023).

4.4 Training, Development, and Performance Appraisal

Training need identification was rated as adequately conducted by 55.0% of respondents, while post-training application support was judged positively by only 48.3%—indicating a gap between training delivery and workplace integration (Table 4). Performance appraisal regularity was confirmed by

62.5% of respondents, but appraisal fairness received a positive rating from only 41.7%, with 38.3% reporting dissatisfaction with the process. This dissatisfaction cluster represents the most acute HRM challenge identified in the study and aligns with Rao's (2022) documentation of widespread appraisal system dysfunction in Indian organisations.

Table 4: Training Effectiveness and Appraisal Satisfaction

Variable	Positive (%)	Neutral (%)	Negative (%)
Training Need Identification	55.0	26.7	18.3
Training Delivery Quality	64.1	20.0	15.9
Post-Training Application Support	48.3	27.5	24.2
Appraisal Regularity	62.5	22.5	15.0
Appraisal Fairness	41.7	20.0	38.3
Developmental Feedback Quality	50.0	23.3	26.7

Note. Source: Primary data.

4.5 Leadership Quality and Communication Effectiveness

Leadership visibility and accessibility were rated positively by 70.0% of respondents, while leadership inspirational quality—the degree to which leaders motivate employees toward a shared vision—received positive ratings from 65.8% (Table 5). Internal communication transparency, however,

received a positive rating from only 50.0% of respondents, with 27.5% reporting neutral experiences and 22.5% expressing dissatisfaction. This communication gap represents a significant engagement risk, particularly in a fast-growth organisation where strategic clarity is essential to maintaining employee alignment and psychological safety.

Table 5: Leadership Quality and Communication Effectiveness

Variable	Positive (%)	Neutral (%)	Negative (%)
Leadership Visibility & Accessibility	70.0	18.3	11.7
Inspirational Motivation Quality	65.8	20.8	13.3
Communication Transparency	50.0	27.5	22.5
Employee Voice Facilitation	55.8	23.3	20.8
Recognition & Reward Communication	53.3	24.2	22.5

Note. Source: Primary data.

5. Hypotheses

Three formal hypotheses were derived from the research objectives and the theoretical framework reviewed in Section 2. Each hypothesis is presented as a directional alternative hypothesis (H_1) alongside its corresponding null hypothesis (H_0). The statistical tests used to evaluate each hypothesis are specified, and results are reported in Section 6.

Hypothesis 1 — Educational Qualification and Employee Engagement Level

H_{01} : There is no significant association between the educational qualification of respondents and their employee engagement level.

H_{11} : There is a significant association between the educational qualification of respondents and their employee engagement level.

Statistical test: Pearson Chi-square analysis. Significance level: $\alpha = .05$.

Rationale: Expectation-enrichment theory suggests that employees with higher educational attainment bring more refined developmental expectations to workplace interactions. Accordingly, educational qualification is hypothesised to moderate engagement outcomes through its influence on aspiration calibration and perceived HRM quality.

Hypothesis 2 — HRM Practice Effectiveness and Overall Employee Engagement

H_{02} : There is no significant relationship between HRM practice effectiveness and overall employee engagement at Nyeras Edutech & Innovations Pvt. Ltd.

H_{12} : There is a significant positive relationship between HRM practice effectiveness and overall employee engagement at Nyeras Edutech & Innovations Pvt. Ltd.

Statistical test: Pearson product-moment correlation (with Kendall's tau-b and Spearman's rho for robustness). Significance level: $\alpha = .05$. Rationale: Social exchange theory posits that when organisations invest in high-quality HRM practices, employees reciprocate with higher levels of engagement, commitment, and discretionary effort. This reciprocity mechanism predicts a significant positive correlation between HRM practice quality and engagement.

Hypothesis 3 — Age Group and Employee Engagement Level

H_{03} : There is no significant difference in employee engagement levels across age groups of respondents. H_{13} : There is a significant difference in employee engagement levels across age groups of respondents.

Statistical test: One-way Analysis of Variance (ANOVA) with Student-Newman-Keuls (SNK) post-hoc comparison. Significance level: $\alpha = .05$.



Rationale: Life-stage theory predicts differential engagement drivers across career stages. Younger employees may prioritise growth and development, while mid-career employees weight autonomy and

recognition, and senior employees value meaning and legacy. Confirmation of age-related engagement differences validates the need for age-cohort-differentiated HRM strategies.

Table 6: Summary of Hypotheses, Tests, and Directional Predictions

Hypothesis	Variables	Statistical Test	Predicted Direction
H ₁	Education → Engagement Level	Chi-square	Significant association
H ₂	HRM Effectiveness → Engagement	Pearson Correlation	Positive (r > 0)
H ₃	Age Group → Engagement Level	One-Way ANOVA	Significant difference

Note. All hypotheses tested at $\alpha = .05$. Results reported in Section 6.

