REIMAGINING THE LABOR LAWS FOR THE DIGITAL AGE: A SYSTEMATIC REVIEW OF HRM, GIG WORK, AND LEGAL GAPS IN PAKISTAN

1.* Muhammad Umar Shahzad
Virtual University of Pakistan

ABSTRACT

This study is based on a systematic literature review. It critically examines the intersection of labor laws and human resource management (HRM) practices in the context of the emerging digital landscape in Pakistan. Using the PRISMA Framework for shortlisting 56 peer-reviewed studies that were published between 2010 to 2024; this study explains to what extent the existing labor laws and regulations align with the changing dynamics of digital HRM, flexible work arrangements, and a growing gig economy in Pakistan. This study found that significant gaps in Pakistan's labor laws exist and these labor laws are mostly insufficient to protect freelancers, platform workers, and remote employees working in different sectors. Although, the practices of digital HRM such as online recruitment, AI-based performance management, and cloud-based HR systems have gained popularity in formal sectors of the economy; their adoption remains irregular; especially among SMEs and public sector institutions. This review identified major themes in the literature, and critical implications for HR professionals, policymakers, and organizations. This study calls for context-specific models of HRM, legal reforms to recognize digital labor, and targeted capacity-building initiatives for closing the digital divide. Also, it highlights the need for inclusive policies to ensure decent work, social protection, and the ethical use of technology in employment practices.

Keywords: Labor Laws; Digital Work; HRM; Gig Economy; Legal Gaps; Digital HRM

1. INTRODUCTION

The nature of work in the digital world is changing due to the increasing use of technology in the workplace. This includes the use of Artificial Intelligence (AI), Internet of Things (IoT), cloud computing, digitalization, and automation not just in traditional business models but also in the modern workplace where the latest practices of Human Resource Management (HRM) are being implemented (Iqbal et al., 2019; Zaheer et al., 2023; Amir et al., 2024). All this is true concerning the developing economy of Pakistan too. Human Resource Management (HRM) is evolving from merely an administrative efficiency function towards the role of strategic partnership in organizations with the use of a data-driven approach and rapid automation (Niaz, 2020; Tariq & Shirazi, 2024; lsmail et al., 2023).

Keeping in view this context, the non-compatibility of the labor laws in Pakistan with these fast changes is a serious concern (Malik et al., 2020; Akbar, 2024). Pakistan's digital economy is rapidly growing, with the ICT sector contributing approximately 1% to the national GDP and generating over $3.5 billion in IT and IT-enabled Services (ITeS) exports in 2023 (Mubarak et al., 2019; Shahid et al., 2024). Moreover, Pakistan ranks 4th globally in freelance earnings according to a Payoneer report released in 2022, with over 1.5 million freelancers contributing to the gig economy (Ali, 2023; Shahzad & Ahmed, 2025). Most adopted freelance business platforms such as Upwork, Fiverr, and Toptal, as well as the local players such as WorkChest and Rozgar have influenced a change in the employment pattern in the local workforce by introducing flexible options with autonomy. However, this has caused issues concerning job security, legal protection, and long-term social welfare, compared to the traditional jobs that often provide additional facilities like medical facilities, housing pension schemes, etc., as per the requirement of the labor laws in Pakistan (Niaz, 2020; Hassan & Syeda, 2019; Ali & Rizavi, 2020).

Despite this boom in the digital economy, labor regulations in Pakistan remain grounded in pre-digital frameworks that were largely shaped by industrial-age patterns. Core labor laws, including the Factories Act (1934), the Shops and Establishments Ordinance (1969), and the Industrial Relations Act (2012), do not adequately recognize digital labor, gig workers, or remote employment relationships (Malik et al., 2020; Akbar, 2024). There is no real legal recognition for freelance workers who work on different digital platforms which excludes them from multiple benefits like pensions, social security, and compulsory health insurance even in most of

those cases where those employees have regular employment in those freelance service-providing agencies. Moreover, due to such legal complications, most of them are not in the tax net and are part of the informal undocumented economy (Shahzad & Ahmed, 2025; Mubarak et al., 2019). Gig Economy and Free Lancing: Challenges and Opportunities in Pakistan. A Qualitative Study. *Journal of Social Sciences and Economics*, *4*(1), 62-74.; Ali, 2023). A bill with the title of Personal Data Protection Bill (2023) is still pending in the parliament of Pakistan leading to further uncertainty with respect to the data rights of employees for systems based on digital HRM (Niaz, 2020; Hanif & Ahsan, 2020).

There is not much doubt that there are legal and regulatory gaps that raise urgent concern for research in the context of HRM for the changing digital and legal landscape in Pakistan. Hence the research question for the current study is "How do Pakistan's labor laws and HRM frameworks need to be refined to better tackle the opportunities and challenges of digital transformation more specifically related to employees' protection in the context of gig and remote work and promotion of inclusive, equitable and decent work in the digital era?". To address this research question; this study had three research objectives. The first was to examine how relevant and responsive are the current labor laws of Pakistan in the context of emerging non-traditional and digital models of employment. The second research objective was to analyze how HRM practices have reshaped due to digital technologies more specifically concerning recruitment & selection, performance management, training & development, compensation management, and employee engagement in this era of digital work. The second research objective was to highlight the recommendations concerning policy and practice for the adoption of precise HRM strategies with reference to prevailing HRM laws that support decent work, inclusivity, and social protection at the workplace.

Through a systematic literature review of studies published between 2010 to 2024; this research aims to provide a comprehensive understanding of how digital transformation intersects with legal and managerial frameworks in Pakistan. The review synthesizes themes from academic research, government policies, international reports, and case studies, such as the gig work protections proposed under the legal framework by the federal government along with the regulations in Punjab and Sindh such as Sindh Home-Based Workers Act (2018), and pilot projects by the Khyber Pakhtunkhwa government introducing digital wage payment systems for informal workers (Hassan & Syeda, 2019; lsmail et al., 2023). This study contributes to a

growing yet underdeveloped body of literature on digital labor governance in South Asia. Research findings of this study are helpful not only for the policymakers at the government and institutional level but also for the HR practitioners, advocates of labor laws, researchers, and entrepreneurs working in the digital arena for developing future-oriented HR strategies in the changing labor market of Pakistan (Niaz, 2020; Khan et al., 2019).

