THE ROLE OF HUMAN RESOURCE MANAGEMENT PRACTICES IN SHAPING JOB PERFORMANCE OF LIBRARY PRACTITIONERS IN THE PRIVATE SECTOR UNIVERSITIES OF KHYBER PAKHTUNKHWA

[1]Ihsan Ullah Khan
[2]Dr. Saeed Ullah Jan

[1]*M.Ph.D. Scholar, Department of Library and Information Science, Khushal Khan Khattak University, Karak*
[2]*Assistant Professor, Department of Library and Information Science, Khushal Khan Khattak University, Karak*

[1]*ihsanpersonal87@gmail.com, [2]dr.saeedullah@kkkuk.edu.pk*

Abstract

This study examines the role of Human Resource Management (HRM) practices in shaping the job performance of library practitioners working in private sector universities of Khyber Pakhtunkhwa, Pakistan. Based on Ability, Motivation & Opportunity (AMO) framework, the study explores how recruitment and selection, training and development, performance management and appraisal, and job security influence employee performance. Using a quantitative research design, data were collected through a structured questionnaire from 21 library practitioners across private sector universities. The data were analysed using Structural Equation Modeling (SEM) via Smart PLS-4 to test the hypothesized relationships. Findings reveal that recruitment and selection, as well as job security, have significant positive effects on job performance, indicating that fair hiring processes and employment stability enhance employee motivation and productivity. Conversely, training and development and performance management & appraisal showed no significant relationship with job performance, suggesting deficiencies in training relevance and appraisal implementation within the studied institutions. The model explains 59.8% of the variance in job performance, reflecting moderate predictive power. The results highlight the need for private-sector universities to strengthen their HRM systems by institutionalizing structured training programs and transparent appraisal mechanisms. By aligning HRM practices with strategic objectives, universities can enhance the competencies, motivation, and commitment of their library staff, ultimately improving service quality and organizational effectiveness.

Keywords: HRM Practices, Job Performance, Library Practitioners, Recruitment & Selection, Training & Development, Performance Management, Job Security

INTRODUCTION

Human Resource Management (HRM) is the art of handling people as employees of the organization (Hamouche, 2023). It is the system of practices and policies for acquiring, developing, motivating, and retaining people to advance organizational goals. Recent field level reflections emphasize HRM as an ecosystem that must integrate sustainability, technology, and inclusion rather than a narrow set of administrative activities (Cooke, Dickmann, & Parry, 2023). Human Resource Management (HRM) practices play a pivotal role in the effectiveness and sustainability of library services. Libraries, whether academic, public, or special, are service-oriented institutions that depend heavily on human capital to deliver knowledge resources and information services to diverse communities. Effective HRM in libraries involves not only the recruitment and retention of qualified staff but also continuous training, performance management, and motivation strategies designed to align employee capabilities with institutional goals (Armstrong & Taylor, 2023; G. Dessler, 2020).Within higher education, university libraries are the intellectual backbone of academic institutions, supporting teaching, research, and learning through access to information resources and digital services. The effectiveness of these libraries depends largely on the performance of their library practitioners, information officers, and support staff, who bridge the gap between knowledge systems and users. Therefore, HRM practices such as recruitment and selection, training and development, performance appraisal, and job security play a decisive role in determining how effectively these practitioners contribute to institutional goals. In Pakistan, particularly in the province of Khyber Pakhtunkhwa (KP), the higher education landscape has expanded rapidly, with a growing number of private universities operating under the Higher Education Regulatory Authority (HERA). However, many private universities face persistent HRM challenges, including unstructured recruitment processes, limited professional development opportunities, inadequate performance evaluations, and job insecurity (Ahmad et al., 2023). These issues often lead to reduced motivation and productivity among library staff, which can negatively impact library service quality and user satisfaction. Thus, understanding how HRM practices shape the job performance of library practitioners in KP's private-sector universities is essential for improving institutional effectiveness and employee well-being.

Theoretically, this study is based on the Ability,Motivation,Opportunity (AMO) framework. The AMO framework posits that employees perform better when organizations enhance their abilities through targeted recruitment and training, motivate them through fair appraisal and job security, and provide opportunities to contribute meaningfully (Kaliannan et al., 2023). Empirical evidence supports that coherent HRM Practices; recruitment and selection, training and development, performance management, and job security collectively enhance employee commitment, engagement, and performance (Lopez-Cabrales & Valle-Cabrera, 2023). In the context of KP's private universities, where libraries play a pivotal role in supporting teaching and research, implementing these HRM practices is vital to strengthening workforce performance, promoting innovation, and achieving institutional excellence. Consequently, this study aims to examine the impact of these HRM dimensions on the job performance of library practitioners in private sector universities of Khyber Pakhtunkhwa.

HRM highlights the need to match the human capital to the goals of the organization, both in efficiency and employee welfare (Armstrong & Taylor, 2023). Efficient HRM makes sure that the right people are hired, trained and motivated to help make the

organization successful (Gary Dessler, 2020).HRM is the only managerial activity that focuses on staff issues by use of practices and policies (Pallis, 2019).

STATEMENT OF THE PROBLEM

Human resource management (HRM) practices are widely recognized as critical factors in enhancing employee performance and organizational success. In academic institutions, particularly universities, the effectiveness of HRM policies directly influences the productivity and professional growth of faculty and staff. However, library practitioners, who play a pivotal role in supporting teaching, learning, and research often remain underrepresented in studies that assess the impact of HRM practices on job performance.

In the context of Khyber Pakhtunkhwa, Pakistan, private universities have rapidly expanded over the past two decades to meet the growing demand for higher education. Despite this growth, the library sector in private universities faces multiple challenges, including inadequate professional development opportunities, limited recognition of librarians' roles, and inconsistencies in recruitment, performance appraisal, and compensation policies. These shortcomings may lead to reduced job satisfaction, lower motivation, and ultimately, poor job performance among library practitioners.While several studies in Pakistan and abroad have examined the relationship between HRM practices and employee performance in general, limited research has specifically focused on the library profession particularly in private universities of Khyber Pakhtunkhwa. This gap highlights the need to investigate how HRM practices such as recruitment and selection, training and development, performance management & appraisal and job security shape the performance of library practitioners in this region.

Therefore, this study seeks to address the problem by systematically analysing the role of HRM practices in shaping the job performance of library practitioners working in the private sector university libraries of Khyber Pakhtunkhwa. The findings are expected to provide valuable insights for university management, policymakers, and HR professionals to strengthen HRM strategies and improve the effectiveness of library services in higher education institutions.

OBJECTIVES OF THE STUDY

The prime objective of this study is to assess the impact of HRM practices on the job performance of library practitioners working in private sector university libraries of Khyber Pakhtunkhwa as the study area. Other specific objectives are:

1. To examine the impact of Recruitment & Selection on Job Performance of Library practitioners.
2. To examine the impact of Training & Development on Job Performance of Library Practitioners.
3. To examine the impact of Performance management & Appraisal on Job Performance of Library practitioners.
4. To examine the impact of Job security on Job Performance of Library practitioners

SIGNIFICANCE OF THE STUDY

The significance of this study lies in its contribution to understanding how human resource management (HRM) practices influence the job performance of library practitioners in the private university sector of Khyber Pakhtunkhwa, Pakistan. While HRM has been widely studied in various organizational contexts, limited attention has been given to its impact on the library profession, particularly within higher education institutions. This research will enrich the literature by providing empirical evidence on the relationship between HRM practices—such as recruitment and selection, training and

development, performance management and appraisal, and the Job performance of library staff. The findings are expected to guide private universities in formulating effective HRM policies that enhance staff productivity, service delivery, and the overall contribution of libraries to academic excellence. Moreover, the study will benefit library practitioners by emphasizing the importance of professional growth, fair appraisal, and motivational strategies in improving job satisfaction. At the policy level, the outcomes will offer valuable insights to higher education authorities and HR professionals in Pakistan for strengthening HR frameworks in university libraries, while also laying the foundation for future comparative research across public and private sectors.