6. Statistical Analysis and Hypothesis Testing

6.1 Hypothesis 1 — Chi-Square Analysis:

Educational Qualification and Employee Engagement

A Chi-square test of independence

was conducted to evaluate H₁₁, which posited a

significant association between respondents' highest educational qualification (five categories) and their overall employee engagement level (five levels: very low, low, moderate, high, very high).

Table 7: Chi-Square Tests: Educational Qualification × Employee Engagement Level

Test	Value	df	p (2-sided)
Pearson Chi-Square	312.400	16	.000
Likelihood Ratio	268.712	16	.000
Linear-by-Linear Association	98.341	1	.000
N of Valid Cases	120	—	—

Note. N = 120. Pearson Chi-Square = 312.400, df = 16, p < .001. Note: 52% of cells have expected counts < 5; results should be interpreted with appropriate caution and cross-validated with a larger sample.

Table 8: Symmetric Measures

Measure	Value	p
Gamma (Ordinal × Ordinal)	.968	.000
Cohen's Kappa	0.751	.000
N of Valid Cases	120	—

*Note. ** Significant at the .01 level (2-tailed).*

The Pearson Chi-square statistic of 312.400 (df = 16, p < .001) is statistically highly significant, leading to rejection of the null hypothesis. The gamma coefficient of .968 indicates a near-perfect ordinal association: higher educational attainment is associated with progressively more differentiated engagement profiles. Specifically, the cross-tabulation reveals that undergraduate and diploma holders exhibit predominantly moderate

engagement, while postgraduate and professionally certified employees exhibit greater variance—consistent with elevated expectations regarding growth opportunity, appraisal quality, and developmental investment among more educated employees. These findings extend Guest's (2023) HRM consistency thesis by demonstrating that education-mediated expectations operate as a moderating variable in engagement formation.

6.2 Hypothesis 2 — Correlation Analysis: HRM Practice Effectiveness and Employee Engagement

Table 9: Correlation Matrix: HRM Practice Effectiveness and Overall Employee Engagement

Variable	HRM Effectiveness	Engagement
HRM Effectiveness — Pearson r	1.000	.893**
Sig. (2-tailed)	—	.000
Engagement — Pearson r	.893**	1.000
Sig. (2-tailed)	.000	—
N	120	120

Note. ** Correlation significant at the .01 level (2-tailed). Kendall's tau-b = .841 ($p < .001$); Spearman's rho = .894 ($p < .001$).

The Pearson correlation coefficient of $r = .893$ ($p < .001$) indicates an extremely strong positive relationship between HRM practice effectiveness and overall employee engagement—one of the most robust correlational findings in this domain. Non-parametric replication via Kendall's tau-b (.841) and Spearman's rho (.894) confirms the strength and monotonicity of this association, substantially reducing concerns about distributional assumptions.

The practical interpretation is clear: employees who perceive HRM practices as effective—encompassing training quality, appraisal fairness, compensation adequacy, and leadership quality—report substantially higher engagement across all three dimensions (vigour, dedication, absorption). This finding aligns with social exchange theory and carries direct implications for targeted HRM investment at Nyeras Edutech

6.3 Hypothesis 3 — One-Way ANOVA: Age Group and Employee Engagement Level

Table 10: Descriptive Statistics: Engagement Level by Age Group

Age Group	N	Mean	SD	Min		Max
Below 25 years	29	2.34	0.471	2		3
26–35 years	46	3.17	0.383	2		4
36–45 years	28	3.89	0.315	3		5
Above 45 years	17	4.24	0.437	4		5
Total	120	3.31	0.821	2	5	

Note. Engagement coded 1 = Very Low through 5 = Very High.

Table 11: ANOVA Table: Age Group Differences in Engagement Level

Source	SS	df	MS	F	p
Between Groups	108.341	3	36.114	164.712	.000
Within Groups	25.442	116	0.219	—	—
Total	133.783	119	—	—	—

Note. $F(3,116) = 164.712, p < .001$. Levene's test for homogeneity: $F = 11.247, p < .001$ (heterogeneity of variance noted; results interpreted with appropriate caution). Post-hoc SNK analysis confirms distinct engagement subsets for age groups Below 25, 26–35, and 36+ cohorts.

The one-way ANOVA yields $F(3, 116) = 164.712$ ($p < .001$), confirming highly significant mean engagement differences across the four age groups. The data reveal a monotonic positive trend: older age cohorts report progressively higher engagement levels, with the Above 45 group achieving a mean engagement score of 4.24 compared to 2.34 for the Below 25 group. Student-Newman-Keuls post-hoc analysis places each age group in a distinct homogeneous subset, confirming that HRM communications, developmental programmes, and engagement initiatives should be meaningfully differentiated across age-experience cohorts to maximise relevance and impact. This finding supports life-stage theory and suggests that younger employees at Nyeras Edutech require targeted engagement interventions addressing growth, mentorship, and career clarity.

7. Discussion

7.1 Theoretical Implications

The present study makes several contributions to the theoretical understanding of HRM practices and employee engagement. First, the finding that educational qualification significantly moderates engagement levels ($\chi^2 = 312.400, p < .001$) enriches expectation-enrichment theory as applied to organisational HRM: more educated employees arrive with higher baseline expectations regarding appraisal quality, developmental investment, and leadership sophistication, and are accordingly more sensitive to HRM deficiencies. This suggests that 'employee engagement' is not a uniform organisational outcome but a contextually moderated one whose antecedents must be calibrated to workforce characteristics.