2. LITERATURE REVIEW

The increased digital transformation in the context of Pakistan raises critical questions about the application and suitability of existing labor laws in Pakistan (Iqbal et al., 2019). This systematic literature review highlights the major shift in the world of work concerning labor laws in the context of Pakistan in a way that identifies major challenges, opportunities, and emerging strategies for ensuring social protection and decent work. Hence, this study contributes to the evidence-based approach for policy and practice by highlighting the following themes of literature through an integrated systematic literature review (Shahzad & Ishaque, 2021).

2.1 Labor Laws and Regulations

Labor laws and regulations of Pakistan are deliberated for the protection of the rights of employees along with the promotion of a conducive business environment. Pakistan has approved 30 agreements of the International Labour Organization (ILO) to ensure the obligations of employers to cover basic employee rights (Hassan & Syeda, 2019). Major labor laws and regulations in Pakistan include the Employees' Old Age Benefits Act, 1976, which provides old-age benefits to employees, and the Provincial Employees' Social Security Ordinance, 1965. It offers social security reimbursements to employees (Akbar, 2024).

The Industrial and Commercial Employment (Standing Orders) Ordinance, of 1968 regulates employment terms and conditions, while the Minimum Wages Ordinance, of 1961 sets minimum wages for employees. Additionally, the Payment of Wages Act, of 1936 safeguards timely payment of wages, and the Workmen's Compensation Act, of 1923 offers compensation for work-related injuries. The Factories Act, of 1934 regulates the working conditions in factories, and the Punjab Shops and Establishments Ordinance, of 1969 regulates employment in shops and institutions (Malik et al., 2020).

Concerning employment contracts, Pakistan's labor law suggests six different categories including permanent, probationers, badlis (alternates), temporary, apprentices, and contract-based employment. Working hours are capped at 48 hours a week, with daily working hours of a

maximum of up to 9 hours. Employees are entitled to various benefits at the workplace, including annual leave, maternity leave, paternity leave, and sick leave. The minimum wage in Pakistan is approximately USD 131 per month (i.e., Rs. 37, 000), and overtime working hours are capped at a maximum of 3 hours a day, with double pay for the eligible employees (Ali, 2023; Shahzad & Ahmed, 2025).

Labor laws in Pakistan also address the data protection and the privacy of employees although the Personal Data Protection Bill (2023) is still awaiting its enactment. As per this law, employers are recommended to have written permission from employees for data processing and to ensure that data protection measures are well in place (Hanif & Ahsan, 2020; Mubarak et al., 2019). Even after these formal requirements, the existing labor laws are based on industrial-era assumptions that fail to address the real requirements of digital employment. This leaves a significant regulatory gap for freelancers, gig workers, and remote employees who now form a growing segment of the labor force in Pakistan (Ali, 2023; Shahzad & Ahmed, 2025). Hence, based on the findings of relevant literature, following is the first proposition of this study:

Proposition 1: Although the existing labor laws and regulations in Pakistan extensively address traditional employment, they are insufficient for remote work and gig economy concerning the emerging HRM requirements in this digital arena.

2.2 Digital Transformation and HRM

The digital transformations have brought a groundbreaking change in how the role of the organization is performed and the same argument can be applied to the functional element of the human resource management (HRM). In Pakistan, the digital transformation played a significant role in influencing HRM practices and a significant number of organizations started to embrace digital technologies to update the HR processes (Waheed et al., 2020). Digital HRM refers to using digital technologies to administer the HR tasks, e.g., recruitment & selection, training and development, and employee engagement etc.

Digital HRM practices have many advantages to organizations. An example is digital recruitment platforms which can help organizations to access a larger pool of candidates because it costs less time and is less expensive than use of traditional recruitment method. In a similar manner, the digital learning platforms can also offer employees with a flexible and customized learning opportunity to refine their knowledge, skills and abilities (Shabeer et al., 2019). In

addition, digital HRM can assist companies to enhance the level of employee engagement and retention by availing digital technologies and services to employees that aid in supporting their work-life balance and well-being (Shahzad and Ahmed, 2025).

Although there are these advantages of digital HRM; at the same time, organizations in Pakistan face many challenges which should be taken into account carefully. These digital HRM practices cannot be applied without substantial investment in digital infrastructure and technology, potentially becoming a challenge to small and medium-sized enterprises (SMEs) (Ahmad et al., 2020). Besides, digital HRM needs employees to have the necessary digital skills and literacy which can be a challenge in countries where digital literacy rates are relatively low. According to the World Bank Report (2022), only 38% of Pakistan's labor force possesses basic digital literacy which is a major constraint for digital HRM implementation in the country (Salimi, 2024; Amir et al., 2024; Tariq & Shirazi, 2024, Shahid et al., 2024). Digital technologies such as artificial intelligence (AI), Fintech adoption the Internet of Things (IoT), etc., will change the shape of the workplace shortly. Therefore, the organizations in Pakistan should not only invest in the adoption of those technological trends for enhancing efficiency but should also invest in their human capital for the effective use of those technologies at the workplace. Such managerial interventions may give a competitive advantage to the organizations (Zaheer et al., 2023).

By addressing skill barriers in the workforce and enhancing infrastructural facilities at the workplace, organizations may better position themselves in the marketplace through need-based deliberate and emergent strategic measures at par with the demands of a particular sector. This requires investment in digital HRM, digital competencies, data protection, and privacy measures along with compliance with the prevailing legal and ethical standards by the organizations. (Hanif & Ahsan, 2020; Mubarak et al., 2019). Hence, based on the findings of relevant literature, following is the second proposition of this study:

Proposition 2: Deliberately planned sector-wise adoption of digital HRM practices governed by precise legal compliance will enhance organizational agility along with the employees' experience and efficiency. However, the skills gap, uneven adoption across sectors, and limited investment are the biggest barriers in this regard.

