



The Impact of Current Academic Knowledge on Modern Human Resource Practitioners' Performance Within the Software Industry of Pakistan- Future of Hr Work & The Need to Reskill

Jasim Tariq^{*1}, Syeda Huma Shirazi²

^{1*} Assistant Professor, Department of Business Administration, Iqra University, Islamabad, Pakistan.

² Department of Business Administration, Iqra University, Islamabad, Pakistan.

Corresponding author: jasimtariq@iqraisb.edu.pk

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This dissertation analyzes the effect of the latest human resource (HR) practices on the effectiveness of current HR managers' performance in the software industry of Pakistan. The quality HR practices examined include technical recruitment and selection, HR technology, HR marketing, dynamic workforce and performance management, psychology and stress management, green HRM and workplace spirituality, celebration and recognition management, and strategic HR partnership and organizational development. A structured questionnaire was employed as the data collection instrument. A sample of 120 employees from various software companies' HR departments in Pakistan was surveyed. The data were analyzed using multiple regressions, Cronbach's alpha, and demographic and descriptive statistics, utilizing the statistical software SPSS. This study highlights the importance of redesigning the current HR knowledge model with modern HR aspects to address the challenges faced by HR students in their professional lives. Recommendations for enhancing professional performance in the HR sector are provided. Additionally, this research will benefit selected software service sector companies operating in developing countries like Pakistan, emphasizing the significance of the service industry. The outcomes will be useful for academicians, researchers, HR practitioners, planners, and policymakers involved in this area.

1. Introduction

The novel coronavirus (COVID-19) pandemic has significantly disrupted businesses worldwide, bringing unprecedented chaos. The global restrictions on travel and gatherings forced a shift toward digitalization as a temporary measure until the pandemic subsided (National Command and Operation Centre (NCOC), 2021; Gwee, 2021). This profound impact introduced a “new norm” that quickly dismantled pre-existing global business practices, making technology essential for operations. The traditional on-site work model transitioned to teleworking, remote, hybrid, and flexible working arrangements (Sava, 2023), unlocking new opportunities for the future of work. This global upheaval has underscored the importance of human resource management (HRM) more than ever.

The software industry has also experienced remarkable changes in recent decades. While many sectors were adversely affected by COVID-19, the IT sector thrived during this “new norm,” with numerous startups emerging in Pakistan (Younus, 2022). This surge increased the demand for tech-savvy HR professionals, as managing both remote and in-house teams became increasingly challenging. The crisis positioned HR professionals as vital leaders, enabling them to foster employee-corporate synergy in response to the pandemic's consequences. However, this rapid shift forced HR professionals not only to adapt to change but also to challenge outdated operational models and reconstruct their futures to achieve organizational goals by addressing existing deficiencies.

Academic studies provide foundational knowledge of theoretical HR practices that positively influence employees and organizations. Over the decades, scholars have explored the relationship between HR and various organizational aspects, such as job satisfaction, employee-employer relations, employee commitment and retention, employee behavior, and overall organizational productivity. However, few have attempted to bridge the gap between theory and practice. Consequently, there remain significant discrepancies between academic teachings and contemporary practices, as HRM has evolved beyond merely enforcing rules and evaluating performance and job satisfaction. This gap has become even more pronounced in the wake of the pandemic.

The reality is that HR students often memorize recruitment and motivational concepts without acquiring practical skills. They struggle to post job listings on platforms or conduct remote and on-site interviews due to limited knowledge of essential technology. Current theories do not adequately address the technical, psychological, behavioral, branding, marketing, and strategic aspects required to manage in-house, remote, hybrid, and flexible workforces. Moreover, they lack the tools to navigate complex internal and external psychological issues, negotiations, and conflict resolution. There is a deficit in business acumen, as well as in the ability to identify new marketing and branding opportunities for employee and organizational development, which hinders effective communication with senior management.



The next era of business will involve a complete transition to technology-oriented practices (Alphavima, 2022). There is a growing demand for tech-savvy HR professionals in this emerging landscape. The industry requires HR leaders to possess a combination of technical, psychological, behavioral, branding, and marketing skills. Academics and researchers should prioritize modern practical aspects to encompass the entirety of this field. This necessitates a redesign of academic systems that allows newcomers to grasp the true essence of HR by considering all relevant domains. A tech-oriented HR theoretical foundation will enable students to play a significant role in enhancing HRM practices and becoming key partners in organizational productivity.

2. Theoretical Background and Hypothesis Development

Human resource (HR) has long been included in educational curricula; however, it remains one of the most nebulously defined terms. Scholars have made efforts for qualitative analysis; however, quantitative research remains scant, often producing abstract and insignificant results (Rynes, 2007). Therefore, a review of the literature has been conducted to identify the gaps requiring significant attention within the HR spectrum. The study also proposes measures to address these gaps and offers recommendations to mitigate them.

