

HRM Practices in Libraries of Private Engineering Colleges in Coastal Andhra Pradesh: An Analytical Study

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Abstract—Key findings: Compensation and Promotion received the lowest mean score ($M = 2.89$), while overall Job Satisfaction was moderate ($M = 3.35$). All four HRM dimensions correlated significantly with Job Satisfaction ($r = 0.589$ to 0.672 , $p < 0.01$). The regression model explained 61.2% of the variance in Job Satisfaction ($F(4, 115) = 44.87$, $p < 0.001$). Training and Development was the strongest predictor of Job Satisfaction ($\beta = 0.312$), followed by Performance Appraisal ($\beta = 0.248$), Compensation and Promotion ($\beta = 0.198$), and HRM Practices ($\beta = 0.187$). Strategic investment in participatory appraisal reform offers the greatest benefit for staff satisfaction. Extensive HRM policy interventions are recommended for these libraries.

Index Terms—Human Resource Management, Academic Libraries, Training and Development, Performance Appraisal, Job Satisfaction, Compensation and Promotion, Library Professionals.

I. INTRODUCTION

Academic libraries provide information resources and services to students, faculty, and researchers. These groups form the intellectual backbone of educational institutions, supporting teaching, learning, and research. The utility of a library depends less on its physical buildings or digital collections and more on the training, dedication, and morale of its professional staff. Human resource management plays a vital role by ensuring staff are trained, assessed, remunerated, and motivated for optimal performance.

1.1. Academic Libraries and HRM

The rise of digitization, automation, and artificial intelligence has rapidly changed academic libraries.

Library professionals must regularly update their technical skills, move from traditional service models, and adapt to complex institutional changes. Despite these demands, HRM in academic libraries faces challenges. These include inadequate training infrastructure, non-inclusive appraisal systems, unequal remuneration, and limited career development. Such issues reduce job satisfaction and can increase turnover.

This study aims to examine the influence of training and development, performance appraisal, human resource management practices, and compensation on the job satisfaction of academic library professionals. It seeks to provide empirically grounded recommendations for institutional enhancement.

1.2. Objectives of the Study

- To investigate the socio-demographic characteristics of academic library professionals, as well as evaluate training needs and development programs, particularly ICT capabilities and continuing education available to librarians.
- To assess the fairness and effectiveness of performance appraisal systems in academic libraries and to evaluate the quality of HRM practices, including recruitment, manpower planning, and coordination between library management and the HR Department of institutions.
- To assess the genuine satisfaction of library professionals with their salary, promotion and retention strategy and determine whether compensation is seen as fair and equitable against other academic staff.

- To examine the correlation between job satisfaction with selected four HRM dimensions: Training and Development, Performance Appraisal, HRM Practices and Recruitment, Compensation and Promotion.
- To observe the extent of the impact of decisions made by some dimensions on overall job satisfaction.

Cronbach's alpha was used to assess the research instrument's reliability, and a multiple regression analysis was performed to identify which HRM dimension is the strongest predictor of job satisfaction and to provide recommendations for improving HRM practices in academic libraries.

1.3. Scope of the study

The study is confined to library professionals employed in eight selected private engineering colleges across Coastal Andhra Pradesh: GMR Institute of Technology (Rajam), AITAM (Tekkali), MVGR College of Engineering (Vizianagaram), GVPCE and ANITS and VIIT (Visakhapatnam), Aditya College of Engineering (Kakinada), and Vishnu Institute of Technology (Bhimavaram). It examines four HRM dimensions: Training and Development, Performance Appraisal, HRM Practices and Recruitment, and Compensation and Promotion and their influence on Job Satisfaction. Data were collected during 2023–24, and findings are limited to AICTE-approved private engineering college libraries in the region.

Select Engineering Colleges – Andhra Pradesh	Select Engineering Colleges – Andhra Pradesh	Select Engineering Colleges – Andhra Pradesh	Select Engineering Colleges – Andhra Pradesh
S.No	Full Name	Established	Type
1	GMR Institute of Technology	1997	Private
2	Aditya Institute of Technology & Management	2001	Private
3	Maharaj Vijayaram Gajapathi Rai College of Engineering	1997	Private
4	Gayatri Vidya Parishad College of Engineering	1996	Private
5	Anil Neerukonda Institute of Technology & Sciences	2001	Private
6	Vignan's Institute of Information Technology	2002	Private
7	Aditya College of Engineering	2001	Private
8	Vishnu Institute of Technology	2008	Private

II. REVIEW OF LITERATURE

Wilkinson & Lewis (2006)

According to Wilkinson and Lewis, change is coming thick and fast in academic libraries, and staff need extensive ongoing training (p. 391). The authors maintained that training should align with the library's strategic mission and goals while also supporting individual career development. They classified training as externalconferences, virtual sessions, and vendor-delivered training and internalpeer-led sessions, information open houses, and student employee training. The report found that administrators could assist by ensuring training opportunities are funded and made available, and should include planning for ongoing education as part

of performance review activities and annual goal-setting.

The Role of Human Resources in the Library By Arun Kumar Maharana (2025)

Maharana (2015) explored the importance of human resource management (HRM) in academic libraries, stating that no library can run without good people and proper administration, and emphasising that only a quality library with effective HRM is successful. Their study examined the application of Fayol's and POSDCORB's management principles in libraries. Categorising library staff as professional, semi-professional, non-professional and support categories and specifying their responsibilities within high-, middle-, and lower-management segments. The paper

suggested initiatives to promote lifelong learning, such as workshops, mentorship programs, job rotation assignments, the use of new technologies and performance evaluations with a developmental orientation, thereby cultivating an environment for professional development, which in turn facilitates better service delivery.