2.3 Gig Economy and Non-Traditional Work Arrangements

The ratio of the workforce using non-traditional means of work such as remote work, freelancing, etc., in the age of the gig economy is increasing in Pakistan. This is a major shift from the traditional model of office work with a 9 am to 5 pm job culture due to many factors such as increased globalization, lesser foreign investment in Pakistan, and increasing unemployment. In Pakistan, the gig economy is driven by a growing pool of skilled workers who are seeking flexible work opportunities. Digital platforms such as Upwork, Guru, Fiverr, Toptal, and local services like WorkChest and Rozgar.pk are facilitating freelance and gig-based employment across sectors like IT, design, writing, and transportation (Ali, 2023).

Pakistan has emerged as one of the top five countries in the world in terms of freelance earnings, with over 1.5 million active freelancers contributing significantly to the country's digital economy as per the Payoneer Report in 2022. These workers enjoy greater autonomy and flexibility, often working remotely and choosing assignments based on their preferences. But generally, the freelancing workforce is excluded from traditional labor protections and social security that is often provided in the public and private sector organizations with full-time employment. For example, medical insurance and maybe some of those facilities (Shahzad & Ahmed, 2025; Malik et al., 2020).

One of the main features of non-traditional work is the absence of standard or formal contractual arrangements that are often not legally binding which leaves the workers on the verge of exploitation in compensation and poor work conditions. Most of Pakistan's labor laws do not address this issue as they often rely on legal definitions and explanations which are often typically rooted in the industrial age (Akbar, 2024; Mubarak et al., 2019). Hence, many of the labor laws need to be updated on urgent basis. This leaves the workers in the digital arena with limited options to claim the rights including social protection (Amir et al., 2024; Tariq & Shirazi, 2024, Shahid et al., 2024). This lack of legal recognition for gig economy workers has become a major challenge at the policy level in Pakistan. Hence, non-traditional work needs legal elaboration. This may include legal definition of gig economy workers/freelancers, compensation guidelines, dispute resolution mechanisms, medical insurance, EOBI facility, etc. Major examples of some of the organizations in the gig economy in this era may include software houses, call centers, medical transcription service providers, etc. (Ali, 2023; Shahzad & Ahmed, 2025). By addressing these challenges, practitioners may opt for aligning the organizations with

the demands of the future. Hence, based on the findings of relevant literature, following is the third proposition of this study:

Proposition 3: Non-traditional work in different sectors provides greater autonomy and income sources for the workers in Pakistan but lack of legal recognition generates a greater risk of income uncertainty and a lack of social security.

2.4 Decent Work and Social Protection

Decent work and social protection are vital for promoting economic empowerment, reducing poverty, and ensuring sustainable labor market outcomes in Pakistan. The International Labor Organization (ILO) has long collaborated with the Government of Pakistan to promote the concept of decent work, characterized by fair wages, job security, equal opportunity, and social protection for all segments of society (ILO, 2022). One of the major efforts of this nature is the Promotion of Decent Work Opportunities project funded by the Italian Ministry of Foreign Affairs and International Cooperation and targets the brick kiln industry and other at-risk populations in particular (Hassan and Syeda, 2019).

At the national level there have been efforts on social protection of employees including the Ehsaas program. Equally, the Social Protection Policy of Khyber Pakhtunkhwa (2022) is a positive move in the field of informal sector of work whose main focus is on low-income employees. The KP policy is grounded on the life-cycle approach and is aimed at creating a social protection as part of the budgetary planning and priority of development (lsmail et al., 2023). Among the aspects that were introduced as critical under the Ehsaas Program that was launched in 2019 were financial inclusion, education support, digital payments, and medical amenities to marginalized workers, including domestic workers, agricultural workers, and gig workers (Hassan and Syeda, 2019).

But even in spite of these efforts, there are still a number of challenges. The social protection mechanisms are formally applied to only 3 percent of the Pakistan labor force (ILO, 2022). The majority of informal, freelance, and platform employees do not receive the schemes EOBI, health, and unemployment benefits (Shahzad and Ahmed, 2025). There is restricted financing and division of service delivery, as well as the lack of awareness among receivers, which impedes implementation (lsmail et al., 2023; Mubarak et al., 2019). ILO has computed that an

extra well above 17 million dollars of funds are needed to support the social protection infrastructure and programs in Pakistan reasonably (ILO, 2022).

At the provincial level, there are promising innovations that include One-Window Operations on Social Services and digital relief payment systems that have been piloted by Punjab Information Technology Board(PITB). Such online applications are supposed to enhance openness, enhance the availability and access to benefits, and to tie the services of crisis responses with the social protection services (lsmail et al., 2023). Pakistan has also begun to cover underrepresented groups like construction workers and earners above the minimum wage, and this is positive news toward making inclusion more inclusive. However, in order to implement fully the ILO decent work agenda, Pakistan needs to embrace a nationally organized strategy that resonates social protection and labor rights, digital transformation, and inclusive economic policies. It will be important to extend the protection to the workers in non-traditional set ups and incorporate social protection in digital HRM systems to make the workforce in Pakistan resilient in future. Therefore, according to the results of the literature review, the fourth hypothesis of this project will be the following one:

Proposition 4: The effective implementation of digitally enabled and inclusive social protection policies in Pakistan contributes to enhanced job satisfaction, reduced workforce vulnerability, and the realization of decent work standards, but requires significant investment, institutional coordination, and legal reform to reach informal and digital workers.

2.5 HRM Practices in the Digital Age

Digital HRM practices have increasingly transformed the way organizations manage their human resources, improving access to talent acquisition, employee learning, and performance management tools. The use of digital HRM helps organizations manage a large pool of labor and helps in the assessment of gaps in the knowledge, skills, and abilities for providing appropriate learning platforms accordingly. Somehow, professionals and leaders working in the domain of HRM in Pakistan face challenges to the adoption of digital HRM due to the lack of digital literacy, lack of finances, and potential resistance to such a change (Shabeer et al., 2019; Hanif & Ahsan, 2020).