LITERATURE REVIEW

Review of Literature is a comprehensive study of past research relating to a particular phenomenon. It is significant for many reasons; first and foremost, it compels a researcher to get maximum understanding related to a selected topic and attain conceptual clarity of issues inherent in the topic (Al-Barashdi & Al-Karousi, 2019). This enhances the learning process of the researcher and improves writing. This is because, the investigator knows about the different sources of the topic as well as any potential knowledge gaps that may appear to the researcher. Second, it reveals to readers that the researcher has enough understanding and knowledge about the study in hand, which establishes the reliability and integrity of both the researcher and the study in question (Noe, 2020).

Recruitment and Selection

Studies have shown that comprehensive recruitment and selection procedures can lead to the hiring of highly qualified and motivated library staff, who are more likely to contribute to improved library services and user satisfaction (Agarwal & Islam, 2015). Library staff skills and knowledge have been found to enhance their value to library users and enable them to adapt to technological advancements and changing user needs through continuous training and development opportunities (Shahzad & Khan, 2023).Recruitment and selection form the foundation of effective HRM, ensuring that organizations attract and hire individuals whose skills, experience, and attitudes align with institutional goals. According to Mathis and Jackson (2020), strategic recruitment not only fills vacancies but also builds human capital that directly influences organizational success. When employees are carefully selected based on job-related competencies and cultural fit, they exhibit higher engagement, commitment, and performance (Myszkowski et al., 2025). In academic library settings, fair and transparent recruitment processes ensure that librarians possess both technical and interpersonal competencies necessary to manage digital resources and user services effectively (Khan & Anwar, 2022). Conversely, poorly structured hiring practices can lead to skill mismatches, dissatisfaction, and reduced performance. Empirical findings from Nigerian and Pakistani university libraries confirm that merit-based recruitment enhances employee productivity and service quality (Nwankwo et al., 2022; Ghalib & Ullah, 2020). Therefore, effective recruitment and selection are expected to significantly improve the job performance of library practitioners.

H1: Recruitment and selection have a significant positive impact on the job performance of library practitioners.

Training and Development

Training is described as a sign to improve employees' superior abilities, perspectives, knowledge, and skills, which leads to productive performance (Laing, 2009).Enhancing one's employability to pursue a desired career is the process of career development (Adnyani & Dewi, 2019). Career development is about giving workers more responsibility

and acknowledging their efforts in addition to giving them the chance to pursue higher career paths (Afiyati, 2019).Any organization's success depends on its ability to develop its human resources, specifically in terms of training and career advancement (Agboola, Aremu, Eze, & Wahab, 2020).A key component that helps an employee reach their maximum potential is job satisfaction. It is linked to increased performance and productivity (Baba, 2020). Job satisfaction is the result of an individual's feelings regarding their work and the different facets of their job (Jin, Seo, & Shapiro, 2016).

Training and development (T&D) are widely recognized as key mechanisms for enhancing employee skills, knowledge, and motivation. In today's knowledge-intensive environment, ongoing professional development is critical for library staff to adapt to emerging technologies and changing user needs. Garavan et al. (2020) observed that organizations investing in employee development achieve higher productivity, innovation, and retention. Similarly, Ahmad et al. (2023) found that motivation and job satisfaction among librarians improve significantly when training opportunities are linked to professional growth. In the context of Pakistan, limited training budgets and lack of structured programs often hinder librarians' ability to perform optimally (Ullah et al., 2023). International studies affirm that continuous development initiatives not only enhance competencies but also increase job commitment and performance outcomes (Devi & Selvan, 2024; ICCEPH, 2025). The AMO framework supports this view, emphasizing that well-designed training improves the "ability" component of employee performance. Therefore, training and development are expected to exert a positive influence on librarians' job performance.

H2: Training and development have a significant positive impact on the job performance of library practitioners.

Performance Management and Appraisal

Performance Management (al., Mwanaongoro, Ondieki, & Development) is responsible for determining, assessing, and improving team and individual performance, as well as aligning that performance with the organization's strategic objectives (Brown, O'Kane, Mazumdar, & McCracken, 2019). The systematic process of enhancing individual and team performance within an organization is known as performance management (Tahiri, Kovaçi, & Krasniqi, 2020). Performance appraisal (PA) is widely used in organizations to measure and assess employee performance. It can also be helpful to preserve workforce skills and productivity. PA can be viewed as a competitive advantage over competitors since it can be an essential tool for inspiring workers and maximizing their job performance (Camilleri, 2021)

Performance management and appraisal systems are critical for aligning individual goals with institutional objectives and fostering continuous improvement. When performance evaluation is fair, transparent, and developmental, it enhances employee motivation, engagement, and productivity (Bhave et al., 2023). In academic libraries, performance appraisals are increasingly viewed not merely as administrative exercises but as tools for professional growth and accountability (University of Illinois Library HR, 2025). Empirical studies show that constructive feedback, clear performance indicators, and recognition improve employees' perceptions of fairness and commitment (Van Woerkom & Kroon, 2020; Onyango, 2025). Conversely, lack of feedback or biased evaluations can lead to frustration and turnover. Within the AMO framework, performance appraisal strengthens the motivation component by reinforcing desired behaviours and rewarding achievement. Research in library settings and other service sectors consistently finds that

effective appraisal systems lead to higher employee satisfaction and performance (Khan & Anwar, 2022; UGA Libraries, 2025). Hence, the following hypothesis is proposed:

H3: Performance management and appraisal have a significant positive impact on the job performance of library practitioners.

Job Security

Job security is the state in which an employee continues to work for the same company without experiencing any reduction in seniority, compensation, pension rights, or other benefits (Meltz, 1989; Yousef, 1998). Ensuring job security and providing supportive career advancement is imperative for employees to feel good about their jobs and have stable work (Majid & al., 2017).

Job security is a vital component of HRM that significantly influences employee morale and job performance. Employees who perceive their jobs as secure are more likely to demonstrate commitment, creativity, and productivity, whereas job insecurity often leads to stress, absenteeism, and low engagement (Cheng & Chan, 2023). The assurance of employment stability creates a sense of belonging and psychological safety, which motivates employees to invest effort in achieving organizational goals. Studies in university libraries in Africa and Asia found a positive relationship between job security and staff performance, indicating that stable employment enhances both service quality and innovation (Emekagbor & Mohammed, 2024; Ghalib & Ullah, 2020). In Pakistan's private universities, where contractual employment is common, job insecurity can undermine performance and retention. The motivation component of the AMO framework supports the view that secure employment environments foster higher performance by reducing anxiety and promoting engagement (Kaliannan et al., 2023). Hence, job security is expected to positively affect the job performance of library practitioners.

H4: Job security has a significant positive impact on the job performance of library practitioners.