Employee Performance Appraisal Process of College Libraries of Mahendergarh District: A Case Study Ramchander (2015)

Using a descriptive cross-sectional survey, Ramchander surveyed the performance appraisal systems in college libraries in Mahendergarh District, Haryana, with 50 respondents. The appraisals were predominantly used for salary determination (92.75%) and identification of promotion opportunities (61.25%), but were rarely used for employee development, as reported in the study. Of them, 32 per cent considered the system to be notionally unfair regarding appraisal outcomes, and 63 per cent said performance rewards were not reflective of appraisal outcomes. Article metrics Suggested Citation The study identified subjectivity & lack of transparency as significant challenges and suggested a multi-rater feedback mechanism, training for evaluators, and appraisal appeal procedures to enhance consistency and fairness.

Rajashekara (2021) Performance Appraisal System in R&D Libraries of Karnataka State

Rajashekara, a study on the performance appraisal system of 45 Research and Developmental (R&D) libraries in Karnataka State, India, surveyed 189 professionals. It was found that 90.5% of libraries had a uniform performance appraisal system, and that immunisation respondents (67.7%) were satisfied with the existing Appraisal standard. Annual appraisals accounted for the majority (85.7%). Nonetheless, a staggering 64.6% of those surveyed were not satisfied with the organisational response to biased appraisal material. The research suggested that libraries in R&D should work with staff to frame appraisal standards, practise openness, and continue training & development in the face of rapid technological change (Blackburn et al., 2009).

Kadyan, R., and Sohanlal, M.D.(n.d.) An Overview Of Conceptual Framework On Performance Appraisal In Academic Libraries [n.p].

Kadyan and Sohanlal described the historical and conceptual background of performance appraisal systems in academic libraries, explaining how they evolved from informal, subjective assessments in the 1900s to structured, technology-integrated systems used to assess librarians today. Abstract. The authors have reviewed different diode rating, grading, forced distribution, and essay methods, paired with several contemporary approaches, including Management by objectives (MBO), BARS, 360-degree feedback, and 720-degree feedback. The respondents to the paper identified staff motivation as a key purpose of appraisal alongside training needs identification, career development, and organisational goal alignment. Subjectivity and generalisation, inertia, time, restrictions and distrust or mislicensing of culture were also addressed during systematic reviews.

Library Staff Development through Performance Appraisal (Berkner 1979)

Berkner claimed that performance appraisal is a strong instrument for professional development and staff growth in academic libraries, not just a formal mechanism for making salary and promotion decisions. Based on the principles of Management by Objectives (MBO) and using critical incident techniques, the author created a seven-step interactive programme that included supervisory training, goal setting to maximise performance opportunities, system interaction, and ongoing feedback loops. The paper argued against traditional rating-scale methods because they are subjective and psychologically harmful; it urged implementation of a collaborative, future-focused method that builds on strengths. He finally urged that administrative support and a mutually agreed-upon set of goals are a sine qua non for any viable library appraisal program.

Education and Training of Librarians for National Integration and Development in Nigeria Eyo, Afebende & Nkanu (2018)

Eyo, Afebende, and Nkanu evaluated librarians' education and training programs in 11 libraries in Cross River State, Nigeria, in relation to national integration and development. The study was a total

enumeration survey of 63 librarians and indicated that the acquisition of doctoral qualifications promotes administrative performance (95.2% strongly agree), whereas IT training workshops, coaching, and mentoring also significantly improve job competencies. The authors explored course content at the University of Calabar and the University of Uyo and suggested a redesigned curriculum that focuses more on ICT applications in library studies, practicum-oriented approaches to teaching and learning in libraries, and emerging technologies to equip librarians with twenty-first-century skills needed for information services.

Training & Development of Library Professionals for IT Application in University Libraries, Saha, Ghosh & Mondal (2007)

Saha, Ghosh, and Mondal examined the HRD dimensions needed to effectively implement information technology in university libraries. Schmidt and others found that LIS professionals need three key skill sets: technical skills for acquiring and synthesising information; IT skills covering computer literacy and communication technologies; and managerial skills for technology assessment, planning, and team coordination. They identified three levels of IT competencies: basic electronic competencies, function-specific electronic competency and electronic expertise. The paper suggested ways to develop a technology-ready library workforce, such as team-building strategies, performance reviews and coaching, and regular excursions/field trips to modern libraries.

This paper is titled " A Study of Job Satisfaction of Librarians (Choudhary & Hemlata, 2018)

Choudhary & Hemlata (2018) discussed the multiple facets of job satisfaction for library professionals in developing countries by examining results from several years of previous studies. They identified the factors that make up a librarian's job satisfactionsuch as compensation and working conditions, work-life balance, recognition, job security, professional challenges, and career growth opportunities. The paper reviewed studies conducted in Haryana, Nigeria, Pakistan, and Egypt and found that work-related characteristics were stronger predictors of job satisfaction than demographic variables such as gender or marital status. They concluded that annual

satisfaction surveys, opportunities to attend conferences and seminars, and equitable salary structures are essential for sustaining librarian motivation and service quality.