Labor laws and regulatory frameworks are also linked with such organizational initiatives for the adoption of digital HRM and most of those labor laws lag with respect to the latest technological developments at par with the developed world. Effective use of digital tools significantly

depends upon contract terms, data privacy issues, and the resolution of disputes among employees at the workplace (Malik & Rahman, 2021). A typical example in this regard is that there is no proper legislation with respect to digital signatures and electronic contracts and this often creates uncertainty and disputes in the online recruitment systems within different organizations in Pakistan. Furthermore, data privacy for employees in digital HRM systems is a genuine concern due to limitations of regulatory structure within the prevailing labor laws (Iqbal et al., 2019). Available HRM practices require digital tools properly aligned with labor laws for the thorough protection of employees' rights and trust. Recent studies have shown that those organizations in Pakistan that adopted digital HRM with a thorough alignment with the labor laws experienced high performance and greater levels of job satisfaction among the employees (Shah & Javed, 2020; Akbar, 2024). Hence, based on the findings of relevant literature, following is the fifth proposition of this study:

Proposition 5: The use of digital HRM practices especially for online recruitment and digital learning aligned with the prevailing labor laws of Pakistan is a source of trust, enhanced performance, and a competitive digital economy.

2.6 Challenges and Opportunities for HRM

There are several challenges for the leaders' professionals of HRM in Pakistan. There is a lack of vocational training and education which is a major problem in Pakistan for organizational growth. Hence, organizations often have to make additional investments in training & development, onboarding, and on-the-job training of employees (Ahmad et al., 2020). These constraints in the technical and financial resources are a greater barrier to the adoption of advanced HRM practices like those adopted in many of the developed countries. Hence, large organizations, especially the public sector organizations rely more on the administrative approach/function and treat HRM as a section of it which needs to be discouraged at some stage in the future. This scenario further complicates the adoption of digital HRM functions (Bhutta & Zafar, 2019). Moreover, the very complicated and non-consistent labor laws of Pakistan limit the implementation and add to the lack of compliance (Ali & Malik, 2021).

Even with multiple hurdles, there are many opportunities for the adoption of digital HRM in the organizations of Pakistan. As such tools enhance to participation of underprivileged groups, hence, they add to diversity, equality, and inclusion (DEI) It also helps in providing a platform for remote work, and improved communication channels, which is essentially important for a

diverse country like Pakistan having regional, lingual, gender and sectarian diversity etc. (Ali & Rizavi, 2020). Moreover, other HRM activities such as talent management, employee engagement, and training need assessment, etc., get better aligned with the organizational goals, mission, and vision in a rapidly changing external environment that ruthlessly demolished the organizations with a culture of manual work, bureaucracy, and red tape, etc. (Raza & Aslam, 2022).

A properly aligned digital HRM system with labor laws can give a competitive advantage and a strategic imperative to any organization in the market. Moreover, it may address many of the regulatory requirements of labor laws about HRM and professionals may find them easier to handle and implement for record keeping once HR details of individual employees are thoroughly automated. Hence, it provides a better cushion for individual feedback, grievance handling, and record keeping such as leaves, compensation, attendance/working hours, and other HR-related official documentation of employees. This enhances legal compliance, and trust and provides growth opportunities for the organization and all this applies to the public and private sector organizations in Pakistan as well (Ali & Rizavi, 2020). Hence, based on the findings of relevant literature, following is the sixth proposition of this study:

Proposition 6: For strict compliance, adoption of technological change, and workforce diversity, HR professionals in Pakistan face major challenges. However, these challenges are also strategic opportunities for sustainable organizational growth, inclusion of the workforce, and innovation.

2.7 Policy and Regulatory Frameworks

Labor laws and policies are often loosely implemented in Pakistan as the bulk of the workforce is employed in the informal sectors where such regulations are difficult to implement (Akbar, 2024). The inefficiency in the implementation of labor laws in Pakistan is often due to a lack of coordination, resource constraints, and bureaucratic inefficiency in respective institutions like the Ministry of Overseas Pakistanis, provincial labor departments, and labor courts (Malik et al., 2020). Hence, such institutional weakness contributes to the inefficiency in labor rights protection and lack of awareness among workers and employers with respect to the legal obligations and entitlements at the workplace.

Moreover, rapid evolutionary changes at the workplace such as platform-based work, digital contracts, gig economy jobs, and remote work have brought in front the new challenges and the

prevailing labor laws do not properly address them. This highlights the need for new legislation in this regard on a priority basis (Khan & Siddiqui, 2021). Therefore, the alignment of modern HRM practices becomes difficult due to the flaws in the available legal framework for labor laws in Pakistan. Hence, there is a dire need to update the labor laws in Pakistan to align with the emerging trends of work for the policies to protect workers' rights, organizational flexibility, and innovation by human capital in the modern workplace. For the increased awareness about labor rights, there is also a greater need for closer liaison between respective government bodies and organizational stakeholders implementing policies related to modern practices of HRM (Amir et al., 2024). Hence, based on the findings of relevant literature, following is the seventh proposition of this study:

Proposition 7: Updating existing labor laws along with the development of relevant new labor laws, regulatory frameworks, and policies will lead to increased outcomes in the labor market, a greater sense of social security and protection, and organizational compliance not only in the formal but informal sectors of the economy.

2.8 Impact of Emerging Technologies

Emerging technologies like Artificial Intelligence (AI) and blockchain are transforming HRM practices globally, offering significant potential for automation, enhanced data security, and improved decision-making processes. In Pakistan, these technologies present opportunities for innovation in recruitment, performance management, and employee engagement, which can lead to increased organizational efficiency and competitiveness (Iqbal et al., 2019). Just as an example, Artificial Intelligence (AI) tools can help in the screening process after recruitment, and blockchain technology if employed can maintain a transparent system for maintaining and verifying the records of employees.