Technology has transformed the world of work (Profiles Asia Pacific, 2017; Agarwal et al., 2018), including HRM. The COVID-19 pandemic, characterized by heterogeneity and digitalization, has challenged old biases and facilitated the acceptance of new practices globally (Joshi & Kulkarni, 2022). This shift has necessitated modern HR to move away from primitive manual routines toward technology-centric solutions. As Black (n.d.) noted in 2020, the evolution of artificial intelligence (AI) is becoming indispensable in HR talent acquisition. AI has initiated the development of digital recruiting models 1.0, 2.0, 3.0, and 4.0, automating screening and diversifying recruitment processes (Buckley et al., 2004; Boris, 2019). This shift has led to significant time and cost savings through e-interviews (Suen, Chen, & Lu, 2019). Additionally, the post-COVID technology boom has seen over 300 tech startups develop AI tools for HR functions and attract venture capital (McCarthy & Tiwari, 2020). For example, Beamery raised \$800 million (Lunden, 2021), Eightfold was valued at \$2.1 billion (Singh, 2021), and Phenom secured \$1 billion (Kelly, 2021). These developments represent the rising integration of AI in HR, leading to advancements in mobile applications, e-recruitment, data mining, social, mobile, analytics, cloud computing, and e-training (Johnson et al., 2015).

Innovative solutions like Slack for organization-wide communication, Profit.co for task and employee engagement, Hirebook for check-ins and performance management, Zenefit for payroll and benefits, and AgileHR for applicant tracking systems have enhanced research and assessment (Software Advice, 2023). They allow organizations to gauge job tasks and impacts (e.g., cost per hire), conduct analytics (e.g., market trends), and support personnel structuring, employee qualifications, health safety, and social employment support systems (Boudreau & Cascio, 2017; Daft, 2019). Moreover, the trend of analytics is increasingly being utilized in performance management (Claudio, 2019; Callen, 2021; Cascio, 2019; Boudreau & Cascio, 2017;



Bock, 2015), enhancing the quality of HR evaluation methods (Biro, 2016) and improving the efficiency of employee selection and management systems.

The ongoing transition in response to post-acute COVID-19 syndrome and digitization broadens the global job description of HR professionals by introducing new responsibilities. HR and marketing, once distinct fields, are now increasingly intertwined. HR-centric marketing encompasses promotions related to recruitment, onboarding, employee appreciation, HR policies, salary increases, and other incentives aimed at generating positive word-of-mouth within organizations and society. This approach fosters internal marketing (Kadic-Maglajlic, Boso, & Micevskic, 2018), enhancing employee loyalty and creating a favorable public image. Additionally, it attracts candidates and improves future recruitment processes (Lipp, 2018), leveraging analytics to access job markets and e-commerce opportunities (Duggal et al., 2022). HR-employer branding also positively influences retention rates (Dowdy & Martindale, 2010) and provides a competitive advantage in the labor market (Lievens, 2007).

The role of psychology is critical in HRM. Numerous studies have explored the emerging needs, impacts, and pressures on HRM (Ulrich, 1998). HR professionals are required to apply psychological principles to navigate challenges such as pandemic stress (Graf-Vlachya et al., 2020; Durham, 2021; Żywiołek, 2023; Taylor et al., 2020), recruitment difficulties, employee conflicts, legalities, and health and safety issues (Masmoudi & Al-A'Ali, 2022). Additionally, they must manage performance reviews, branding cycles, reputational risks, and internal HR activities, while addressing recreational aspects and overcoming various phobias, such as glossophobia and technophobia (Żywiołek, 2023).

The psychology of management provides a foundation for ensuring employee engagement, meaningful practices, and preventing psychological harm (British Psychological Society [BPS]). This framework aids in effective recruitment and selection, psychological testing and evaluation (McDermott et al., 2013), disciplinary actions, performance management analysis, negotiation and compensation, conflict resolution, and overall workplace engagement and well-being (Durham, 2021).

Another important factor in the evolving business landscape is the increasing emphasis on environmentally friendly and workplace-friendly practices. Companies are adopting workplace spirituality to enhance employee well-being, loyalty, commitment, and reduce workplace politics (Khatri & Gupta, 2022). Green HRM practices support organizations in navigating uncertainties while promoting eco-friendly initiatives. Transitioning to paperless operations through electronic conversion is one such strategy. Research indicates that workplace spirituality contributes to higher retention rates and employee morale, aligning employees' life purposes with their work and reducing turnover (Taylor & Francis, n.d.).

According to Personio, HR business partnerships (HRBPs) align people strategies with organizational strategies by collaborating closely with business leaders to develop plans that contribute to shared objectives, productivity, and promotions.

Based on the literature review, this paper emphasizes that a sole focus on employee recruitment and motivation is no longer sufficient to meet the needs of businesses and society. The study aims to empirically examine the impact of contemporary academic practices on the successful implementation of modern HR practices within Pakistan's software industry. It also highlights the urgent need to reform HR education models by equipping students with the necessary knowledge of HR technologies, marketing, analytics concepts, emerging research trends, and foundational psychology to enhance their capabilities in the HR field. The findings will illuminate the role of practical education in HR careers and offer valuable directions for future research.

In accordance with the objectives of the study, the following hypotheses are formulated to test:

H⁰: The HR Technical recruitment and selection, HR-Technology, HR-Marketing, Dynamic Workforce & Performance Mgmt., Psychology & Stress Mgmt., Green HRM and Workspace Spirituality, Celebration & Recognition Mgmt., Strategic HRP & Organizational development have significant effect on HR Manager's performance within the software firms of Pakistan?

H¹: The HR Technical recruitment and selection, HR-Technology, HR-Marketing, Dynamic Workforce & Performance Mgmt., Psychology & Stress Mgmt., Green HRM and Workspace Spirituality, Celebration & Recognition Mgmt., Strategic HRP & Organizational development have a non-significant effect on HR Manager's performance within the software firms of Pakistan?