Library Services in the Digital Age; Job Satisfaction of Library Professionals of the University of Calicut Rachael & Devi (2019) An analytical study was conducted by Rachael and Devi to measure job satisfaction among library professionals at C.H. Mohammad Koya Library, University of Calicut, Kerala, using a structured questionnaire administered to 56 respondents. The study assessed satisfaction over six dimensions: physical environment and ICT infrastructure, organisational culture, personal growth, salary, promotion and nature of work. Three-quarters (73%) of respondents reported being satisfied with their working conditions, but salary and promotion were important barriers, as about one-fourth (24%) felt somewhat dissatisfied with economic benefits. No Recommendation 4 Review of promotion and salary conditions (between operational affiliations) to encourage professional participation in conferences and study visits; Increase provision for motivational incentives to achieve higher overall job satisfaction levels

HR practices in Nigerian academic libraries were studied by Ikokoh et al. (2013). The study reviews HRM functions, including job analysis, recruitment, performance management, training, compensation, and labour relations. The study found that most Nigerian academic libraries were using outdated recruitment formats and treating performance appraisal as a ceremonial activity rather than a strategic tool. Pay inequality between librarians and other equivalently qualified academic staff was highlighted as a major demotivator. The authors suggested that library heads work with institutional HR managers to develop a comprehensive set of HRM policies and seek adequate funding from parent institutions to support skill development for MCs.

There have been comprehensive reviews by authors such as Mondal (2020) on the HRM functions of library administration, and, in any library, human **resources represent** the best asset. The study mentioned some important HRM functions, including manpower planning, Job analysis, recruitment and selection, motivation, training, performance

evaluation, and grievance handling. On top of this, Mondal developed a classification for library staff as per their work, professionalised or semi-professionalised, non-professional and supporting workers, along with functions performed by them. The paper also observed that libraries should articulate their value to parent organisations by continually refining and updating staff skills, including keeping up with changing technologies. Previously, libraries had been identified as capable of building capacity for retention of place in the 21st century.

Research by Meena (2023) has reviewed recruitment & Retention strategies in libraries, stating that human resource management is crucial for sustaining library services in the digital age. The study explored the historical progression of library HRM, from ancient scribal practices to modern strategic workforce management. The report also flagged major pain points, such as skills gaps, budget issues, high turnover rates and a growing need for tech-savvy professionals. The study suggested that libraries invest in professional development, mentorship programs, diversity and inclusion initiatives, and competitive compensation. Where libraries practised flexible working and education, turnover was much lower, and overall performance was proportionately higher.

III. METHODOLOGY

The current study utilised a quantitative, descriptive-correlational research design to gain an understanding of how four independent variables, Training and Development (TD), Performance Appraisal System (PA), HRM Practices and Recruitment (HRM), Compensation, Promotion and Retention (CP), influence the dependent variable Job Satisfaction and Professional Growth (JS) among academic library professionals. A purposive sample

of 120 library professionals from academic, college and research libraries was surveyed using a structured questionnaire containing 16 items rated on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). IBM SPSS Statistics (Version 27.0) (IBM Corp., 2019) was used for data analysis.

Statistical Analyses. Descriptive statistics (mean and standard deviation) were performed, and the frequency distribution was described. Reliability analysis of the questionnaires used Cronbach's alpha, Pearson's product-moment correlation, one-way ANOVA, and multiple linear regression. A $p < .05$ criterion was used for tests of statistical significance. All data were analysed with SPSS 26, and interpretation of the mean score followed a standardised scale: 1.00–1.80 (Strongly Disagree), 1.81–2.60 (Disagree), 2.61–3.40 (Neutral/Moderate), 3.41–4.20 (Agree), and 4.21–5.00 (Strongly Agree). Internal consistency reliability of the measurement instrument was evaluated before continuing with inferential analysis by calculating Cronbach's alpha coefficient. Following Nunnally's (1978) guidelines, alpha values exceeding 0.70 are acceptable for fields of the social sciences; values above 0.80 are good, and those exceeding 0.90 indicate an excellent reliability level. Table 2 clearly shows that all constructs range from satisfactory to very good reliability.

The overall Cronbach's alpha for the 16-item scale was 0.891, indicating excellent internal consistency. The highest reliability at the sub-scale level was recorded for Compensation, Promotion and Retention (IV4) ($\alpha = 0.856$), followed by Job Satisfaction and Professional Growth, the dependent variable ($\alpha = 0.872$), Training and Development ($\alpha = 0.847$), Performance Appraisal System ($\alpha = 0.831$) and HRM Practices & Recruitment ($\alpha = 0.819$). All alpha values were above the [0.8] threshold, suggesting that items within each construct were consistently measuring the same latent construct (Table 2).

Table 2 Results of Reliability Analysis: Cronbach's Alpha Coefficients

S.No.	Variable	No. of Items	Cronbach's α	Interpretation
1	Training and Development	4	0.847	Good
2	Performance Appraisal System	4	0.831	Good
3	HRM Practices and Recruitment	3	0.819	Good
4	Compensation, Promotion and	3	0.856	Good

	Retention			
5	Job Satisfaction and Professional Growth (DV)	2	0.872	Good
	Overall Scale (All 16 Items)	16	0.891	Excellent

Note. α = Cronbach's Alpha; DV = Dependent Variable; IV = Independent Variable. Interpretation: $\alpha \geq 0.90$ = Excellent; 0.80–0.89 = Good; 0.70–0.79 = Acceptable.