Somehow, there are a few risks associated with the sudden adoption of those technologies and some of those risks may include a mismatch of skills and job displacement in a place where traditional skills are prevalent and digital literacy is low (Khan & Tariq, 2021). Somehow, there has been this concern in a few quarters that due to rapid automation and innovative technological adoption such as AI; there may be a potential risk of unemployment in the near future and the workforce needs to adapt itself for learning new digital realities of work. However, a major skills gap exists in the traditional workplace/formal sectors of the economy in Pakistan as the bulk of the workforce is not adept with these latest trends of technology usage. Therefore, to address

these skill gaps, government measures are also in place to some extent such as education for digital entrepreneurship's inclusion in curriculum, coding education and AI usage trend, and the establishment of technical training facilities such as the National Information Technology Board (NITB) is a part of those measures. However, the inclusion of technology trends in HRM practices requires careful collaboration between education institutions, regulators, and the industry (Iqbal et al., 2019). Hence, based on the findings of relevant literature, following is the eighth proposition of this study:

Proposition 8: Organizational efficiency in Pakistan may be improved by the use of emerging technologies such as AI, and blockchain in HRM practices and this may lead to innovative decision-making, capacity building, and increased organizational performance. However, there are concerns about the job shift, joblessness of some of the old skills, and a need of more investment in training & development to do further capacity building of stakeholders.

Table 2.1: *Year-wise Summary of Key Studies on Labor Laws, HRM, and Digital Transformation in Pakistan (2010–2024)*

	Author(s)	Theme	Focus Area	Key Findings
2010	Rainnie et al.	Labor Rights	Employment Spaces	Highlighted longitudinal dimensions of labor conditions; relevance in digital age governance.
2011	Sajjad	Brain Drain	HRM & Migration	Identified inadequate legal/HR frameworks as a driver of brain drain.
2012	Chaudhry	Legal Gaps	MNC Practices in Pakistan	Emphasized legal and HR alignment gaps in multinationals operating in Pakistan.
2013	Ali	Gender Equality	Equal Opportunity	Need for labor law reforms to support women's participation in the evolving digital workplace.

Year	Author	Topic	Focus	Key Findings
2014	Newman	Workforce Inequality	Health Sector HRM	Gender-based policy implementation challenges evident in informal gig-based work.
2015	Moomal & Masrom	ICT & HRM	e-Business Impact	Early analysis of how ICT adoption lags in HR due to regulatory inertia.
2016	Hamid & Khalid	Digital Economy	Entrepreneurship	Stressed policy shift towards innovation; and static nature of labor laws.
2017	Ali & Syed	Gender & Policy	Multilevel Equality Framework	Urged policy updates for inclusive digital labor participation.
2018	Syed & Tariq	Contemporary HR Issues	Multilevel HRM Challenges	Anticipated future gaps in labor regulation with digital HRM expansion.
2019	Hassan & Syeda; Shabeer et al., 2019; Bhutta & Zafar; Shabeer et al., Iqbal et al. Mubarak et al.	Digital HRM; Decent Work; Employee Well-being	SMEs; Informal Sector; Well-being	Digital HRM benefits noted; informal workers excluded from protections.
2020	Waheed et al.; Hanif & Ahsan, 2020; Niaz, 2020	Gig Economy; Digital HRM; Technology Risks	Freelancing, HR Tech	Legal gaps persist; digital tools adopted unevenly; freelancers lack rights.
2021	Khan & Siddiqui; Shahzad & Ishaque	Legal Reform; Co-Creation	Policy Gaps; Theoretical Insights	Urged comprehensive legislative review for digital labor inclusion.
2022	ILO; Salimi	Policy Reports	Social Protection & Digital Literacy	3% labor force covered; 38% digital literacy; investment needed.
2023	PDP Bill (cited); Khan et al.	Data Rights	Personal Data Protection	Pending bill illustrates legislative delay affecting HRM adoption.

| 2024 | Amir et al.; Shahid et al.; Tariq & Shirazi | Digital HRM, Decent Work | Performance, Inclusion, Reskilling | Digital HRM linked with employee trust; legal clarity essential for sustainability. |
| 2025* | Shahzad & Ahmed | AI & Governance | Evolving Legal Landscape | Highlighted challenges in regulating AI within corporate HR practices. |

Source: Author's own calculations

3. METHODOLOGY

In the past, research scholars have used several types of review-based options such as framework-based reviews (Paul et al., 2023), structured reviews with a focus on commonly used methods, theories, and constructs (Rosado-Serrano et al., 2018) hybrid-narrative reviews incorporating a framework for guiding future research agendas (Roy et al., 2024; Shahzad & Ishaque, 2021). As per the objectives of this study, the researcher used a structured review approach which is a widely used approach using theories, constructs, and critique on the prevailing practices of labor laws in Pakistan in the context of digital HRM practices (Kahiya, 2018) There was a need to combine the existing body of knowledge on the existing labor laws in context of digital adoption in the arena of HRM for advancing scholarship and practice because such issues are related to both practitioners and academia. Time period for this study was selected from 2010 to 2024 as much of the latest technological advancement has come after 2010. Hence, there is a need to update the literature on this topic from the lens of post novel approach (Macpherson & Holt, 2007).

3.1 Selection of Databases

Only the research papers and reports that were peer-reviewed English-language from authentic online sources of secondary data were selected from reliable publisher databases, including Emerald, JSTOR, ScienceDirect (Elsevier), Taylor & Francis, SpringerLink, Wiley-Blackwell, and also from the Google Scholar. These publishers' databases which were utilized in previous systematic literature reviews, are the most commonly used research sources of secondary data for academic publications in the domain of business and management (Shahzad & Ishaque, 2021).