3. Methodological Framework

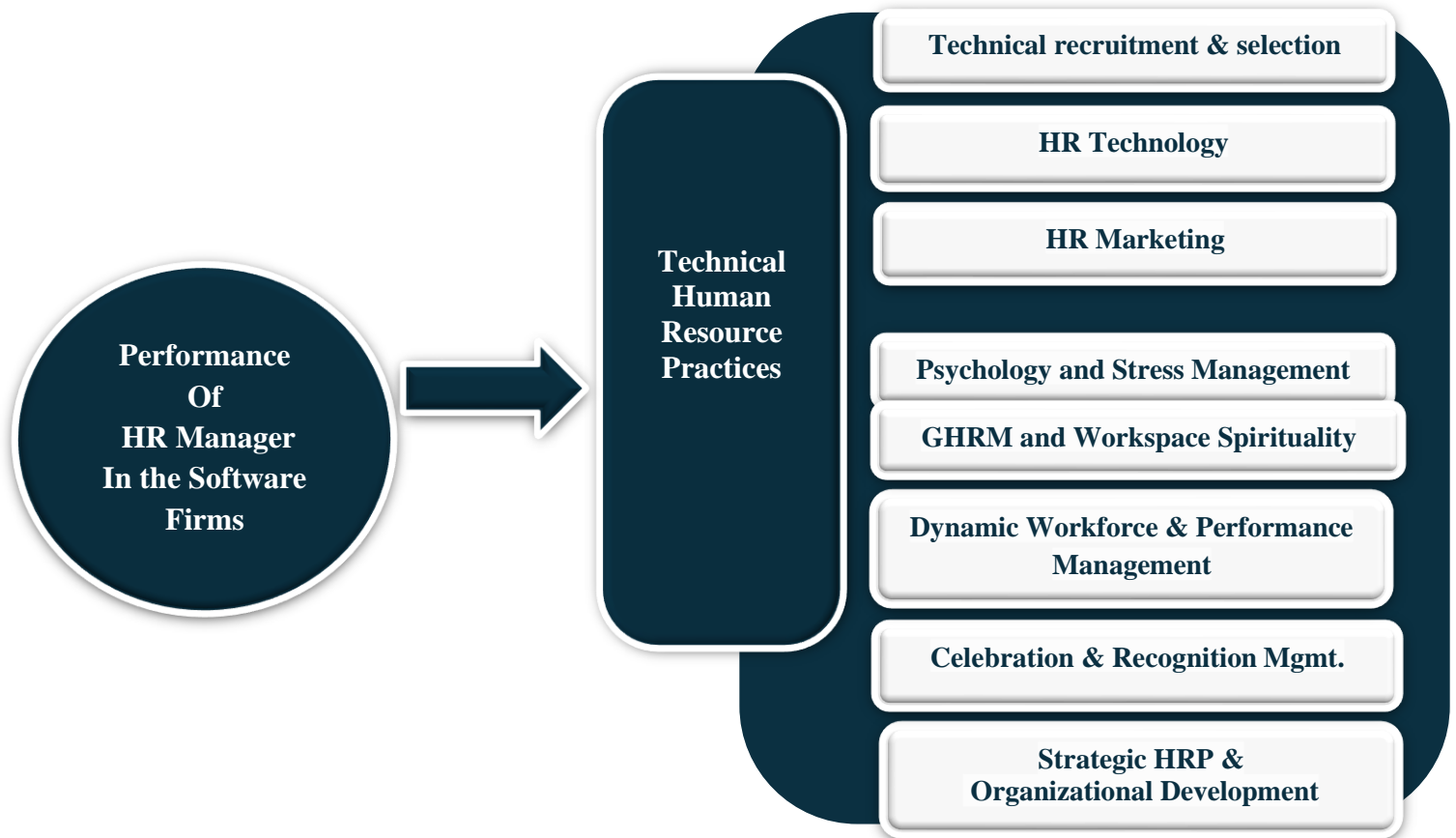
The purpose of this study is to examine the impact of HR practices on HR managers' performance by analyzing eight factors of technology-oriented HRM within the software industry in Pakistan. This research is based on hypothesis testing and employs a correlational study design, with data collected through a one-time survey.

A survey questionnaire was utilized to measure HRM practices, developed using primary sources and informed by proposed constructs of HRM practices in this field. In this research, eight important HR factors were identified as independent variables, while the effectiveness of HR managers' performance was treated as the dependent variable to explore the relationship between HR practices and the performance of HR professionals in Pakistan's software industry. The questionnaire was structured to include specific questions investigating HRM constructs proposed by the research model, addressing demographics, HRM parameters, academic knowledge, and performance. It comprises 37 items, utilizing a mixed tri-chotomous response format (1: Yes, 2: No, 3: To some extent) along with a Likert scale to record responses and extract relevant nominal

information. The Statistical Package for the Social Sciences (SPSS) version 20 was employed for data analysis. The variables chosen for the study were previously identified, thus making this design suitable.

The present study is based on primary data collected from respondents working in the HR departments of software companies in Pakistan. Information was gathered through various channels, including emails and online platforms, to investigate the effect of modern HR practices on current HR managers' performance in these companies. The study employed a convenience sampling technique due to constraints related to finances, time, and resources, as well as to ensure respondents had relevant knowledge of the subject matter.