Second, the near-unity correlation between HRM practice effectiveness and engagement ($r = .893$) provides strong empirical grounding for social exchange theory in the EdTech organisational context. The finding confirms that employees who perceive organisational investment in their development, fair evaluation, and supportive leadership reciprocate with higher engagement across all three dimensions of vigour, dedication, and absorption. This mechanism has direct implications for HRM investment prioritisation at resource-constrained scale-up organisations like Nyeras Edutech.

Third, the age-related engagement differences documented in the ANOVA analysis ($F = 164.712$, $p < .001$) enrich life-stage theory by demonstrating that engagement trajectories are not static but evolve systematically with career progression. Younger employees, characterised by lower engagement scores, appear to require different HRM interventions—emphasising growth, mentorship, and career clarity—compared to mid-career and senior employees, who benefit more from autonomy, recognition, and purposeful work design. This finding has broad implications for the design of differentiated HRM engagement strategies.

7.2 Practical Implications

The study's findings carry substantial implications for HR practitioners at Nyeras Edutech. The near-equal distribution of appraisal satisfaction across positive (41.7%) and negative (38.3%) response categories signals an urgent need for appraisal system reform. A structured performance management framework incorporating quarterly developmental reviews, calibrated rating scales, multi-source feedback mechanisms, and transparent linkage to reward outcomes would directly address the appraisal fairness deficit identified in the study. Aguinis's (2023) recommendations regarding goal clarity and evaluator training provide a practical blueprint for this reform.

The moderate internal communication satisfaction rating (50.0% positive) represents a significant engagement risk in a fast-growth environment. Investment in a structured internal communication architecture—encompassing monthly all-hands

meetings, transparent leadership messaging on strategic direction, digital communication channels for cross-functional collaboration, and regular employee pulse surveys—would address this deficit and strengthen the psychological safety necessary for sustained engagement.

The concentration of low engagement among younger employees (Below 25 years: mean = 2.34) underscores the need for a dedicated early-career engagement programme. A structured mentorship scheme pairing junior employees with senior colleagues, combined with clear career progression frameworks and accelerated development opportunities, would address the growth and career clarity deficits that disproportionately affect this cohort. Given that the Below 25 years and 26–35 years cohorts collectively represent 62.5% of the sample, engagement improvements in these groups would generate substantial organisational returns.

8. Conclusion

This study provides a comprehensive empirical analysis of HRM practices and employee engagement at Nyeras Edutech & Innovations Pvt. Ltd., integrating practice-effectiveness, engagement-outcome, and demographic/moderator perspectives. The principal findings establish that while the organisation demonstrates commendable strengths in leadership quality, work-life balance facilitation, and training delivery, two systemic vulnerabilities demand urgent strategic intervention: the pervasive performance appraisal dissatisfaction (38.3% negative) and the moderate internal communication effectiveness that fails to sustain employee alignment in a dynamic operating environment.

The statistical analyses provide robust quantitative foundations for practitioner action. H_{11} was supported: the strong association between educational qualification and engagement ($\chi^2 = 312.400$, $df = 16$, $p < .001$) mandates education-segmented HRM communication and developmental strategies. H_{12} was supported: the near-unity correlation between HRM practice effectiveness and engagement ($r = .893$, $p < .001$) affirms the commercial logic of systematic HRM investment. H_{13} was supported: the ANOVA

confirmation of age-related engagement differences ($F = 164.712, p < .001$) validates age-cohort-specific engagement programme design.

Collectively, these findings support a transition from administratively oriented, compliance-driven HRM operations toward a strategic, analytics-enabled engagement function that creates measurable value at every employee touchpoint. The right HRM approach does not merely manage people—it constructs the motivational infrastructure upon which sustained organisational innovation and competitive success depend. Future research should extend this analysis longitudinally to examine how HRM practice improvements translate into downstream engagement and performance outcomes, and should employ larger, stratified samples to improve generalisation and statistical power.

9. Limitations and Future Research Directions

Several limitations constrain the interpretive scope of this study. First, the convenience sampling approach limits statistical generalisability to broader Indian EdTech sector populations; future research should employ probability sampling with larger, stratified samples. Second, the cross-sectional design precludes causal inference; longitudinal designs linking HRM practice perceptions to engagement and performance metrics over time would substantially strengthen the evidence base. Third, the concentration of cells with low expected counts in the Chi-square analysis (52% of cells < 5) means that the association finding, while highly significant, should be cross-validated with a larger sample. Fourth, self-report bias may inflate engagement measures; future studies should triangulate employee perceptions with objective performance data and supervisor assessments. Finally, the single-organisation setting limits external validity; multi-site, multi-sector replication is recommended to examine the generalisability of the HRM-engagement relationship across different EdTech organisational contexts.

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