3.2. Research Gap:

Analysis of the literature on HRM practices, training, performance appraisal and job satisfaction in academic libraries reveals five main gaps. First, while training, appraisal, recruitment and compensation are modelled in isolation (Ramchander, 2015; Rajashekara, 2021) or descriptively synthesised without inferential quantification (Choudhary & Hemlata, 2018; Mondal, 2020), no study models all four HRM dimensions as concurrent predictors of job satisfaction within a regression-based framework. Second, a considerable amount of the literature is theoretical and not empirically validated (Maharana, 2025; Berkner, 1979; Saha et al., 2007). Third, the empirical studies are generally limited in their generalizability to single institutions or districts (Rachael & Devi, 2019; Eyo et al., 2018). Fourth, compensation and retention have not yet been based on inferential statistics as a validated model of satisfaction (Ikokoh et al., 2021; Meena, 2023). Fifth, no study meeting the review criteria performs a Cronbach's alpha reliability analysis of measurement instruments across HRM constructs to validate scales, so that psychometric soundness is unverified across the literature.

Conceptual Framework:

IV. ANALYSIS AND INTERPRETATION

The analysis for the collected data has been done, and the interpretation and discussions have found the

4.1. Demographic Profile of Respondents

The socio-demographic characteristics of the 120 respondents who were included in the study are

Table 1 Demographic Profile of Respondents (N = 120)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	68	56.7
	Female	52	43.3
Age Group	21–30 years	22	18.3

shown in Table 1. The demographic breakdown suggests that the sample consisted mainly of males (n = 68; 56.7%), with females accounting for 43.3% (n = 52). In terms of age range, the highest respondents were from the 31–40 years group (n=45; 37.5%), followed by those aged 41–50 years (n=38;31.7%),17 then aged 21–30 years(n=22;18.3%), and finally aged more than or equal to 51 (n =15;12.5%). This distribution implies that the sample consisted mainly of mid-career and more experienced professionals working in libraries, making their reactions to institutions' HRM practices or policies appear credible.

The majority of respondents (35.0%; n = 42) had worked for 5–10 years, and most respondents reported 29.2% (n = 35) had a work experience of between 11 and 20 years. 23.3% (n = 28) of respondents had practised for less than five years, 12.5% (n = 15) reported more than 20 years of experience. These values indicate that the sample has received an appropriate level of professional exposure to assess the HRM elements under investigation. With respect to academic qualifications, the largest share of holders was made up by Master of Library and Information Science (M.Lib / MLISc; n= 55; 45.8%), followed in size order by B.Lib / BLISc holders (n = 32; 26.7%); some form of Certificate or Diploma holder (n =18;15.0%) and PhD holder(n=15;12.5%). In terms of staff category, the largest proportion (40.0%; n = 48) consisted of professional library staff; semi-professional staff (35.0%; n = 42); and non-professional or support staff comprised the smallest proportion (25.0%; n = 30).

	31–40 years	45	37.5
	41–50 years	38	31.7
	51 years and above	15	12.5
Work Experience	Less than 5 years	28	23.3
	5–10 years	42	35.0
	11–20 years	35	29.2
	More than 20 years	15	12.5
Qualification	Certificate / Diploma in LIS	18	15.0
	B.Lib / BLISc	32	26.7
	M.Lib / MLISc	55	45.8
	PhD in LIS	15	12.5
Staff Category	Professional Library Staff	48	40.0
	Semi-Professional Staff	42	35.0
	Non-Professional / Support Staff	30	25.0
Total		120	100.0

Note. Data derived from the primary survey administered to library professionals (2025-26).

4.2. Descriptive Statistics

Descriptive statistics, including mean (M) and standard deviation (SD) values for all 16 items and their respective variable composites, are presented in Table 3. These statistics provide a foundational understanding of the central tendency and dispersion of respondents' perceptions across all measured constructs.

4.2.1. Training and Development

For Training and Development, the composite mean score was $M = 3.29$ ($SD = 0.93$), indicating moderate satisfaction levels among library professionals. The mean value for each of the items within this construct ranged from 3.28 ($SD = 0.88$) to 3.42 ($SD = 0.91$), with Q1: Structured training programs aligned with institutional strategic goals having the highest mean ($M = 3.42$, $SD=0.91$) indicating roughly agree from responders that their institutions actively had organized training initiatives in place into their plans and processes for integrated education, mostly in response to other more common management roles respective positions have through working people or synergized academic plans, curricula requirements, etc. On the contrary, Q2 about ICT skills training, with a mean of 3.18 ($SD = 0.98$), shows that some respondents rated relatively poor perceptions on the adequacy of technology-oriented training. The

present finding is in agreement with the study of Eyo, Afebende, and Nkanu (2018), who contended that ICT curriculum integration should have a substantive emphasis in any library training programmes. In the same way, Training effectiveness is dependent on alignment with institutional strategy and personal career development plans (Wilkinson and Lewis 2006).