Libraries should regularly evaluate the effectiveness of their HRM practices and make continuous improvements to enhance their impact on library performance. By effectively implementing strategic and comprehensive HRM practices, libraries can empower their workforce and achieve their missions of providing high-quality library services and supporting the academic (Asante & Ngulube, 2020)

THEORETICAL FRAMEWORK

The theoretical framework for this study is grounded in a theory: the Ability–Motivation–Opportunity (AMO) framework. This perspective explains how effective Human Resource Management (HRM) practices enhance employee job performance by developing competencies, stimulating motivation, and fostering conducive working conditions.

The AMO Model is a well-established paradigm in the field of Human Resource Management (HRM) that describes how particular HR practices contribute to the performance of employees and the effectiveness of organizations (Bos-Nehles, Townsend, Cafferkey, & Trullen, 2023). The concept proposes that employees perform at their highest level when they are equipped with the appropriate skills (Ability), when they are motivated to work effectively (Motivation), and when they are provided with the necessary conditions to utilize their skills (Opportunity) (Appelbaum, 2000).

Figure:1 AMO Model by (Appelbaum et al., 2000)

From this perspective, the integration of HRM practices such as selecting competent personnel, investing in continuous learning, and ensuring fair and secure employment helps universities build human capital that is both distinctive and strategically aligned with institutional goals. In academic libraries, where service quality depends heavily on professional expertise and commitment, these HRM investments translate directly into superior job performance and user satisfaction. In this context, recruitment and training represent the "ability" dimension, performance management and job security embody the "motivation" dimension, and overall HRM climate provides the "opportunity" for performance expression.

Based on these theoretical foundations and the reviewed literature, the hypothetical model proposes that Recruitment and Selection, Training and Development, Performance Management and Appraisal, and Job Security are the four independent HRM factors that influence the Job Performance of library practitioners. The model assumes that effective HRM practices enhance employees' abilities and motivation, which in turn lead to higher performance outcomes such as efficiency, quality of service, innovation, and user satisfaction.

HYPOTHETICAL MODEL

This study examines the influence of HRM practices on job performance of librarians through 01 dependent variable job performance of library practitioners and 04 independent variables Recruitment & Selection Practices, Training & Development Practices, Performance Management & Appraisal and Job Security.
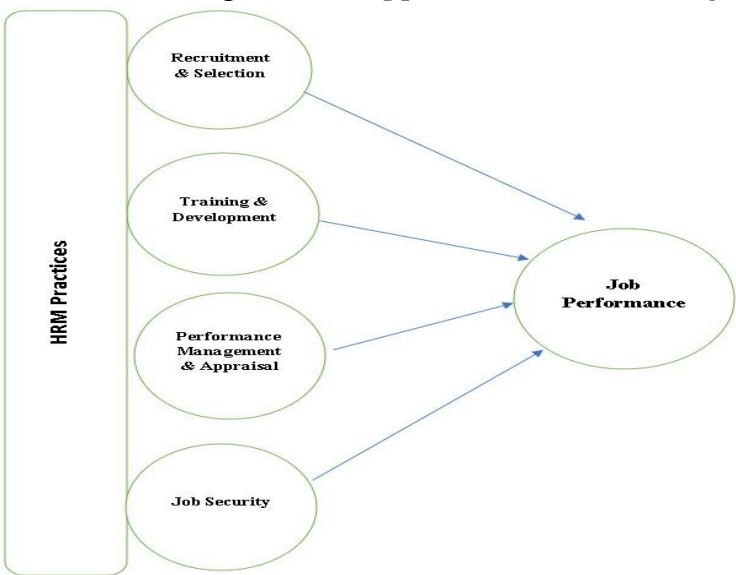

Figure 2: Hypothetical Model

HYPOTHESIS DEVELOPED

The above literature provides strong theoretical and empirical support for the proposed hypotheses (H1–H4). The Ability–Motivation–Opportunity (AMO) framework offers a coherent foundation, suggesting that HRM practices enhance performance through three interrelated pathways—building employees' abilities via recruitment and training, enhancing motivation through fair appraisal and job stability, and providing opportunities for contribution through participative management (Kaliannan et al., 2023). Likewise, the Resource-Based View (RBV) posits that employees' skills and commitment are valuable, rare, and inimitable resources that yield sustainable performance advantages (Nyberg & Wright, 2021; Barney, 2022). Integrating these theories, this study proposes that recruitment and selection, training and development, performance management, and job security are strategic HRM factors that collectively shape the job performance of library practitioners in private-sector universities of Khyber Pakhtunkhwa. These hypotheses set the foundation for the empirical testing of HRM–performance relationships in the following sections.

H-1: Recruitment and Selection Practices have a positive impact on the Job performance of Library Practitioners.

H-2: Training and Career Development have a positive impact on Job Performance of Library Practitioners

H-3: Performance Management and appraisal have a positive impact on job performance of Library Practitioners.

H-4 : Job Security has a positive influence on Library Practitioners' job performance.

RESEARCH METHODOLOGY

Quantitative approach describes the amount of data or information by measuring the quantity or number (Kothari, 2011). According to Rif, Lacy, and Fico (2014), p. 3, this approach is characterized as "the systematic communication of content into categories using statistical methods to test hypotheses" and entails an exact assessment of the objectives. To evaluate hypotheses and elucidate the associations among the variables, the study utilized quantitative research approach. The study covers all private sector universities of Khyber Pakhtunkhwa as mentioned in Table 1 (https://hed.gkp.pk/content/libraries) .This was a census-based study, so the researcher circulated the questionnaire using digital platform, among all the respondents (, resulting in 21 out of 26 responses being collected. Items on the questionnaire were not developed, rather adapted from those developed and used by researchers in their studies previously. The adapted items were scrutinized to ensure accuracy. In addition, reliability and validity were tested via Smar-PLS-4, to guarantee the reliability and accuracy of the responses. 5-point Likert scale was employed to gather the respondents' opinion the statements, which was easy to construct, scalable, and relatively reliable. 25 of the 30 items in the questionnaire pertain to RSP, TDP, PMA, JBS and JBP. In addition, 5 other items have been developed based on demographic information from the population. Use of descriptive statistics and Structural Equation Modeling (SEM), which encompasses the Partial Least Squares (PLS) approach, was implemented to analyse the collected data.

Table 1: *List of HEC Recognized Private Sector Universities of Khyber Pakhtunkhwa*

S.No.	Name of University	Main Campus	Website Address
1	Abasyn University, Peshawar	Peshawar	www.abasyn.edu.pk
2	CECOS University of Information Technology and Emerging Sciences, Peshawar	Peshawar	www.cecos.edu.pk
3	City University of Science and Information Technology, Peshawar	Peshawar	www.cityuniversity.edu.pk
4	Gandhara University, Peshawar	Peshawar	www.gandhara.edu.pk
5	Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Topi	Topi	www.giki.edu.pk
6	Iqra National University, Peshawar	Peshawar	www.iqrapsh.edu.pk
7	Northern University, Nowshera	Nowshera	www.northern.edu.pk
8	Preston University, Kohat	Kohat	www.preston.edu.pk
9	Qurtaba University of Science and Information Technology, D.I. Khan	D.I.Khan	www.qurtuba.edu.pk
10	Sarhad University of Science and Information Technology, Peshawar	Peshawar	www.suit.edu.pk

DATA ANALYSIS AND DISCUSSION

DEMOGRAPHICS

Table 2 shows the demographic analysis of all the library practitioners working in private sector university libraries in Khyber Pakhtunkhwa, Pakistan, participated in this study. It includes information about gender, age, qualification, designation and experience. The analysis indicates a workforce that is predominantly male (66.7 %), although a notable proportion of female professionals (33.3%) is also represented across various designations. In terms of age, respondents are distributed across various age groups, with a notable portion falling within the 31-40 years categories. Most of the groups representing 81 % holds BS-LIS/MLISc degree, 14.2 % of the group possesses MS/MPhil degree while 4.8 % having Ph.D degree. The majority serve as Assistant Librarians, while others hold senior posts such as Deputy Librarian, Chief Librarian and Classifier/Cataloguer, reflecting a diverse range of professional responsibilities. Professional experience varies widely, with many respondents possessing 16-20 years of service, complemented by substantial representation in the 11–15 years and less than 5 years while fewer are with 6-10 years and over 20 years of experience.