3.2 Article Selection

Different keywords were used which were directly relevant to the HRM practices and labor laws in Pakistan for a precise search of the secondary data. In the systematic literature review, use of the search strategies like "search for keywords in the title" remains helpful particularly when the size of the existing body of literature is large enough (Pittaway et al., 2004). The procedure of the selection of keywords and the scope and depth of the study were also given due importance. Precise used of keywords was made for this systematic literature review as part of the search strategy and those keywords were, "human resource management," "HRM," "HRM and legal issues in Pakistan," "challenges of HRM in Pakistan," "Digital HRM laws and practices in Pakistan," "opportunities of Digital HRM," "labor market in Pakistan," "digital transformation in Pakistan," and "emerging technologies for work", "emerging technologies for organizations in Pakistan". For enhancing the search scope, Boolean operators were used to expand the scope of search and to have diverse perspectives related to the topic of research (Macpherson & Holt, 2007). Subsequently, a detailed review of finally shortlisted articles helped in the extraction of themes and respective propositions from this systematic literature review. These themes may prove helpful for future researchers to do empirical research for validating the theory and to refine the practice.

3.3 Inclusion and Exclusion Criteria

Those studies were included that somehow focused on HRM practices and the adoption of labor laws along with digital transformation and its associated opportunities and challenges. Those studies were excluded from the review which did not have relevance, or peer review, or were found duplicate across different databases (Macpherson & Holt, 2007).

3.4 Paper Refining Criteria

With the precise use of the PRISMA framework, initial screening was done on the basis of the relevance of the title and abstract of chosen research papers. The full-text screening was done for the shortlisted studies with careful methodological rigor. Only those studies were included in the final analysis that met all the criteria (Liberti et al., 2009).

3.5 Data Extraction and Synthesis

The pre-designed template was used for the extraction of data with a precise focus on the characteristics of the study, challenges of HRM, themes of digital transformation, and literary

discussion on the prevailing labor laws of Pakistan. To identify patterns in the literature, a thematic analysis approach was employed for this study (Macpherson & Holt, 2007).

3.6 Quality Assessment

Critical Appraisal Skills Programme (CASP) checklist was used to ensure the robustness and to check the quality of studies included in this systematic literature review. Those studies that had the highest level of methodological, theoretical, and practical implications towards the topic were prioritized for this systematic review (Macpherson & Holt, 2007).

3.7 Use of PRISMA Framework

This systematic literature review was conducted with the help of a standardized approach of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) which is the most commonly recommended approach for a systematic literature review and meta-analysis. This approach helps in a transparent, and smooth selection of databases and research studies for inclusion in a systematic literature review or a meta-analysis (Liberti et al., 2009). Using the PRISMA framework; firstly, 143 research papers were shortlisted due to their relevance to the topic. The search strategy used was to identify the relevant studies with respect to their titles and the text for their relevance to the topic of the current study. Three duplicate records were excluded, and ten records did not match with the reference management software, i.e., Mendeley. Seven other studies were also there that did not have one or more variables relevant to the research or its objectives and were excluded. Finally, from the 143 studies screened at this stage, 7 were excluded on the basis of quality criterion. No registers (online first/pre-published articles) were included in the final selection although three reports were considered for final inclusion. Finally, 56 studies were included in this systematic literature review and this literature was found most relevant to labor laws in the context of digital HRM practices in Pakistan.
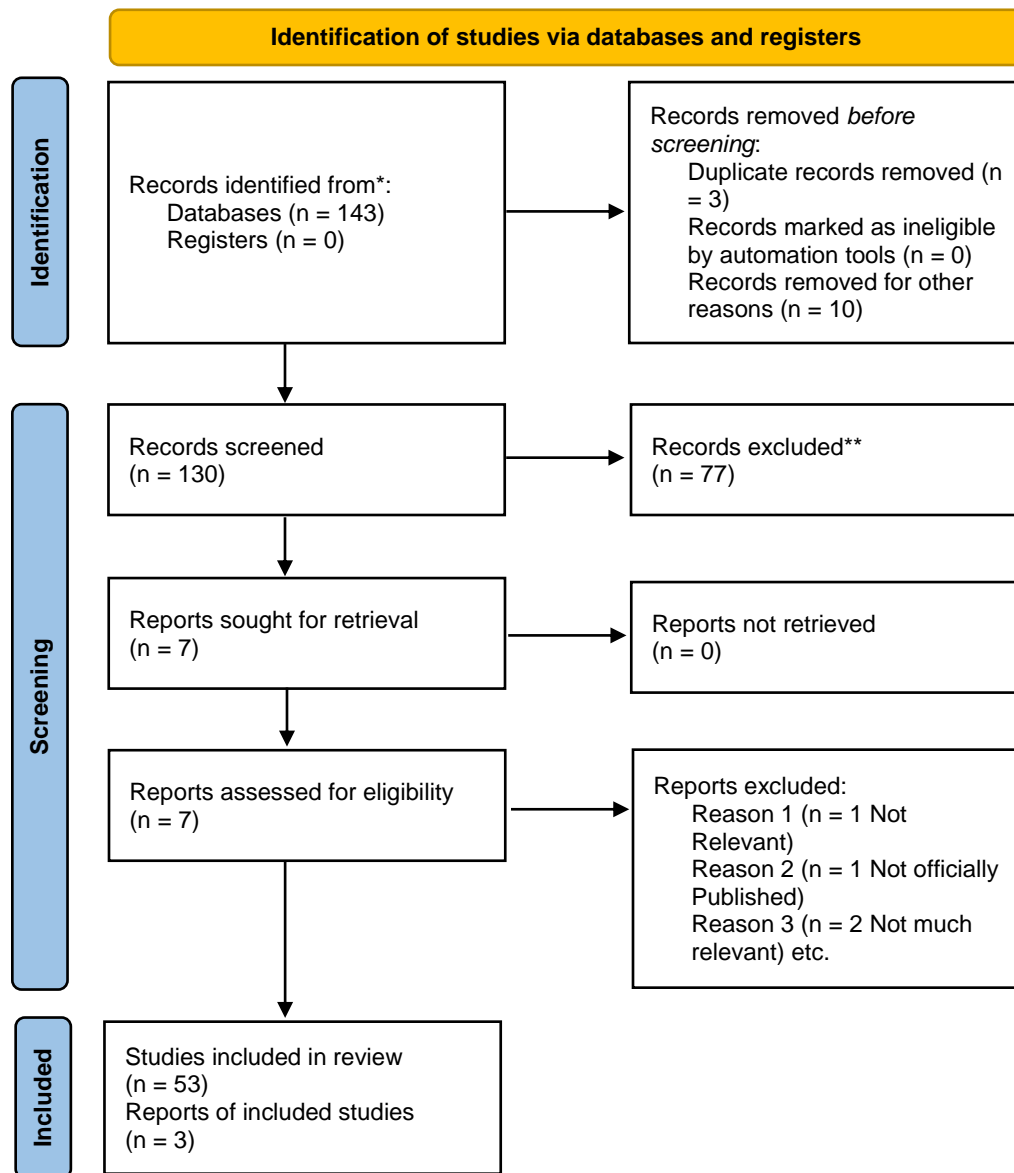
Figure 1: *PRISMA Framework for the Shortlisting of Relevant Research*
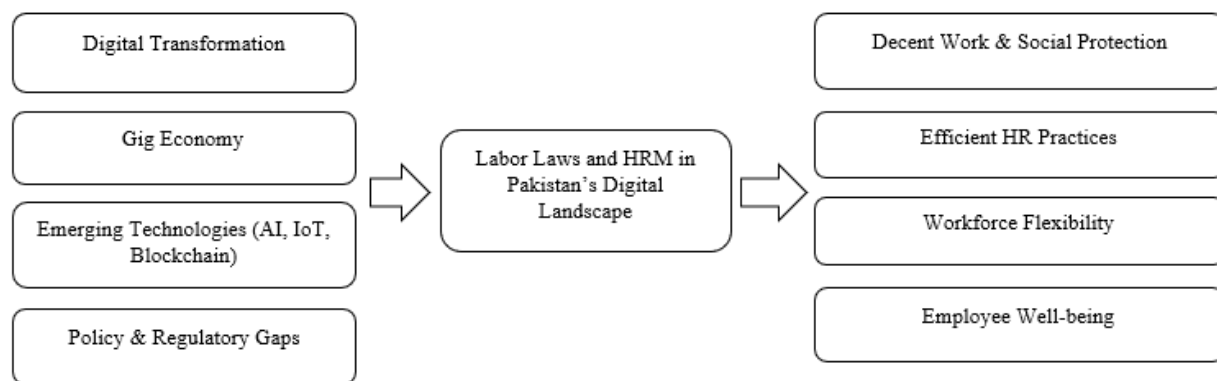
Source: Author's own calculations