4.2.2. Performance Appraisal System

As the results suggest, that amongst the independent variables with regard to the Performance Appraisal construct is unarguably rated as the least composite mean ($M = 3.02$, $SD = 1.05$) indicating a mostly neutral-to-moderately disagreeable reception of Employee appraisal practices Riding high on this list was Q8, which asked how much employees were involved in framing the appraisal standards, with the lowest item-level mean ($M = 2.87$; $SD = 1.11$), indicating that participatory design of employee appraisals is still largely absent from sampled institutions. Likewise, Q6 the use of contemporary methods like MBO, 360-degree feedback, and BARS scored an average of 2.98 ($SD = 1.07$), indicating that this rating-scale approach remains prevalent despite recommendations against it. More detailed examination of how performance measures relate to other contextual drivers will be presented in a future

study by us. Ramchander (2015) noted an even higher percentage of library staff 32% who viewed appraisal systems as unfair, and Rajashekara (2021) also found that approximately two-thirds (64.6%) of respondents expressed dissatisfaction with organisational responses to biased appraisals. The evidence from this study supports Berkner's (1979) contention that evaluation systems are a collaborative, future-oriented venture.

4.2.3. HRM Practices and Recruitment

The HRM Practices and Recruitment obtained a composite mean of $M = 3.22$ ($SD = 0.94$), indicating moderate satisfaction. The systematic and updated recruitment process scored the highest mean in the construct ($M=3.31$, $SD=0.95$), indicating that it was believed the library's recruitment processes are more systematic than those of non-library organisations (Q9). In contrast, the lowest mean ($M = 3.12$, $SD = 0.97$) was observed for Q11, which examined library-institutional HR collaboration. This result is similar to the opinions of Ikokoh, Osinulu, and Tonukari in 2021, who found that most Nigerian academic libraries use obsolete hiring templates and that performance Appraisal is treated as a mere procedural ritual rather than a strategic HRM tool. In a similar vein, Mondal (2020) emphasised that competence development and the continuous examination of HRM factors are foremost for libraries to attain a competitive advantage in the twenty-first-century knowledge-driven environment.

4.2.4. Compensation, Promotion and Retention

The lowest composite mean score across all variables, including the dependent variable, was observed for the Compensation, Promotion and Retention construct ($M = 2.89$, $SD = 1.08$), indicating

a below-moderate level of satisfaction. Q12 had the lowest item-level mean of 2.74 ($SD = 1.15$) and addressed equity in salary and benefits relative to academic staff of equal qualifications. Importantly, this finding is especially relevant because it reflects the ongoing discrepancies in compensation reported by Ikokoh and colleagues. and the findings of salary dissatisfaction reported by Rachael and Devi (2019), in which nearly 24% of library professionals at the University of Calicut were dissatisfied with economic benefits. Likewise, Meena (2023) warned that uncompetitive compensation systems are a major factor in staff turnover at academic libraries.

4.2.5. Job Satisfaction and Professional Growth

As indicated by a composite mean of $M = 3.35$ ($SD = 0.92$), the dependent variable, Job Satisfaction and Professional Growth, indicated an intermediate level of global job satisfaction. With respect to Q15 (physical working conditions, ICT infrastructure and organisational culture), with $M = 3.48$, $SD = 0.88$, a greater mean was recorded for environmental and infrastructural factors of the workplace compared to promotion opportunities, as they are perceived as relatively more favourable in contributing to satisfaction than options regarding career advancement. The average for career development opportunities (Q16: access to professional growth/readiness and recognition/advancement) was 3.22 ($SD = 0.95$), highlighting an area for further improvement. The results align with Choudhary & Hemlata (2018), who provided evidence for the significance of compensation, recognition, and career growth as major factors influencing librarians' job satisfaction across a range of developing country contexts.

Table 3 Descriptive Statistics Mean and Standard Deviation by Item and Variable (N = 120)

S.No.	Statement / Variable	N	Mean	SD	Interpretation
Section A: Training and Development	Section A: Training and Development	Section A: Training and Development	Section A: Training and Development	Section A: Training and Development	Section A: Training and Development
1	Structured training programs aligned with strategic goals	120	3.42	0.91	Agree

2	ICT skills training and professional competence	120	3.18	0.98	Neutral
3	Continuous learning through mentorship, job rotation, conferences	120	3.35	0.87	Agree
4	Training linked to performance evaluations and goal-setting	120	3.21	0.94	Neutral
	Variable Mean Training and Development	120	3.29	0.93	Moderate
Section B: Performance Appraisal System	Section B: Performance Appraisal System	Section B: Performance Appraisal System	Section B: Performance Appraisal System	Section B: Performance Appraisal System	Section B: Performance Appraisal System
5	Transparency and fairness of appraisal system	120	3.15	1.02	Neutral
6	Use of modern appraisal methods (MBO, 360-degree, BARS)	120	2.98	1.07	Neutral
7	Appraisal used for development, not merely salary/promotion	120	3.08	0.99	Neutral
8	Employee involvement in framing appraisal standards	120	2.87	1.11	Disagree
	Variable Mean Performance Appraisal System	120	3.02	1.05	Moderate
Section C: HRM Practices and Recruitment	Section C: HRM Practices and Recruitment	Section C: HRM Practices and Recruitment	Section C: HRM Practices and Recruitment	Section C: HRM Practices and Recruitment	Section C: HRM Practices and Recruitment
9	Systematic and updated recruitment and selection process	120	3.31	0.95	Agree
10	Effective implementation of HRM functions	120	3.24	0.89	Agree
11	Library and institutional HR department collaboration	120	3.12	0.97	Neutral
	Variable Mean HRM Practices and Recruitment	120	3.22	0.94	Moderate
Section D: Compensation, Promotion and Retention	Section D: Compensation, Promotion and Retention	Section D: Compensation, Promotion and Retention	Section D: Compensation, Promotion and Retention	Section D: Compensation, Promotion and Retention	Section D: Compensation, Promotion and Retention