Table 2: *Demographic Analysis*

Variables	Categories	Frequency	percentage
Gender	Male	14	66.7
	Female	07	33.3
Age	21-30 years	01	4.8

	31-40 years	11	52.4
	41-50 years	04	19
	Over 50 years	05	23.8
Qualification	BS-LIS/MLISc	17	81
	MS/MPhil	03	14.2
	Ph.D	01	4.8
Designation	Classifier / Cataloguer	03	14.2
	Assistant Librarian	02	9.6
	Librarian	13	61.9
	Deputy Librarian	01	4.8
	Chief Librarian	02	9.5
Experience	Less than 5 years	05	23.8
	6-10 years	01	4.8
	11-15 years	05	23.8
	16-20 years	07	33.3
	Over 20 years	03	14.3

MEASUREMENT MODEL (MM)

CONVERGENT VALIDITY (CV)

Table 3 illustrates convergent validity, which evaluates how items and latent variables relate to one another. CV is evaluated using Cronbach's Alpha (CA), Rho, Composite Reliability (CR), and Average Variance Extract (AVE) tests. A model should only be used if its Cronbach's Alpha value is at least 0.7 (Zakria, Bhatti, Ahmad, & Jan, 2024). Additionally, the latent variables and the items were examined for discrepancies using AVE. The CA values of the variables in Table 1 satisfy the needed condition, as they exceed 0.7. The CR, on the other hand, also satisfies the necessary condition of having values higher than 0.7, while AVE values satisfy the criterion of 0.5 (Raza et al., 2020). Consequently, the values substantiate the convergent validity of the proposed model.

Table 3:   *Convergent Validity*

Construct	CA	Rho_A	CR	AVE
RSP	0.862	0.887	0.897	0.635
TDP	0.880	0.967	0.920	0.745
PMA	0.792	0.847	0.839	0.515
JBS	0.804	0.822	0.860	0.512
JBP	0.821	0.861	0.874	0.590

Note: RSP: Recruitment & Selection, TDP:Training & Development, PMA: Performance Management & Appraisal, JBS: Job Security JBP: Job Performance
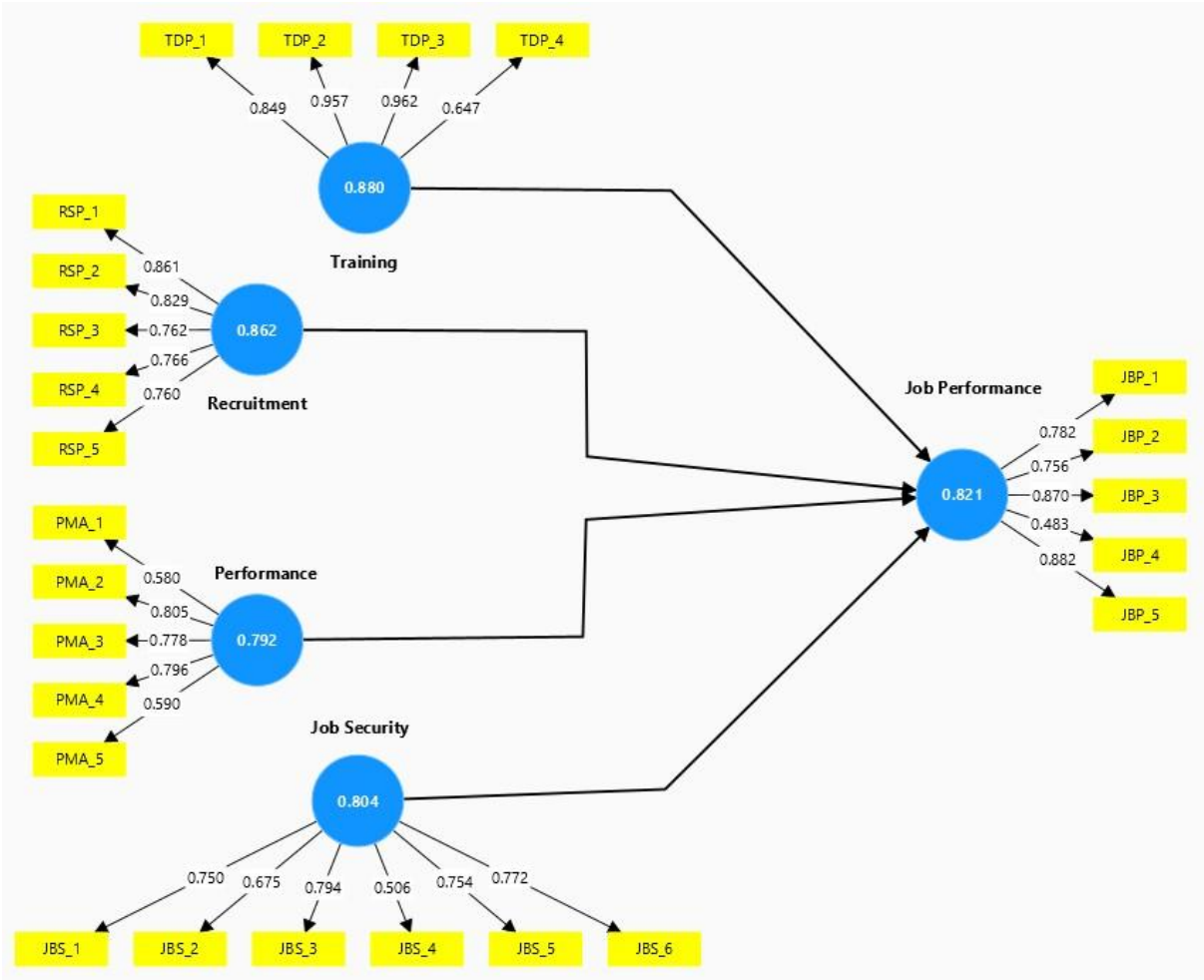
Figure 3: Measurement Model

DISCRIMINANT VALIDITY (DV)

Discriminant validity aims to analyse differences among the latent variables and their items. This subsection constitutes the second section of the measurement model, comprised of HTMT, Farnell and Larcker criteria, and cross-loading principles. For a construct to meet the criteria set forth by Farnell and Larcker (1981), its square root should exceed the correlation it has with the other constructs in the model.

Table 4 nillustrates that each diagonal value is the square root of AVE. This statistics satisfies the required criteria (Fornell & Larcker, 1981) as it is more significant than the correlation between the specified components.