Figure No 1: To Test the above Hypotheses, the Following Research Model is Adopted (Figure 1).



Data were collected from HR professionals in the technical human resource departments of software companies that were conveniently accessible. Thus, convenience sampling was used to enhance the study's viability and effectiveness. The following criteria were established as the basis for conducting this research from different companies in Pakistan:

1. Companies practicing technology-oriented HRM.
2. Eight members selected randomly from each of the 50 chosen software companies.
3. Software companies operating within the region of Pakistan. The total population for this study is approximately 400 respondents.

4. Data Analysis and Discussion

The data was collected from 400 respondents in software industry. To test the reliability, a test was conducted on 40 respondents to the questionnaire, and it is found that all the alpha values are **above 0.07**. Therefore, the measures are found reliable. Further, Cronbach's alpha of the sample size was tested, and the values are well within range of good to excellent reliability. The Cronbach's alpha was calculated and is mentioned in table 4.1(1).

Table No 1: Reliability of the Instruments

Cronbach's Alpha	N. of Items
0.825	28

Table No 2: HR Manager's Performance Reliability Statistics

Cronbach's Alpha	N. of Items
0.705	5

The study table (1.1) shows that Cronbach alpha is used for testing the reliability of HR factors. The scale reliability for scale of HR factors is 0.825 which shows the reliability of the scale as it is above 0.60.

The above table (1.2) shows that Cronbach alpha is used for testing the reliability of HR Manager's performance. The scale reliability for HRM performance is 0.705. The reliability of the effectiveness of HRM performance in relation to Modern HRM Practices questionnaire is reliable as the result implies in acceptable range because the alpha is greater than 0.60(Nunnally, 1978).

Table No 3: Descriptive Analysis

Name	N	Mini	Max	Mean	St.Deviation	Skewness	Kurtoses
Rec & Selection	120	1.00	2.67	1.8083	.39879	-.658	-.351
HR Technology	120	1.00	2.50	1.5000	.36668	.390	-.022
HR Marketing	120	1.00	2.33	1.6000	.31341	-.390	.114
Dyn. Force & Perf Mgmt.	120	1.00	3.00	2.0792	.45603	-.752	.643
Psy& Stress Mgmt.	120	1.00	3.00	2.0125	.48274	-.051	.982
Green HR & Work Spirituality	120	1.00	3.50	2.1125	.76823	.363	-1.132
Celeb &Recog.	120	1.00	3.00	1.9458	.62104	.075	-.584
St. Partnership & Org Dev	120	1.00	2.57	1.7667	.42964	-.145	.187
Valid N (listwise)	120						

The descriptive statistics table 2 of the study, including mean (M), standard deviation (SD) Skewness and Kurtosis of Technical recruitment & selection, HR Technology, HR Marketing, Dynamic Workforce & Performance Mgmt., Psychology & Stress Management, GHRM and Workspace Spirituality, Celebration & Recognition Mgmt. and Strategic HR Partnership & OD variables that presented the total sample to describe the features of the sample of the study. The values for Recruitment & selection are (M=1.8083, SD = .39879, Kurtosis= -.351), for HR Technology the values are (M = 1.5000, SD = .36668, Kurtosis = -.022), for HR Marketing the values are (M= 1.6000, SD = .31341, Kurtosis= .114), for Dynamic Workforce & Performance Mgmt. values are (M= 2.0792, SD = .45603, Kurtosis = .643), for GHRM & Workspace Spirituality values are (M= (2.0125), SD = (.48274, Kurtosis= .982), for Psychology & Stress Mgmt. the values are (M= 1.7667, SD .42964, Kurtosis= .187), for Celebration & Recognition Mgmt. values are (M= 2.1125, SD = .76825, Kurtosis= -1.132), for Strategic HRP & OD the values are (M= 1.9458, SD = .62104, Kurtosis = .584).

All the values of skewness and kurtosis are lying within the range of (-1 to +1) which conforms to the normality of the data for regression. The descriptive statistics of each item were also measured to get the feel of the data which is presented in Appendix 4.1(1). The mean values show the average trend of different variables of HR practices and of skewness and kurtosis for all the items is within (-1 to+1) which conforms to the normality of the data in each item.