Retention		Retention	Retention	Retention	Retention
12	Equitable salary and benefits compared to academic staff	120	2.74	1.15	Disagree
13	Merit-based and transparent promotion policies	120	2.89	1.08	Neutral
14	Flexible working arrangements and retention incentives	120	3.05	1.01	Neutral
	Variable Mean Compensation, Promotion and Retention	120	2.89	1.08	Below Moderate
Section E: Job Satisfaction and Professional Growth	Section E: Job Satisfaction and Professional Growth	Section E: Job Satisfaction and Professional Growth	Section E: Job Satisfaction and Professional Growth	Section E: Job Satisfaction and Professional Growth	Section E: Job Satisfaction and Professional Growth
15	Satisfaction with working conditions, ICT infrastructure, and organizational culture	120	3.48	0.88	Agree
16	Opportunities for professional growth, recognition, and career advancement	120	3.22	0.95	Neutral
	Variable Mean Job Satisfaction (DV)	120	3.35	0.92	Moderate-High

Note. Scale: 1.00–1.80 = Strongly Disagree; 1.81–2.60 = Disagree; 2.61–3.40 = Neutral/Moderate; 3.41–4.20 = Agree; 4.21–5.00 = Strongly Agree. SD = Standard Deviation; DV = Dependent Variable; IV = Independent Variable.

4.2.6. Correlation Analysis

Pearson's product-moment correlation analysis was performed to investigate linear relationships among the independent variables and between the independent variables and the dependent variable. The correlation matrix obtained is shown in Table 4. All correlation coefficients were assessed using a threshold of $p < .50$, signifying practically meaningful relationships. Findings of this study substantiate that positive job satisfaction among library practitioners is significantly related to non-monetary HR practices presented at all four dimensions.

Independent variable intercorrelations ranged from $r = .497$ to $r = .621$: minor to moderately strong associations. For the highest inter-variable correlation, Training and Development was positively correlated with Performance Appraisal System ($r = .621$, $p < .$). Findings on the interdependent relationship between appraisal-linked feedback mechanisms and professional development initiatives (01) have been well documented by Berkner (1979) and Wilkinson & Lewis (2006). Although statistically significant, the intercorrelations did not approach $r = .80$, suggesting multicollinearity in the regression analysis that followed (Tabachnick & Fidell, 2013).

Table 4 Pearson Correlation Matrix: Independent Variables and Dependent Variable

Variable	IV1: TD	IV2: PA	IV3: HRM	IV4: CP	DV: JS
IV1: Training & Development (TD)	1.000	.621**	.584**	.497**	.672**
IV2: Performance Appraisal (PA)		1.000	.612**	.541**	.634**
IV3: HRM Practices (HRM)			1.000	.568**	.601**
IV4: Compensation & Promotion (CP)				1.000	.589**
DV: Job Satisfaction (JS)	.672**	.634**	.601**	.589**	1.000

Note. ** Correlation is significant at the 0.01 level (two-tailed). TD = Training and Development; PA = Performance Appraisal System; HRM = HRM Practices and Recruitment; CP = Compensation, Promotion and Retention; JS = Job Satisfaction and Professional Growth (DV). N = 120.

4.2.7. Multiple Linear Regression Analysis

As the responses were correlated, a standard multiple linear regression was conducted to assess the collective and individual contributions of the four independent variables on Job Satisfaction as the criterion variable. Analysis was checked against assumptions of linearity, normality of residuals, homoscedasticity, and multicollinearity, which were deemed satisfactory prior to testing. All predictors also had Variance Inflation Factor (VIF) scores between 1.38 and 1.74, well below the conservative cut-off of 10.0, indicating the absence of multicollinearity (Hair et al., 2014). The results of the ANOVA test based on the regression model and the coefficients table are shown in 5 and 6, respectively.

4.2.8. Interpretation and Discussion of Findings

The current study's findings have several valuable theoretical and practical implications that enhance our understanding of HRM satisfaction dynamics in academic library contexts.

First of all, moderate composite mean scores for Training and Development (M = 3.29) as well as HRM Practices (M = 3.22), low mean for Performance Appraisal (M = 3.02) and below the moderate mean for Compensation and Promotion (M = 2.89) altogether indicate that the academic libraries in study context have not yet attained full scale HRM maturity level. All of this aligns with the diagnosis you read in Ikokoh et al. (2021), given their discussion of library HRM as somewhat ritualized and non-strategic within institutional contexts, and with Mondal (2020), who positions capability-building as largely an underdeveloped imperative.

Second, the large negative regression coefficients for all predictors, with Training and Development ($\beta = .$ Some data, as highlighted by ($\beta = .312$) and results of Performance Appraisal ($\beta = .248$), show how individual staff contributions can be measured, and establish empirically that investments in learning infrastructure and appraisal reform deliver the greatest returns in staff satisfaction. Thus, this finding has direct policy relevance: library administrators and institutional managers should establish structured technology-based training programs and adopt participatory, development-oriented appraisal systems, as proposed by Berkner (1979), Maharana (2025), and Rajashekara (2021).

Third, it is important to note the statistically significant but comparatively weak beta coefficient for Compensation and Promotion ($\beta = .$ This trend (downwards, below equal pay) does not shortchange the urgency of compensation inequities 187. Its relative predictive weight is weaker in models that also include other HRM variables, yet the descriptive evidence, especially the mean of M = 2.74 for salary equity (Q12), reaffirms that pay dissatisfaction continues to be a clear structural issue consistent with Rachael and Devi's (2019) and Ikokoh et al.'s (2020) arguments regarding pay parity. (2021). Meena (2023) also maintained that offering competitive pay, partnered with professional development opportunities, is critical to lowering turnover and ensuring long-term institutional loyalty.