Table 4:   *Fornell and Larcker Criterion*

Constructs	JBP	JBS	PMA	RSP	TDP
JBP	**0.768**				
JBS	0.748	**0.715**			
PMA	0.366	0.411	**0.717**		
RSP	0.338	0.181	0.267	**0.797**	
TDP	0.302	0.268	0.377	0.358	**0.863**

Note: Bold diagonal elements indicate the square root of the AVE.

Table 5 shows that each item and its corresponding determinant have a positive correlation. The predefined threshold of 0.1 (Raza and Hanif, 2013; Qazi et al., 2020) is less than the cross-loading difference.

Table 5:   *Cross Loading*

Variables	Items	RSP	TDP	PMA	JBS	JBP
Recruitment & Selection	RSP-1	0.861				
	RSP-2	0.829				
	RSP-3	0.762				
	RSP-4	0.766				
	RSP-5	0.760				
Training & Development	TDP-1		0.849			
	TDP-2		0.957			
	TDP-3		0.962			
	TDP-4		0.647			
Performance Management & Appraisal	PMA-1			0.580		
	PMA-2			0.805		
	PMA-3			0.778		
	PMA-4			0.796		
	PMA-5			0.590		
Job Security	JBS-1				0.750	
	JBS-2				0.675	
	JBS-3				0.794	
	JBS-4				0.506	
	JBS-5				0.754	
	JBS-6				0.772	
Job Performance	JBP-1					0.782
	JBP-2					0.756
	JBP-3					0.870
	JBP-4					0.483
	JBP-5					0.882

To conclude, Table 5's HTMT analysis is observable, and it meets the criterion that construct values must be less than 0.85 (Raza et al., 2020). The approved MM incorporates both CV and DV.

Table 6:   *Heterotrait and Monotrait (HTMT)*

Constructs	JBP	JBS	PMA	RSP	TDP
JBP					
JBS	0.877				
PMA	0.368	0.437			
RSP	0.381	0.274	0.415		
TDP	0.332	0.363	0.468	0.443	

STRUCTURAL MODEL AND TESTING OF HYPOTHESIS

Table 7 shows, bootstrapping was used to obtain path coefficients for the structural model. P-values and T-values were analysed in the table.

Table 7:   *Path Coefficient for Direct Effect*

Hypothesis	Path		T Values	P Values	Results
H1	RSP → JBP	0.196	3.098	0.002	Supported
H2	TDP → JBP	0.031	0.483	0.629	Not Supported

Policy Journal of Social Science Review

Online ISSN

Print ISSN

3006-4635

3006-4627

Vol. 3 No. 9 (2025)

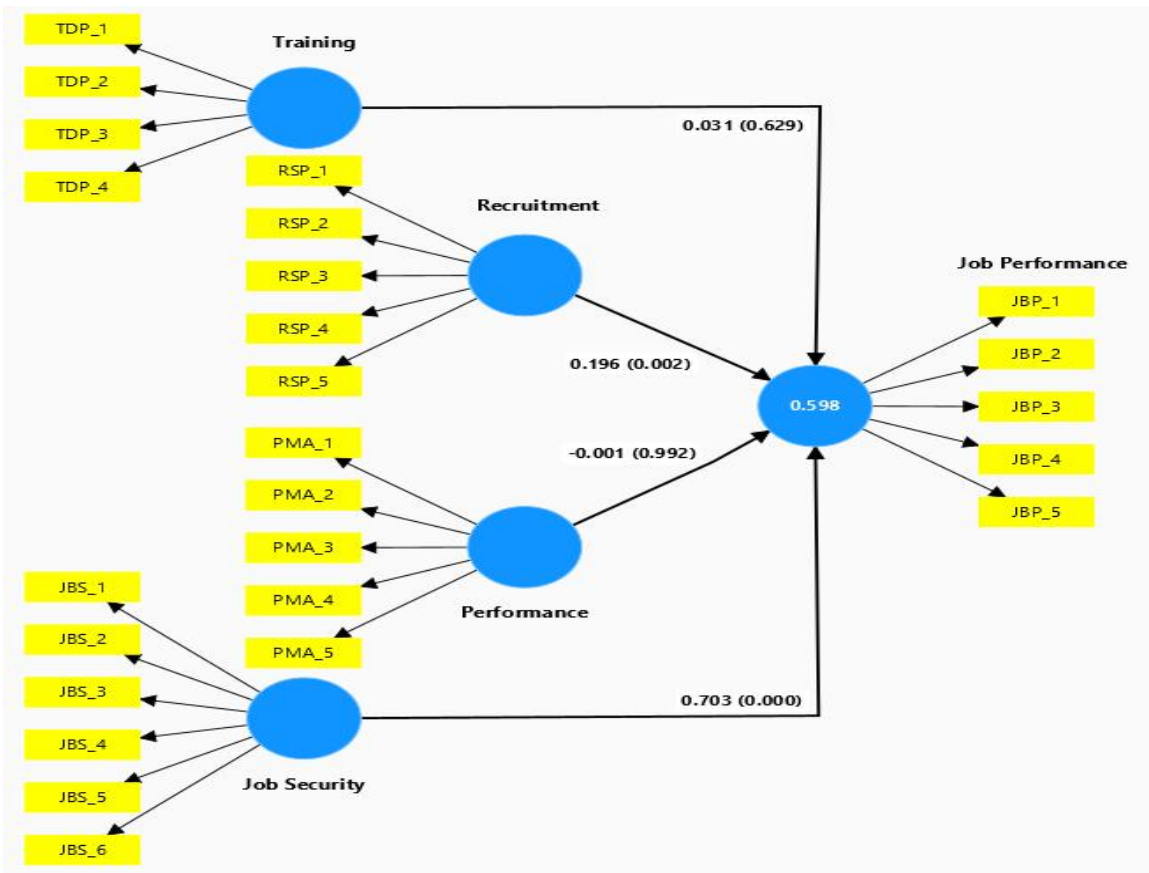| H3 | PMA→ JBP | -0.001 | 0.010 | 0.992 | Not Supported |
| H4 | JBS→ JBP | 0.703 | 10.036 | 0.000 | Supported |

*Note: Threshold values. "**p < 0.05, *T > 1.96"*

Figure: 4- Structural Model

Hypothesis H-1 & H-4

The table states that the T-values are 3.098 & 10.036 for the constructs RSP & JBS, respectively, are greater than 1.96, and the P-values are 0.002 & 0.000 for the same constructs, RSP & JBS, respectively are less than 0.05 at the 95 % significance level and found that the constructs RSP & JBS have a significant and statistically positive impact on JBP. Thus, H1 & H4 are supported.

Hypothesis H-2 & H3

TDP has a T-value of 0.483< 1.96 and a P-value of 0.629 > 0.05, highlighting that TDP has less impact on JBP at the 95% significant level. This indicates that TDP has no significant influence on JBP. So H2 is not supported. Similarly, PMA has T-Value of 0.010 < 1.96 and P-Value of 0.992 > 0.05 at the 95 % significance level which not fulfilling the required criterion, hence PMA has no significant and statistical influence on JBP. Thus, H3 is not supported.