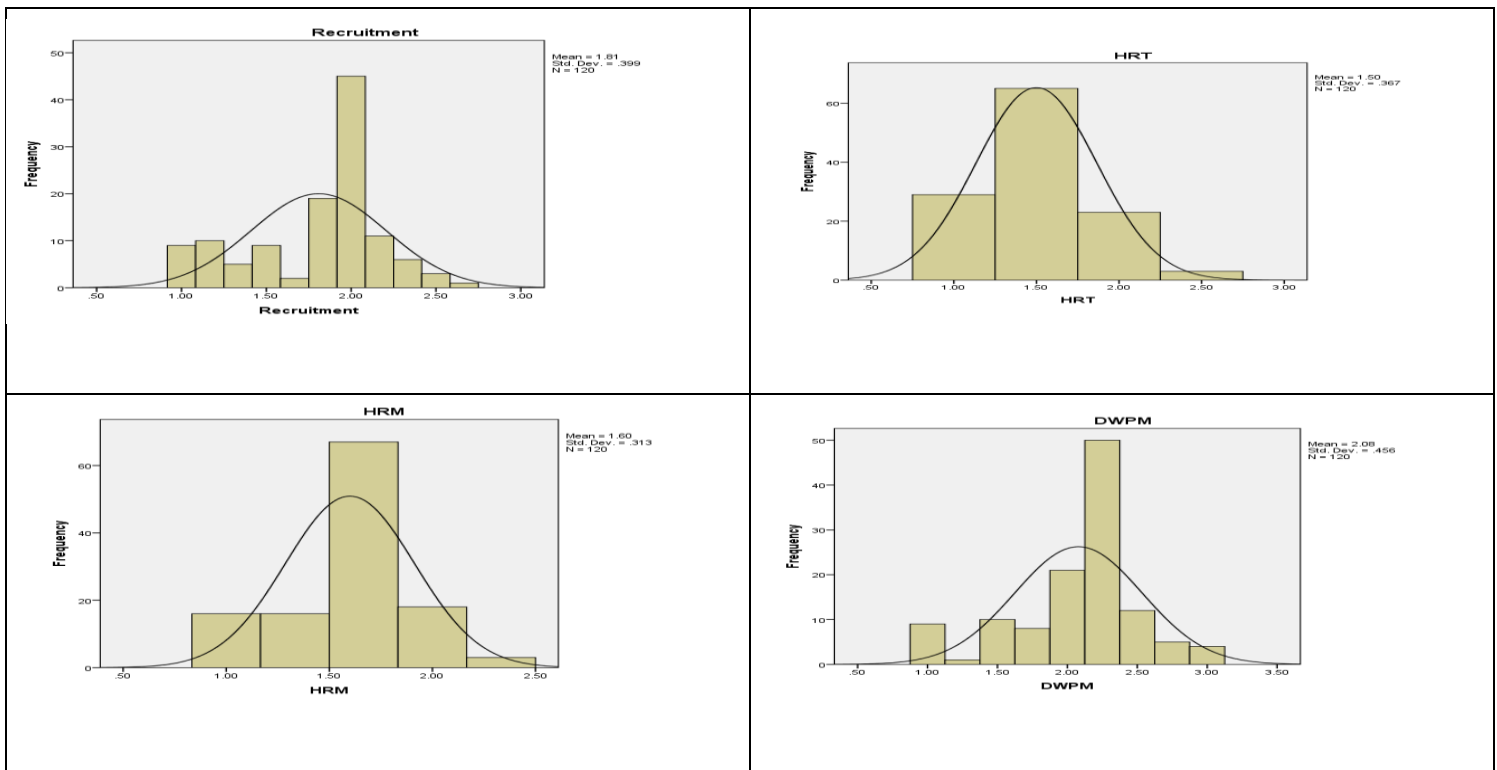
4.1 Assumption of the Normality

The assumption of normality can be tested by the visual examination of a scattered plot of the variables. If the data does not deviate much from the mean line, it is considered to be normality distributed.

4.2 Assumption of Linearity

The assumption holds that the relationship between IV and DV has to be linear for the hypothesis testing (Osborne, 2002). In case of non-linear relationship, other statistical analyses are performed in order to reach concrete conclusions. It may fail to recognize the relationship between variables. In order to evaluate the assumption of linearity, non-statistical methods are applied i.e. a scatter plot of IV with the DV (Statistics solution, n.d.). There is no violation of assumption if the residual shows a relatively straight line. The scattered plot was plotted for each hypothesis in order to evaluate the linearity between variables. There is no violation in evaluating the linearity between Tech HR practices and HR Manger’s performance as mentioned below:

Figure No 2: Frequencies



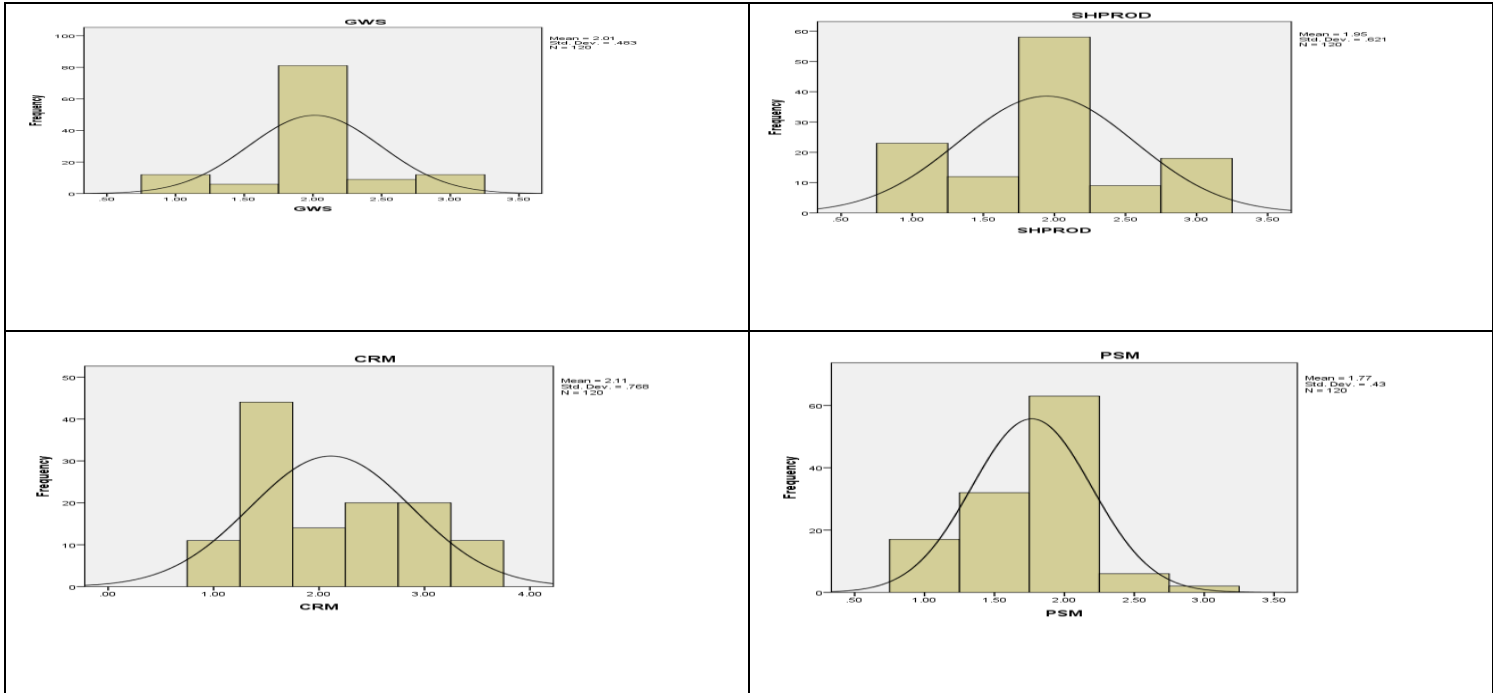


Table No 4: Correlation Regression Analysis

R&S	HRT	HRM	DWPM	GWS	CRM	SPOD	P&SM	HRP				
R&S				1								
HRT				.283**	1							
HRM				.255**	-.037	1						
DWPM				.390**	.157	.307**	1					
GWS				.282**	.024	.209*	.172	1				
CRM				.044	.000	.037	-.047	.240**	1			
SPOD				.207*	.046	.312**	.245**	.142	.136	1		
P&SM				.256**	.080	.227*	.395**	.034	-.187*	.433**	1	
HR Performance				.334**	.033	.332**	.523**	.168	-.058	.432**	.689**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level 2-tailed

The Recruitment and selection has a +ve and moderate correlation ($r = .283, p < .01$) with HR technology which means with the increase of recruitment the HR Tech will increase. The Recruitment has also a +ve and moderate relationship with ($r = .255, p < .01$) HR Marketing which

indicates that the increase in recruitment, the HR Marketing will also increase. The Tech recruitment has a +ve and moderate correlation ($r = .390, p < .01$) with dynamic workforce and performance mgmt. which shows that the increase of recruitment, the DWPM will also increase. The recruitment has a +ve and moderate correlation ($r = .282, p < .01$) with Green HRM and WS which shows that the increase of recruitment, the Green HRM and WS will also increase.

The recruitment has a +ve and moderate correlation ($r = .044, p < .01$) with Celebration and Recognition Mgmt. which shows that the increase of Recruitment, the CRM practices will also increase. The recruitment has a +ve and weak correlation ($r = .207, p < .05$) with Strategic partnership and OD which expresses the increase of SPOD with the increase in recruitment and selection. The recruitment and selection has a +ve and weak correlation ($r = .256, p < .01$) with Psychology and stress Mgmt. which expresses the increase of Psychology and stress Mgmt. with the increase in recruitment. The recruitment has a +ve and moderate correlation ($r = .334, p < .01$) with HRM performance which betokens towards an increasing trend in HRMP is a source to increase in Recruitment and selection practices.

The HR Technology has a -ve and moderate correlation ($r = -.037, p < .01$) with and HR marketing which shows inverse proportional relationship between HR Tech and HR marketing. The HR Tech has a +ve and weak correlation ($r = .157, p < .01$) with dynamic workforce and performance mgmt. which indicates a slight increase in DWPM with the increase in HR Technology. The HR Tech has a +ve and weak correlation ($r = .024, p < .01$) with Green HRM and WS which shows direct relation between HR Tech and Green HR & WS. The HR Tech has a no correlation ($r = .000, p < .01$) with CRM. The HR Tech has a +ve and moderate correlation ($r = .046, p < .01$) with Strategic Partnership and OD which shows direct relation between HR Tech and SPOD of the organization. The HR Technology has no correlation with ($r = .080, p < .01$) with Psychology and stress mgmt. which shows no relationship between these two variables. The HR Tech has no correlation ($r = .034, p < .01$) with HRMP which insights a gap in HRM performance in HR Technology knowledge.

The HR Marketing has a +ve and moderate correlation ($r = -.037, p < .01$) with dynamic workforce and performance mgmt. which indicates a slight increase in HR marketing will increase the DWPM. The HR Marketing has a +ve and weak correlation ($r = .209, p < .01$) with Green HRM and WS which means the increase in HR Marketing will increase Green HRM and WS of the organization. The HR Marketing has a no correlation ($r = .037, p < .01$) with Celebration and Mgmt. The HR Marketing has a +ve and moderate correlation ($r = .312, p < .01$) with Strategic Partnership and OD which shows direct relation between HR marketing and Strategic Partnership and OD of the organization. The HR Marketing has +ve and weak correlation with ($r = .227, p < .01$) with Psychology and stress mgmt. which shows an increase in HR marketing practices were slightly increased the PSM practices. The HR Marketing has a +ve and moderate correlation ($r = .332, p < .01$) with HRM Performance which exposed an increase in HRM Performance through increase of HR Marketing.