4. RESULTS AND DISCUSSION

This systematic review aimed to examine labor laws in Pakistan with reference to the emerging digital HRM practices and their implications for digital employment, labor protections, and other policy measures for possible legal reforms to advocate for decent work. The findings of this study depict a significant gap between the current labor practices and the growing world of work

that is being shaped by digital transformation. Although, Pakistan has already sanctioned 30 pacts of the International Labor Organization (ILO) and follows key labor laws like the Factories Act (1934), Industrial Relations Act (2012), and the Shops and Establishments Ordinance (1969); but, all these were developed keeping in view the traditional, rulebooks of the industrial age (Akbar, 2024; Malik et al., 2020). As a result, they fail to cater the needs of the digital workforce, including gig workers, freelancers, and remote employees, who now make up a substantial share of Pakistan's labor market (Ali, 2023; Shahzad & Ahmed, 2025).

Figure 1: *Antecedents and Outcomes for Alignment with Labor Laws and Digital HRM*

Source: Author's own calculations

The study confirms that digital transformation is rapidly reshaping HRM practices, particularly in urban centers and within large private and multinational firms. Digital HRM tools, such as AI-based recruitment, online performance appraisal platforms, and cloud-based HR systems etc., are being used to modernize operations and enhance the employee experience. Over 60% of traditional sector firms now use digital platforms for hiring (Waheed et al., 2020). However, adoption remains low among SMEs, which represent over 90% of Pakistan's business sector, and struggle due to limited infrastructure and digital literacy (Ahmad et al., 2020).

Figure 2: *Graphical Timeline of 56 Studies (2010 to 2024)*

Graphical Timeline: Distribution of Studies (2010–2024)
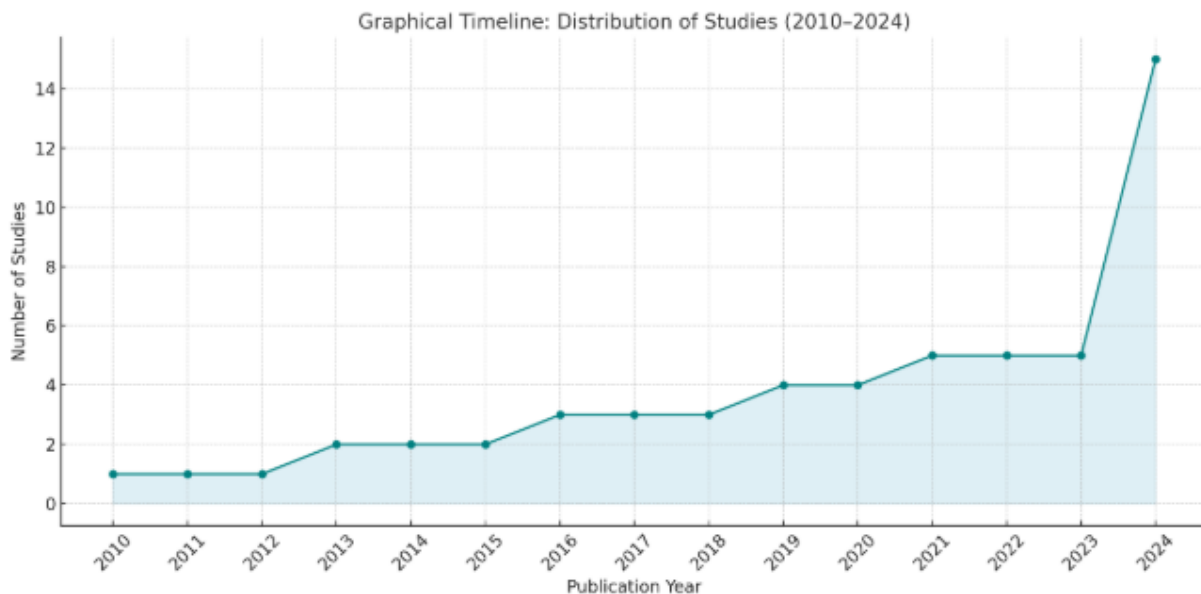
Source: Author's own calculations