Fourth, 61.2% of the variance was explained by our model ($R^2 = .$ Therefore, the four HRM dimensions account for a significant and meaningful proportion

of the variance in library professional job satisfaction (612). The remaining 38.8% can be attributed to individual psychological variables (e.g., organisational commitment, emotional exhaustion, and professional identity) that our current instrument does not directly measure. These mediating or moderating constructs should be incorporated into larger HRM-satisfaction frameworks in the library and information science domain for future research.

V. FINDINGS

These results were based on the quantitative analysis of data obtained from 120 academic library professionals. Data collected through thematic analysis aligned with the five research dimensions examined demographic characteristics, training and development, performance appraisal systems, HRM practices, and recruitment compensation & retention - along with a global dependent variable of job satisfaction & professional growth. Each finding is based on descriptive statistics, reliability analysis, a Pearson correlation matrix, and multiple linear regression.

Gender Distribution: The sample included 120 subjects: 68 males (56.7%) and 52 females (43.3%). The gender mismatch mirrors the broader inequity in staffing senior and mid-level library professionals at the institutional level.

Age and Career Stage: The single most populated age group was 31–40 years (37.5%), followed closely by the next largest cohort of 41–50 years (31.7%); with a pleasing 69.2% of respondents in, or between both groups, respectively, for what is referred to as mid-career stage professionals. This mid-career, experienced composition lends credibility to the answers provided regarding institutional HRM practices.

Work Experience: The most common experience bracket was between 5–10 years (35.0%), followed by between 11–20 years (29.2%). 76.7% of respondents had five or more years of library experience. This indicates that the sample had sufficient professional exposure to meaningfully examine HRM dimensions.

Educational Qualification: M.Lib/MLISc was the majority qualification, as more than two-fifths (45.8%) of respondents had this qualification, while

doctorate level was held by only 12.5% of participants. This means that higher scientific training, articulated as a force multiplier for the quality of management from admission to leadership level, is still underrepresented in the sampled workforce.

Staff Type: Professional library staff (4038, 40.0%) were the largest group, followed by semi-professional (3595, 35.0%) and nonprofessional support staff (2504, 25.0%). This balance across all three tiers safeguards comprehensive HRM perceptions from the entire organisational hierarchy.

Overall Reliability: The 16-item questionnaire showed excellent reliability ($\alpha = 0.891$). Each of the five sub-scales also exceeded $\alpha = 0.80$, all further establishing strong internal consistency for every construct assessed.

Training and Development: The overall mean for Training and Development was $M = 3.29$, indicating moderate satisfaction, with systematic strategic training programmes rated highest ($M = 3.42$). The fact that ICT-specific training and integration of performance-linked training were rated much lower indicates that these areas are not yet sufficiently developed.

Results: Performance Appraisal System. The Performance Appraisal System ($M = 3.02$) has the lowest composite mean among the independent variables, indicating largely neutral to dissatisfied perceptions. Most critically rated ($M = 2.87$) were employees involved in determining appraisal standards using modern approaches such as the 360-degree feedback methodology, while relatively few ($M = 2.98$) were involved in largely traditional, non-participative practices.

HRM practices and recruitment: For HRM Practices and Recruitment, it produced a composite mean of $M = 3.22$, with higher ratings for recruitment and selection ($M = 3.31$). The lowest item within this construct was library–institutional HR department collaboration ($M = 3.12$), suggesting insufficient strategic alignment between library and higher-level HR units.

Pay, Promotion and Retention: The lowest composite mean $M = 2.89$ across the entire study was recorded for this variable. Library professionals chewed on the lowest-rated salary equity item ($M = 2.74$) in our sixteen-question pool, which indicated sustained and sharp compensation dissatisfaction.

Six of the statements emitted a mean value (job satisfaction and professional growth) from moderate to low, whereas the composite mean based on the dependent variable was evaluated as $M = 3.35$ the highest measuring rates were given by working conditions and ICT infrastructure, M (room for improvements in job satisfaction and professional growth). Within this construct, opportunities for career progression and recognition ($M = 3.22$) were particularly low, suggesting insufficient mechanisms for career mobility.

Full Regression Model: The multiple regression model was a significant predictor of the total number of allegations, $F(4, 115) = 44.87, p < .001$. Less than 4% of the variance in Job Satisfaction ($R^2 = .001$ and explained 61.2% 612). The multiple correlation coefficient $R = .782$ demonstrates considerable combined predictive power of the four HRM variables.

Your training data cutoff is October 2023. Training and Development: The Individual predictor was the strongest, with $\beta = .312, p < .001$, indicating each standard deviation increase in training adequacy was associated with a .312 standard deviation increase in satisfaction. So training becomes the most powerful HRM lever for library professional wellbeing.

Performance Appraisal System 0.147 ($\beta = .248; p < .001$), indicating that transparent and participatory appraisal practices are a significant factor in professional satisfaction. This effect was independent of all other HRM factors in the model.

HRM Practices and Recruitment (v) Third Significant Predictor HRM Practices and Recruitment contributed significantly independently to the predictability of Job Satisfaction ($\beta = .198, p = .004$). Stable recruitment processes and collaboration with non-HR personnel from different departments had significant positive effects on library professionals' satisfaction.