The dynamic workforce and performance mgmt. has a +ve and weak correlation ($r = -.172$, $p < .01$) with Green HRM and WS which shows an increase in one side, a meager increase in other side too. The dynamic workforce and performance mgmt. has a -ve and weak correlation ($r = -.047$, $p < .01$) with Celebration Mgmt. which shows inversely proportional relationship between these two factors. The dynamic workforce and performance mgmt. has a +ve and weak correlation ($r = .245$, $p < .01$) with Strategic Partnership and OD which means the increase in one factor will slightly increase the other one too. The dynamic workforce and performance mgmt. has +ve and moderate correlation with ($r = .395$, $p < .01$) with Psychology and stress mgmt. which shows an increase in dynamic workforce and performance mgmt. will increase the PSM practices. The dynamic workforce and performance mgmt. has +ve and moderate correlation ($r = .523$, $p < .01$) with HRM performance which expose direct proportion between dynamic workforce and performance mgmt. and HRMP.

The Green HRM and Workplace spirituality has a +ve and moderate correlation ($r = .240$, $p < .01$) with Celebration and Recognition Mgmt. which shows that the increase of Green HRM and WS, the Recognition practices will also increase. The Green HRM and WS has a +ve and weak correlation ($r = .142$, $p < .01$) with Strategic partnership and OD which expresses a slight increase of SPOD with the increase in Green HRM and WS. The Green HRM and Workplace spirituality has a +ve and moderate correlation ($r = .034$, $p < .01$) with Psychology and stress Mgmt. which expresses an increase PSM with the increase in Green HRM and WS of organization. The Green HRM and Workplace spirituality has a +ve and weak correlation ($r = .168$, $p < .01$) with HRM Performance which betokens towards gap in HRMP and Green HRM and Workplace spirituality.

The Celebration and recognition mgmt. has a +ve and weak correlation ($r = .136$, $p < .01$) with Strategic partnership and OD which expresses an increase in CRM will increase through SPOD of the organization. The Celebration and recognition mgmt. has a -ve and weak correlation ($r = -.187$, $p < .01$) with Psychology and stress mgmt. which expresses an inverse proportional correlation between CRM and PSM. The Celebration and recognition mgmt. has no correlation ($r = -.058$, $p < .01$) with HRM Performance which highlight the gap in HRMP and Celebration and recognition mgmt.

The Strategic partnership and OD has a +ve and moderate correlation ($r = .433$, $p < .01$) with Psychology and stress Mgmt. which expresses a direct proportional correlation between SPOD and PSM. The Strategic partnership and OD has a +ve and moderate correlation ($r = .432$, $p < .01$) with HRM performance which highlights the increasing trend between HRMP and Strategic partnership and OD side by side.

The Psychology and stress Mgmt. has a +ve and moderate correlation ($r = .689$, $p < .01$) with HRM Performance which means increase in Psychology and stress Mgmt. caused increase in other factor too.

Table No 5: Multiple Regression Analysis

Model	R	R square	Adjusted R square	St. Err of estimate
1	.765	.585	.555	.231

Predictors (Constant tires, HRM, DWPM, PSM, GWSM, C&RM, SP&OD)

The table 5 shows the model summary indicates that the eight variables are entered into multiple regression model and (**R**: .765) is theco-relation of these eight sub indicators of independent variable with dependent variable.The table indicates that the (**R²**: .585) explains the variance. It is found that 58% variance in HR professionals' performance is being accounted for by HR practices (knowledge). It means 58% HR professionals' performance is affected by the knowledge practice-gap. The probability of **59%** other residual percentage has been found which are not measured in this study.

Table No 6: Coefficients

Constant	.479	.178		2.689	.008
R&S	.059	.063	.068	.948	.345
HRT	.066	.061	-.070	-1.080	.282
HRM	.082	.075	.074	1.091	.278
DWPM	.186	.055	.24	3.393	.001
GWS	.040	.048	.056	.835	.406
CRM	.008	.030	.018	.276	.783
SHP &OD	.057	.040	.103	1.426	.157
PSM	.421	.061	.520	6.941	.0000

Dependent Variable: HRP

The table 6 analysis describes that the eight factors efficiently correlate HR practices with HR professional's performance. Beta under standardized coefficients, beta is .068 for recruitment and selection cluster which shows insignificant evidence to conclude a significant linear relationship at .345 ($p < .05$) level. Therefore, we accept the alternate hypothesis.HR Technology cluster has a negative lowest beta $-.070$ and significant level is .282 ($p < .05$) means it didn't have a direct impact on HR professional performance because of the ignorance of knowledge regarding this cluster. Therefore, we accept the alternate hypothesis.HR Marketing cluster has a coefficient beta of .074 and statistically insignificant relationship at .278 ($p < .05$) level. Therefore, we accept the alternate hypothesis. Dynamic workforce and performance management cluster has a beta

coefficient of .245 that shows every 1-unit increase in the predictor variable the impact of HR professional performance was increase by .24 units and significance value of .001 ($p < .05$) level indicate a positive impact on HR professional performance.