The R² Value

The model explains 59.8 % of the variance in Job Performance (R^2 = 0.598; Adjusted R^2 = 0.583). According to Chin (1998) and Hair et al. (2011), this value indicates a moderate explanatory power of the exogenous constructs on Job Performance. The minimal disparity between R^2 and Adjusted R^2 indicates that the model is not experiencing overfitting,

thereby affirming that the predictors significantly aid in elucidating Job Performance. The structural model exhibits adequate predictive relevance for the Job Performance construct.

Table 8:   *R- Square Values*

Constructs	R Square	R Square Adjusted
Job Performance	0.598	0.583

DISCUSSION

This study explored the role of Human Resource Management (HRM) practices specifically Recruitment and Selection, Training and Development, Performance Management and Appraisal, and Job Security—in shaping the job performance of library practitioners in private-sector universities of Khyber Pakhtunkhwa. The findings revealed that Recruitment and Selection and Job Security have significant positive effects on job performance, whereas Training and Development and Performance Management and Appraisal did not show a statistically significant relationship. These results provide valuable insights into how HRM practices influence employee outcomes within the context of private higher education institutions in Pakistan, where formal HR systems are still developing.

The significant impact of Recruitment and Selection on job performance aligns with earlier studies emphasizing the importance of structured and merit-based hiring. Mathis and Jackson (2020) found that strategic recruitment practices enhance employee fit, engagement, and performance by ensuring that the right individuals are placed in the right roles. Similarly, Nwankwo et al. (2022) and Ghalib and Ullah (2020) reported that transparent recruitment processes in university libraries lead to higher productivity and improved service delivery. In the present study, the positive association between recruitment and performance suggests that fair selection criteria and competency-based hiring enhance librarians' ability and motivation to perform effectively. This outcome supports the Ability–Motivation–Opportunity (AMO) framework (Boxall & Purcell, 2003), which argues that performance improves when employees' skills and abilities are matched to organizational needs.

In contrast, the results revealed no significant relationship between Training and Development and job performance. This finding diverges from several previous studies that identified training as a key determinant of employee productivity and innovation (Garavan et al., 2020; Ahmad et al., 2023; Devi & Selvan, 2024). The absence of significance in the current study may indicate that training programs offered in private-sector universities are either insufficient, irregular, or poorly aligned with librarians' practical work needs. Ullah et al. (2023) noted similar issues in Pakistani universities, where training initiatives often lack relevance or follow-up, limiting their effectiveness. Within the AMO framework, this reflects a weakness in the "ability" component, suggesting that opportunities for skill enhancement are limited. Consequently, even when training is provided, it may not lead to meaningful improvements in performance unless it is well-structured, role-specific, and continuously supported by management.

The study also found that Performance Management and Appraisal did not have a significant impact on job performance. This result contrasts with the findings of Bhave et al. (2023), Van Woerkom and Kroon (2020), and Onyango (2025), who demonstrated that fair, transparent, and developmental appraisal systems increase employee motivation, commitment, and productivity. In the current study's context, the non-significant outcome may stem from inconsistent or non-standardized evaluation systems, where feedback is

infrequent and not linked to rewards or career growth. Camilleri (2021) emphasized that appraisals should not only assess performance but also serve as motivational tools that inspire learning and improvement. When employees perceive appraisal systems as biased or administrative, their motivational value diminishes. This finding suggests that private universities in Khyber Pakhtunkhwa may need to redesign their appraisal systems to promote accountability, fairness, and personal development rather than relying solely on annual performance reviews.

Conversely, Job Security emerged as a strong and positive predictor of job performance, aligning with the findings of Cheng and Chan (2023), Emekagbor and Mohammed (2024), and Ghalib and Ullah (2020), who concluded that stable employment enhances employee commitment, creativity, and productivity. In environments where contractual employment is common, job insecurity often leads to stress and disengagement. The current results confirm that when librarians perceive stability and long-term employment prospects, they are more likely to perform effectively and contribute to institutional goals. This supports the "motivation" component of the AMO model, which emphasizes that employees work harder when they feel valued and secure. It also aligns with the RBV theory's argument that retaining experienced and committed staff builds institutional knowledge and contributes to sustainable performance advantages.

Overall, the findings of this study provide partial support for the AMO framework. The significant relationships between Recruitment and Selection, Job Security, and Job Performance indicate that HRM practices enhancing employee ability and motivation are critical drivers of performance in academic libraries. However, the non-significant effects of Training and Development and Performance Appraisal highlight gaps in the current HRM systems of private universities, suggesting that these practices are not fully implemented or strategically integrated. The model's explanatory power ($R^2 = 0.598$) indicates a moderate ability to predict job performance, implying that HRM practices account for a substantial proportion of performance variation but that other factors such as leadership, organizational culture, or compensation may also play important roles. Collectively, these results underscore the need for a more strategic and holistic HRM approach in private-sector universities to enhance the capacity, motivation, and stability of their library workforce.

CONCLUSION

This study examined how Human Resource Management (HRM) practices Recruitment and Selection, Training and Development, Performance Management and Appraisal, and Job Security affect the job performance of library practitioners in private-sector universities of Khyber Pakhtunkhwa. The findings showed that Recruitment and Selection and Job Security significantly improve job performance, confirming that fair hiring processes and stable employment enhance motivation, commitment, and productivity. However, Training and Development and Performance Appraisal did not have significant effects, suggesting weaknesses in the implementation and relevance of these practices.

Overall, the study concludes that HRM practices in private universities are partially effective: recruitment and job stability are strong, but staff development and evaluation systems need improvement. Strengthening training programs, establishing fair appraisal mechanisms, and integrating HRM with institutional goals can help universities build a more skilled, motivated, and high-performing library workforce. These results support both the Ability–Motivation–Opportunity (AMO) framework.

RECOMMENDATIONS

1. Private universities should make their hiring practices fair, transparent, and merit based. Involving both HR experts and senior librarians in recruitment and clearly defining job roles will help attract the right people.
2. Training programs should be regular, practical, and relevant to librarians' work especially in digital resources and research support. Follow-up evaluations should be built to ensure that training improves performance.
3. Performance appraisals also need to move beyond formality; they should be open, developmental, and linked to feedback, recognition, and promotion opportunities.
4. Strengthening job security through longer contracts, fair benefits, and clear career paths will increase motivation and commitment.
5. HR policies should be integrated with the university's broader strategy so that staff development directly supports academic and service goals. A positive work environment that values teamwork, respect, and recognition will further enhance morale and performance.

FUTURE RESEARCH DIRECTIONS

For future research, studies should include larger and more diverse samples from both public and private universities to compare HRM practices across sectors. Researchers could also explore other factors that affect job performance, such as leadership style, organizational culture, and employee motivation. Using qualitative methods like interviews or focus groups could provide deeper insights as to how HRM policies are perceived and experienced by library staff.

REFERENCES

Abdel-Nour, N., et al. (2009). Combined maximum R^2 and partial least squares method for wavelengths selection and analysis of spectroscopic data. *International Journal of poultry science, 8*(2), 170–178.

Abdi, H., & Williams, L. J. (2013). Partial least squares methods: Partial least squares correlation and partial least squares regression. In *Computational Toxicology* (pp. 549–579). Springer.

Abeguki, O.-O. E., et al. (2014). Strategic role of human resource training and development on organizational effectiveness in Nigerian banking industries. *Global Journal of Human Resource Management, 2*(4), 24–39.