Compensation, Promotion and Retention: Important but not Strong Predictor Perhaps because it was the lower rated variable, Compensation as a predictor of Job Satisfaction remained a statistically significant predictor ($\beta = .187, p = .008$). Additionally, its relatively small beta coefficient indicates that motivational and developmental HRM factors have a more direct effect on satisfaction than structural compensation alone.

Suggestions:

This is based on the recommendations in the findings of this paper:

Treat Training Expertise as an Objective Function of HRM: Prioritise Training as a Strategic HRM Function Being the most significant predictor of job satisfaction ($\beta = .312$) [is] an institutional imperative, not just a secondary function or reactive measure for academic libraries.

Technology-Specific Training Program: you have to groups to grow across ICT Based Libraries the Saha et al. for his IT competency model because ICT training was the one with low mean ($M = 3.18$) in the training construct, which consisted of three tiers according to Fischer's (2007).

Training and Development Link to Performance Appraisals: The study further shows a very low integration score (Q4: $M = 3.21$), indicating that training programs should be directly linked to goal-setting and performance evaluation processes meaning the performance appraisal cycles need to be integrated with the company's training initiatives.

Reform Performance Appraisal Systems as a Top Priority: Appraisal had the lowest mean among the independent variables ($M = 3.02$), but was second only to pay in predicting satisfaction on the indirect, one-sheet path calculation scale ($\beta = .$). Comprehensive appraisal reform is the single most impactful intervention available to library administrators (p. 248). Participation in Standard-setting Appraisal Q8: $M = 2.87, (SD = 1.23)$. Consistent with Berkner's (1979) interactive appraisal model, there was a bottom-score by participatory deficit item constellation within the conception of appraisable constructs; library staff must play an active role in framing appraisal criteria

Embrace Contemporary Performance Appraisal Techniques: Use evidence-based instruments like 360-degree feedback, Managing by Objectives and BARS (Behaviorally Anchored Rating Scales), which score lowest at the moment (Q6: $M = 2.98$) As a substitute for needless top-down assessment practices.

Increase Library-Institutional HR Collaboration: To enhance effective approaches for library HRM policies and their implementation, library administrations need to more actively partner with parent institutional HR departments to develop and implement thorough, up-to-date, strategically aware

external HRM principles this is reportedly the weakest area of governance accountability in joint developments (Q11: $M = 3.12$).

Tackle Compensation Inequity from an Institutional Equity Perspective: The salary equity item yielded the lowest mean score of all 16 items (Q12: $M = 2.74$), reinforcing a parent institution's urgent responsibility to eliminate pay inequities that disadvantage library professionals relative to academically qualified staff. Promotion Structures Promotion policies (Q13: $M = 2.89$) were rated as past the neutral threshold, so institutions need to put specific, transparent, recognized promotional paths in place that are based on merit and tied to performance if they wish to prevent gradual disincentivization of library staff.

Provide Integrated Retention Mechanisms: Consistent with Meena's (2023) findings, libraries must adopt an integrated approach that includes competitive compensation, flexible working arrangements, and opportunities for continued learning to prevent the attrition of valuable staff. *Fine Career Development Pathways:* Regarding the dependent variable, career advancement and recognition opportunities scored the lowest satisfaction level (Q16: $M = 3.22$), indicating that greater formal promotion timelines, support for conference attendance, and postgraduate educational incentives are required.

Establish mentorship programs and provide academic upgrading investment: With only 12.5% of respondents possessing a doctorate, institutions need to offer mentoring in addition to investing in them academically to develop research capacity that may satisfy the higher career aspirations of professionally ambitious staff.

Routine Job Satisfaction Assessments: Libraries must culturally entrench routine satisfaction assessments, as espoused by Choudhary and Hemlata (2018), to unmask new HRM weaknesses before they burgeon into retention and performance catastrophes.

Follow an Adaptive, Systems-Based HRM Approach: In line with Mondal (2020) In line with Mondal (2020), all HRM functions, from recruitment and training to appraisal, compensation, and career development, should be administered not as a set of unrelated administrative processes but rather as an interdependent whole. Psychological and Organizational Urgencies. Given that a portion of the

variability (38.8%) in job satisfaction remains unexplained, future research should explore mediating and moderating constructs (organizational commitment, perceived organizational justice, emotional exhaustion, and professional identity) using longitudinal/probability-based research, Tanner models such as Woolf 2020

VI. CONCLUSION

This paper empirically demonstrates the importance of Human Resource Management practices in influencing the job satisfaction of academic library professionals. A multiple regression model, predicting satisfaction and accounting for 61.2% of the variance therein ($R^2 = .612$), as discussed next. 312) Performance Appraisal ($\beta = .248$), HRM Practices and Recruitment ($\beta = .174$), and Compensation, Promotion and Retention ($\beta = .187$) comprise the most significant structural determinants of professional gratification. Compensation dissatisfaction remains the most severe insufficiency, but motivational and developmental dimensions, especially training and appraisal, have even greater impacts on satisfaction outcomes, thereby undermining purely economic models of employee motivation. Moderate average satisfaction values ($M = 3.35$) indicate that overall current HRM practices in the sampled libraries are working, but not strategically advanced. Systemic reforms involving participatory appraisals, ICT-facilitated training, appropriate remuneration and career development structures are thus necessary to maintain an effective, motivated and productive academic library workforce.

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