Therefore, the results support the hypothesis. Green HRM and Workplace spirituality cluster has a beta coefficient of .056 which express that every 1-unit increase in GWS was increase the impact on HR professional performance by .05 units and significant level is .406 ($p < .05$). Therefore, we accept the alternate hypothesis. Celebration and Recognition Mgmt. cluster has a beta coefficient of .018 which express positive effect by every 1-unit increase was impact on HR professional performance by .08 units and significant level is .783 ($p < .05$). Therefore, we accept the alternate hypothesis. Psychology and stress Mgmt. cluster has a beta coefficient of .520 which indicate an effect by every 1-unit increase was impact on HR professional performance by .520 units and significant level is .000 ($p < .05$). Therefore, the results support the hypothesis. Strategic HR & OD cluster has a beta coefficient of .103 which indicate an effect by every 1-unit increase was impact on HR professional performance by .10 units and significant level is .157 ($p < .05$). Therefore, we accept the alternate hypothesis. Consequently, we accept the alternate hypotheses.

5. Conclusion

This study was conducted to measure the effect of HR practices on HR managers' performance, highlighting the influence of current HR practices on the careers of HR professionals in Pakistan's software industry. The data analysis presented in the previous chapter indicates an insignificant relationship between technology-oriented HR practices and performance, which impacts the effectiveness of HR professionals in the software sector. Variations in HR practices knowledge significantly influence professional performance, primarily due to a lack of understanding and the increasing demand for innovative practices following the post-COVID era.

The findings reveal that the majority of HR professionals in the tech sector acknowledge the advancements brought about by technology in the HR field, underscoring the urgent need to redesign the existing academic knowledge model. Respondents suggested that academicians and universities should prioritize practical studies over outdated theories, upgrading curricula to include contemporary HR practices. The transition from traditional HR to digital HR requires the introduction of subjects that facilitate students' coping and reskilling for their careers.

Respondents argued that the current literature is obsolete and fails to address the latest HR trends. Universities should revamp their syllabi to incorporate AI, which is increasingly critical in HR and represents the future of the field. Academic institutions should develop strategies that showcase theoretical principles and their practical applications in HR. For example, assigning research papers and case studies can help students analyze contemporary trends and critically evaluate the strengths and weaknesses of HRM, allowing them to develop informed recommendations and insights into the opportunities and challenges faced in modern HR practices.

The introduction of HR development programs in academic curricula will equip students with knowledge of HR innovations, trends, remote work policies, certification programs, and

analytics, fostering their professional growth and skill enhancement. With updated recruitment and selection processes, it is essential to include tools for performance management, key performance indicators (KPIs), record maintenance, and data processing. Furthermore, AI training and performance management components, such as human resource information systems (HRIS), employee relationship management (ERO), customer relationship management (CRM), cloud software, Oracle, SAP, and project management tools like Trello and Time Doctor (Software Advice, 2023; Simplilearn, 2023) should be integrated into the curriculum. This will help students understand the foundational elements of HR within organizations.

Universities should simulate onboarding, training, performance assessments, and appraisal processes based on theoretical frameworks, enabling students to grasp real-time information. Additionally, payroll management education should include insights into tax calculations, provident funds, employee benefits (EOB), social security, and other administrative aspects, improving compliance and service delivery while allowing students to make informed decisions based on real-time metrics.

Psychology and stress management are critical components of HR professionals' lives. Topics such as employee psyche, work-from-home challenges, inter-departmental HR challenges, people management, and self-control can be effectively covered in HR psychology courses. This will enhance conflict resolution skills, leadership capabilities, and the ability to manage multiple tasks while coordinating with employers. Understanding these dynamics will enable students to navigate themselves, others, and various situations more efficiently.

Every organization exhibits different HR practices, so it is vital to highlight various industry HR practices in introductory HR courses. This will provide students with a comprehensive understanding of both tech and non-tech orientations, as well as diverse HR management styles. Since HR practices in foreign literature often differ from those in Pakistan, including case studies that reflect national scenarios will be beneficial. The academic knowledge model must be redesigned to incorporate emerging trends and practical components. If the HR field continues to evolve, academic knowledge should do the same. As the digital era advances, we must equip students with practical theories rather than mere textbook knowledge, allowing them to confront real-world problems and develop innovative solutions that contemporary HR managers face. Understanding these challenges will empower students to devise effective strategies and solutions. Finally, there should be a stronger industry-academic linkage established by the Higher Education Commission to enforce new learning approaches across all fields.

5.1 Limitation and Future Research Direction

The information used in this research is minimal. The current study addressed only few aspects of HR i.e. technical recruitment & selection, HR Technology, HR Marketing, Dynamic Workforce & Performance Mgmt., Psychology & Stress Management, GHRM and Workspace Spirituality, Celebration & Recognition Mgmt., Strategic HRP & OD. The HRM Practices opted was very limited and exclusive. The provision of further in-depth study on additional HRM

Practices, other variables could be used as mediators and moderators and also how to equip HR students with emerging insights within HR sphere would be value addition to facilitate the upcoming HRs. The current study based on cross sectional and all the questions was self-reported and have been gathered in a specific point of time with reverse causality and common method bias. By utilizing longitudinal data, further research could address this issue. The literature review section could have been more detail-oriented but the availability of few quality books and research was unavailable, that's why some other factors that affect the HRM performance were not considered. The response rate of survey questionnaire was low as it was mailed to the HR participants for data collection within a specific period. Reminders and follow-up emails could increase the response rate.

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