Adenuga, O. A. (2015). Impact of employees' training and development on organisational performance of First Bank, Nigeria Plc. *NOUN Journal of Management and International Development,2015.*

Agarwal, N. K., & Islam, M. A. (2015). Knowledge retention and transfer: How libraries manage employees leaving and joining. *Vine: Science and Research on Information and Knowledge Management, 45*(2), 150–171. https://doi.org/10.1108/VINE-06-2014-0042

Agboola, O., et al. (2020). Effect of training and career development on bank employees' performance: Evidence from selected banks in Nigeria. *Emerging Markets Journal, 10*(2), 56–62.

Aguinis, H. (2023). Performance management. *Sage Publications.*

Ahmed, A., et al. (2010). Performance appraisals impact on attitudinal outcomes and organisational performance. *International Journal of Business and Management, 5*(10), 62.

Ahmed, S. H., & Suliman, S. M. (2020). A structural equation model of indicators driving BIM adoption in the Bahraini construction industry. *Construction Innovation, 20*(1), 61–78.

Al-Wahshi, A. H. M., & Hameed, A. (2020). The impact of human resource management practices on employee satisfaction in public universities: A case study of the United Arab Emirates University (PhD thesis). United Arab Emirates University.

Al Nahyan, M. T., Al Ahbabi, J. M., Alabdulrahman, M. A., Alhosani, I., Jabeen, F., & Farouk, S. (2024). Employee job security and job performance: the mediating role of well-being and the moderating role of perceived organizational support and psychological capital. *European Journal of Management and Business Economics*.

Ameen, K., & Rafiq, M. (2021). Human resource management in university libraries: Trends and practices. *Library Management, 42*(44/45), 241–253. https://doi.org/10.1108/LM-07-2020-0101

Amin, M., et al. (2014). The impact of human resource management practices on performance: Evidence from a public university. *The TQM Journal, 26*(2), 125–142.

Anwara, M. U., Kassimb, M. S. B., & Shahrin, E. (2020). The Impact of Perceived Job Security on the Relationship between High Performance Human Resource Practices and Employee Performance in the Banking Sector in Pakistan. *International Journal of Innovation, Creativity and Change,11(12)*.

Anyim, F. C., et al. (2012). The role of human resource planning in recruitment and selection process. *British Journal of Humanities and Social Sciences,, 6*(2), 68–78.

Anyim, W. O. (2020). Performance management approaches for effective service delivery in federal university libraries in South-east, Nigeria. *Library Philosophy and Practice (e-journal),* Article 4169. https://digitalcommons.unl.edu/libphilprac/4169

Aragón, M. I. B., et al. (2014). Training and performance: The mediating role of organizational learning. *BRQ business research quarterly, 17*(3), 161–173.

Arif, M. I., & Hasan, A. (2013). HRM practices in public and private universities of Pakistan. Paper presented at the 3rd International Conference on Business Management.

Armstrong, M., & Taylor, S. (2020). *Armstrong's handbook of human resource management practice: A guide to the theory and practice of people management* (15th ed.). Kogan Page.

Arokiasamy, L., et al. (2024). Role of HRM practices in organization performance. *International Journal of Sociotechnology and Knowledge Development, 16*, 1–32. https://doi.org/10.4018/IJSKD.334555

Arooj, A., et al. (2022). Big data processing and analysis in Internet of Vehicles: Architecture, taxonomy, and open research challenges. *Archives of Computational Methods in Engineering, 29*(2), 793–829.

Arulsamy, A., et al. (2023). Employee training and development enhancing employee performance–A study. *Samdarshi,16*(3), 1–11.

Azmi, N. A. H. M., et al. (2024). Human resource management practices and job performance: A study of Malaysian academic libraries. *Journal of Technology Management and Business, 11*(2), 170–183.

Baba, M. M. (2020). Measuring human resource management practices and job satisfaction of librarians in Jammu & Kashmir. *Library Philosophy and Practice,* Article 3879, 1–14.

Bakhashwain, S. A., & Javed, U. (2021). The impact of recruitment and selection practices on employee performance. *PalArch's Journal of Archaeology of Egypt/Egyptology],* *18*(14).

Bell, E., et al. (2022). *Business research methods.* Oxford University Press.

Bhattacherjee, A. (2012). *Social science research: Principles, methods, and practices.* University of South Florida.

Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: a primer. *Frontiers in public health, 6,* 149.

Bos-Nehles, A., et al. (2023). Examining the Ability, Motivation and Opportunity (AMO) framework in HRM research: Conceptualization, measurement and interactions. *International Journal of Management Reviews, 25*(4), 725–739.

Bowen, N. K., & Guo, S. (2011). *Structural equation modeling.* Oxford University Press.

Brewster, C. (2007). Comparative HRM: European views and perspectives. *International Journal of Human Resource Management, 18*(5), 769–787.

Camilleri, M. A. (2021). Using the balanced scorecard as a performance management tool in higher education. *Management in Education, 35*(1), 10–21.

Camilleri, M. A., & Camilleri, A. (2018). The performance management and appraisal in higher education. In C. Cooper (Ed.), *Driving productivity in uncertain and challenging times* (paper presented at British Academy of Management).

Chaudhry, A. A., et al. (2021). Impact of human resource practices on job performance of librarians: Evidence from Lahore universities. *Library Philosophy and Practice,* 1–15. https://digitalcommons.unl.edu/libphilprac/5579

Chaudhry, M. S., et al. (2021). Impact of workplace environment on performance in university libraries of Lahore, Pakistan. *Library Philosophy and Practice.*

Chen, Y.-L., & Chen, S.-J. (2023). Looking at both sides of high-performance work systems and individual performance: A job demands–resources model. *Journal of Management & Organization, 29*(5), 872–892.

Cherif, F. (2020). The role of human resource management practices and employee job satisfaction in predicting organizational commitment in Saudi Arabian banking sector. *International Journal of Sociology and Social Policy, 40*(7/8), 529–541.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Psychology Press.

Colombo, Emilio, and Luca Stanca. "The effect of training on productivity: evidence from a large panel of firms." *Università Bicocca WP* (2008).

Cresswell, J. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Creswell, J. D., et al. (2012). Mindfulness-based stress reduction training reduces loneliness and pro-inflammatory gene expression in older adults: A small randomized controlled trial. *Brain, Behavior, and Immunity, 26*(7), 1095–1101.

Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research.* SAGE Publications.

Daoanis, L. E. (2012). Performance appraisal system: Its implication to employee performance. *International Journal of Economics and Management Sciences, 2*(3), 55–62.

Demekaa, B., et al. (2024). Effect of job security and job performance of library staff in the public university libraries in the North-Central Zone of Nigeria. *Information Technologist, 21(1).*

DeNisi, A. S., & Murphy, K. R. (2017). Performance appraisal and performance management: 100 years of progress? *Annual Review of Organizational Psychology and Organizational Behavior, 4*(1), 421–447.

DeNisi, A. S., & Pritchard, R. D. (2006). Performance appraisal, performance management and improving individual performance: A motivational framework. *Management and Organization Review, 2*(2), 253–277.

Dessler, G. (2020). *Human resource management* (16th ed.). Pearson.

Ekwoaba, J. O., et al. (2015). The impact of recruitment and selection criteria on organizational performance.

Engetou, E. (2017). The impact of training and development on organizational performance

Eruvwe, U., & Omekwu, C. O. (2020). Screening, interviews, selection processes and its effect on job performance of librarians in federal university libraries in South-South, Nigeria. *Nigeria. Librar & Philosophy Practice.*

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Fox, J. (2006). Structural equation modeling with the sem package in R. *Journal of Statistical Software, 13*(3), 465–486.