The growing freelance economy, with over 1.5 million active freelancers, has positioned Pakistan among the top five global freelancing economies (Payoneer, 2022; Ali & Rizavi, 2020). Yet, these workers remain excluded from legal protection and benefits such as pensions, health coverage, and safe working environment (Hassan & Syeda, 2019). This legal invisibility undermines the first objective of ensuring regulatory relevance in the digital age. The second objective of this study was to examine the influence of digital technologies on HRM practices. It gets validated by the increasing shift to digital onboarding, remote work monitoring, and performance management. However, inadequate access to digital tools and skills, i.e., only 38% of workers have basic digital literacy; poses a barrier to inclusive transformation (Salimi, 2024; lsmail et al., 2023). Moreover, concerns about data privacy and unethical use of employee data persist, especially as the Personal Data Protection Bill (2023) is pending in the national assembly (Hanif & Ahsan, 2020).

Regarding the third objective, the study highlights split but notable reforms such as KP's Social Protection Policy (2022), Ehsaas programs, and Punjab's digitized labor inspection systems (Hassan & Syeda, 2019; lsmail et al., 2023). These indicate positive intent but fall short without

national legal reinforcement at the national level. The study recommends learning from India's Social Security Code (2020) and Estonia's digital governance models as viable examples for improving the current scenario of Pakistan's HRM-labor laws implementation.

Figure 3: *Word Cloud of Key Terms Used in the Text of this Study*

Source: Author's own calculations

4.1 Theoretical Implications

This study contributes significantly to HRM theory by contextualizing it within Pakistan's socio-legal and digital environment. Those Western HRM models that are often advocated in literature are at times not suitable for the ground realities of emerging economies like Pakistan having a growing size of informal workforce and institutional regulatory issues (Khan et al., 2019). Hence, there is a need for HRM frameworks that offer localized practice for better handling weak regulatory measures aligned with a deep understanding of the cultural aspects of the country (Malik et al., 2020; Mubarak et al., 2019). This study establishes the importance of stakeholder-based models, resource-based view, and institutional theory for a deeper understanding of the ground realities. Factors such as gender considerations, legal barriers, the gig economy, algorithmic management through AI tools, and informal contracts of employment determine the nature of the relationship between employer and employees in different ways (Shabeer et al., 2019).

4.2 Practical Implications

Current research provides useful insights for HRM professionals and labor law experts to align things with the new digital realities of the digital era. Remote work and freelancing along with the promotion of a digital work culture offer new challenges and opportunities for the stakeholders. New laws need to be developed for a better alignment with the existing HRM practices and HR professionals should better plan, coordinate, and adopt new digital technologies along with the digital trends of onboarding, training and development, record keeping, etc. (Ahmad et al., 2020). Moreover, HR professionals need to better address the issues of mental health at the workplace through interventions like medical & counselling facilities, training & development etc., and also the new legal reforms are required in this regard. The gig economy and remote work need to be addressed in the policy measures in a better way (Shahzad & Ahmed, 2025). Legal frameworks should mandate platform accountability, fair pay standards, and digital contract regulation through policy measures and service rules (Malik et al., 2020; Akbar, 2024Programs such as *Ehsaas* and *Kamyab Jawan* should incorporate digital literacy and HRM training, particularly for youth and women (Hassan & Syeda, 2019). Organizations, especially SMEs, should invest in scalable digital HRM platforms to streamline payroll, performance, and development processes. Hybrid work models, digital grievance redressal mechanism, and ethical gig work policies can boost productivity and employer branding (Waheed et al., 2020; Zaheer et al., 2023). Developing learning pathways for digital skills and soft skills is essential for talent retention and reverse brain drain for the development of Pakistan.

4.3 Limitations and Future Research Directions

This study is limited by its focus on Pakistan, which constrains its generalizability. Additionally, the review relies on existing literature and may not capture the most recent post-COVID developments in HRM practice (Ahmad et al., 2020). The qualitative, thematic nature of the study, while rich in depth, limits its capacity for broad quantification. Future research should include empirical studies on digital HRM adoption and the lived experiences of gig workers in Pakistan using phenomenological approach. More studies are needed to assess the impact of

policy interventions like social protection schemes or digital wage systems. For a deep understanding of HRM, it needs to be studied with cross-disciplinary work including economics, digital transformation studies, and sociology in the context of prevailing labor laws. Moreover, comparative studies of emerging economies with that of Pakistan can offer a deeper insight into better regulation and reforms of HRM.

5. CONCLUSION

The current study provided a detailed review of challenges and opportunities for human resource management (HRM) in Pakistan in context of existing labor laws and the implications for digital transformation. This study has useful implications for policymakers, practitioners, and HR professionals to align their initiatives in line with decent work, regulatory frameworks, and social protection in the age of digital transformation. Evidence-based strategy options may be exploited by the stakeholders of HRM in Pakistan if they understand the complexities associated with HRM. Moreover, a better alignment with the legal framework can ensure employee well-being, organizational effectiveness, and sustainable business development that may ultimately contribute to the socio-economic development of the country.

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