Gajdzik, B., et al. (2021). A theoretical framework for industry 4.0 and its implementation with selected practical schedules. *Energies, 14*(4), 940.

Gefen, D., Straub, D., & Boudreau, M. C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the association for information systems, 4*(1), 7.

Geoffrey, M., et al. (2005). *Essentials of research design and methodology.* John Wiley & Sons.

Goswami, A. (2018). Human resource management and its importance for today's organizations. *Journal of Advances and Scholarly Researches in Allied Education, 15*(3), 128–135.

Hair, J. F. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM).* SAGE.

Hair, J. F., Jr., et al. (2023). *Advanced issues in partial least squares structural equation modeling.* SAGE Publications.

Hair, J. F., Jr., et al. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook.* Springer Nature.

Harky, Y. F. M. (2018). The significance of recruitment and selection on organizational performance: The case of private owned organizations in Erbil, North of Iraq.*Growth, 8,* 2015–2016.

Hur, H. (2022). Job security matters: A systematic review and meta-analysis of the relationship between job security and work attitudes. *Journal of Management & Organization, 28*(5), 925-955.

Hussain, A., & Jan, S. U. (2021). University libraries ranking in Khyber Pakhtunkhwa Pakistan: A proposal. *[Report — 1–19].*

Hussain, S. (2016). Impact of transparent and merit-based recruitment on employee performance. *International Journal of Academic Research in Business and Social Sciences, 6*(7), 108–116. https://doi.org/10.6007/IJARBSS/v6-i7/2247

Ikokoh, C. E., et al. (2021). Human resource management practices in academic libraries: Issues and challenges. *Human Resource Management, 16*(3).

Ikonne, C. N. (2015). Influence of performance appraisal on job performance of library employees in selected university library and information centres in South-West Nigeria. *International Journal of Innovation and Applied Studies,11*(4), 863.

Imran, M., & Tanveer, A. (2015). Impact of training & development on employees' performance in banks of Pakistan. *European journal of training and development studies, 3*(1), 22–44.

Israel, T., & Harcourt, P. (2015). Job security and disciplinary measures as determinants of job performance of librarians in academic libraries in South-East Nigeria. *Intercontinental Academic Journal of Library and Information Science.*

Israel, T. M., & Udoh, U. O. (2015). Job security and disciplinary measures as determinants of job performance of librarians in academic libraries in South-East Nigeria. *Intercontinental Academic Journal of Library and Information Science.*

Izah, M. (2020). Recruitment and selection of library staff in federal university libraries in Nigeria.

Jan, S. U., et al. (2023). Factors affecting human resource management practice in university libraries: A Pakistani perspective. *Sarhad Journal of Management Sciences, 9*(2).

Jehanzeb, K., & Bashir, N. A. (2013). Training and development program and its benefits to employee and organization: A conceptual study. *European Journal of business and management, 5*(2).

Karia, A. O., et al. (2016). Impact of recruitment and selection on performance of the public water utilities in Tanzania. *African Journal of Education and Human Development, 2*(1), 39–45.

Khan, & Bhatti, R. (2017). Human resource management practices and organizational performance in university libraries of Pakistan. *Library Philosophy and Practice*, 1–17.

Khan, R., et al. (2020). The effect of training and development on employee performance in university libraries of Pakistan. *Pakistan Journal of Information Management & Libraries, 21*(22), 45–57.

Khan, Z. (2017). Impact of performance appraisal on employee's performance including the moderating role of motivation: A survey of commercial banks in Dera Ismail Khan, Khyber Pakhtunkhwa, Pakistan.*Universal journal of industrial and business management, 5*(1), 1–9.

Komendat, N., & Didona, T. (2016). Performance evaluations and employee's perception of job security. *International Journal of Scientific and Research Publications, 6*(1), 646–649.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Kramar, R., & De Cieri, H. (2011). *Human resource management in Australia: Strategy, people, performance*. McGraw-Hill.

Kratochwill, T. R., et al. (2023). Single-case intervention research design standards: Additional proposed upgrades and future directions. *Journal of school psychology, 97*, 192–216.

Lowe, N. K. (2019). What is a pilot study? *Research in Nursing & Health, 48*(2), 117–118.

Mehmood, M., et al. (2017). The impact of human resource management practices on organizational performance. *International Journal of Engineering and Information Systems, 1*(9), 165–178.

Mondal, H. (2020). Human resource management and its aspects in libraries. *A Multidisciplinary Journal, 1*(2), 134–141.

Oaya, Z. C. T., Ogbu, J., & Remilekun, G. (2017). Impact of recruitment and selection strategy on employees performance: A study of three selected manufacturing companies in Nigeria. *International Journal of Innovation and Economic Development, 3*(3), 32-42.

Ogunleye, P., et al. (2015). Training and development: Managerial tools for organizational performance. *Training and development, 5*(3)

Okoye, B., et al. (2019). Influence of performance appraisal on job performance of librarians in academic libraries in South-east, Nigeria. *Journal of Applied Information Science and Technology, 12*(1), 29–38.

Osei, B., & Ackah, D. (2015). Employee recruitment and selection practices in the construction industry in Ghana. *Global Journal of Human Resource Management,*

Osiesi, M. P., et al. (2022). An assessment of the impact of professional development and training on job performance of library staff in Federal University Oye Ekiti libraries, Nigeria. *Library Management, 43*(3/4), 228–239.

Owusu-Ansah, & Ashirifia, F. (2014). Performance appraisal as a tool for enhancing productivity in the Kumasi Polytechnic Library in Ghana. *Journal of Education and Practice, 5*(6), 16–22. https://www.iiste.org/Journals/index.php/JEP/article/view/11058

Owusu-Ansah, S., & Gogo, G. (2014). Effect of performance appraisal system on staff performance in Ghanaian academic libraries. *Journal of Information Engineering and Applications.*

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.

Salome, E. N., & Rotimi, O. (2013). Implications of training and development programmes on accountants' productivity in selected business organizations in Onitsha, Anambra State, Nigeria. *International journal of Asian social science, 3*(1), 266–281.

Sarstedt, M., et al. (2021). Partial least squares structural equation modeling. In *Handbook of Market Research* (pp. 587–632). Springer.

Shen, J., & Edwards, V. (2020). Recruitment and selection in Chinese MNEs. In *Human Resource Management in China Revisited* (pp. 198–219). Routledge.

Simamora, G. A., et al. (2025). The effect of training and employee engagement on librarian performance at the University of North Sumatra Library. *SAJMR: Southeast Asian Journal of Management and Research, 3*(4), 50–66.

Tharenou, P., et al. (2007). A review and critique of research on training and organizational-level outcomes. *Human Resource Management Review, 17*(3), 251–273.

Warraich, N. F., & Ameen, K. (2015). Human resource management in Pakistani university libraries: Managers' viewpoint. Paper presented at the International Conference on Studies in Humanities and Social Sciences (ICSHSS'15), Phuket, Thailand.

Yousif, M., & Rasool, H. (2021). The role of job security on employee performance and satisfaction at OGDCL Pakistan.

Zeka, K., et al. (2020). Activity of antioxidants from *Crocus sativus* L. petals: Potential preventive effects towards cardiovascular system. *Antioxidants, 9*(11), 1102.