International Journal of Academic Multidisciplinary Research (IJAMR)
ISSN: 2643-9670
Vol. 9 Issue 12 December - 2025, Pages: 100-110

Human Resource Utilization in the AI Era and Post-Digitalization Economy: Redesigning the Job Roles

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Abstract : *Artificial Intelligence and digital transformation have revolutionized the strategies that are deployed by both public and private organizations to relate with their customers, and specifically how companies run their business, how they conceive their business approach and how they consolidate their operations. It is about integrating digital technologies, such as social, mobile, analytics and cloud, in the service of transforming how businesses work. Although it is important economy. Therefore, designing job roles in the post-automation economy is a strategic asset to businesses contributing to the competitive advantage of organizations. Thus, the entirety of this paper is centered on a more varied, more people-oriented with the responsibility of redesigning diverse, challenging jobs in the post-automation economy to keep the human element more active and to state that the incorporation of digital technology into business processes has become very imperative for the survival and competitive advantage of contemporary organizations, Human engaged in their work without redundancy. The paper strongly maintained that HRM is to assume more active roles in handling Resource Management (HRM) focuses on the performance of the organization emphasizing its role as a solution to business problems in the post-automation the post-automation, digitalization and the age of AI era in ensuring that the human element is skilled and knowledgeable to meet the needs of the evolving and dynamic organizations. The paper therefore calls for a critical quest for ingenuity in HRM that acts like a capacitating factor to challenge the tests of digitalization.*

Key Words: *Artificial Intelligence, Digitalization, Human Resource Management, Organization,*

1. Introduction

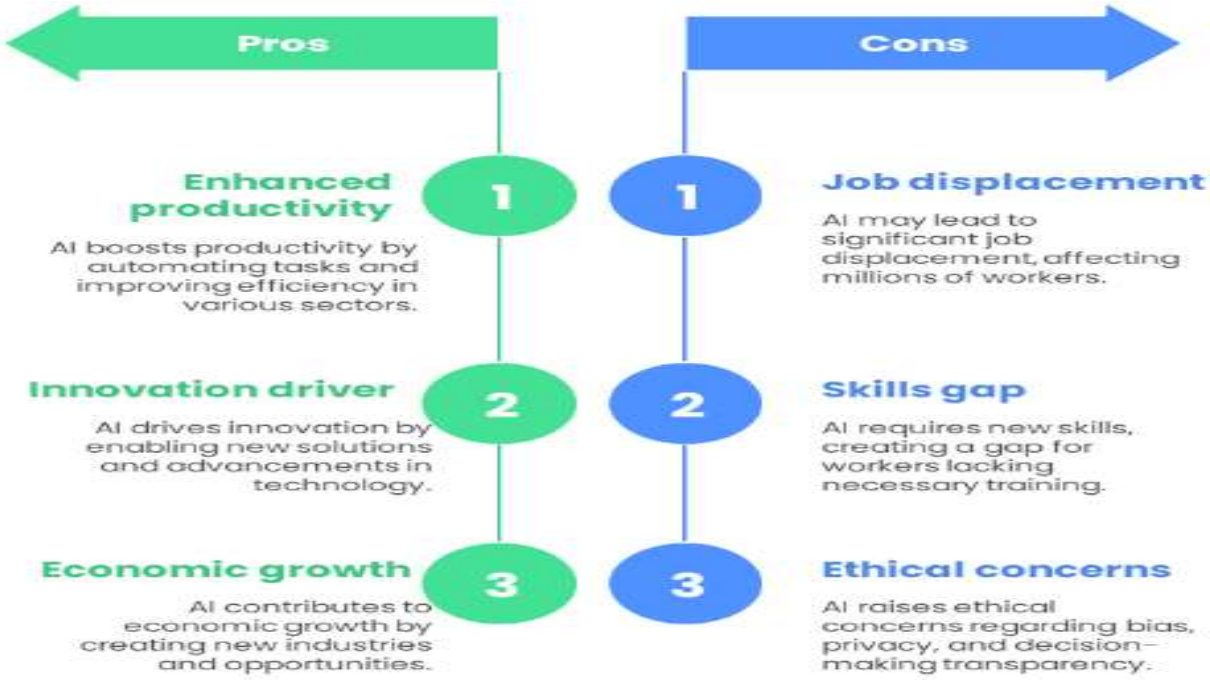
> What skills should an individual look to focus on and develop to succeed in the [AI and post-automation economy] age can be categorized into two groupings: Business Know-how (knowledge of business processes and operations in an industry) and Digital Know-how (knowledge on the usage of technology and communication platforms and devices) (Gouda, 2020).
>
> [Hence], technological advancement and the emergence of the internet are key drivers of organizational change and have led to many changes and innovations in work processes. For organizations to adjust to these technological advances, it is becoming ever more essential for their leaders to adjust their models and their culture to reap the benefits of these developments (Eurofound, 2018; Schwarzmüller et al., 2018 cited in Charles, Xia and Coutts, 2022).

Digital transformation that resulted in the emergence of Artificial Intelligence (AI) puts into question the traditional ways the HR functions are carried out in organizations. Hence, Bell et al. (2006) cited by Intelligence (2016) states that digital transformation has resulted in further implications for the role of HR, its capabilities and competencies in the 21st century. This accounts why Larkin (2017) argues that the change to the HR roles in digital economy has brought an all pervasive and omni-directional throughout every organisation. Manyika et al (2013) and Bharadiya et al (2023) said, it is necessary to provide a definition of the word "artificial intelligence" before analyzing the ways in which AI technologies are influencing the business sector. The phrase "Artificial Intelligence" is a generic one that may be used to describe any variety of computer software that participates in tasks that are analogous to those performed by humans, such as learning, planning, and problem-solving (Bharadiya et al, 2023).

Although many technological innovations made remarkable disruptions and transformation in world of work over the years, the AI emergence demonstrates its timeline in months and years. Thus, Shaji et al (2025) posited that the dawn of widespread AI adoption marks a pivotal moment in human history, comparable to the Industrial Revolution in its potential to reshape how work is done, life is lived, and societal value is redefined. In the complex organizational landscape, managing workforce diversity effectively has become crucial due to rapid technological advancements and shifting societal values. Hence, it is pertinent to state that in an increasingly competitive business landscape, human resource stands as a pivotal element for organizations seeking a sustainable competitive advantage (Means, 2017; Bolton et al, 2018; O'Donovan, 2020; Etemadi et al, 2024). Rapid advancements in technology and shifts in human behaviour have profoundly transformed societal values and priorities in the modern era (Talajić et al, 2024). Today's organizational leaders face the challenge of managing a workforce that spans diverse generational perspectives, each with unique motivational drivers and engagement preferences. The task is further complicated by the need to cater to both individuals who thrive under close supervision and those who prefer autonomy and independence in their work.

For instance, Shaji et al (2025) said**,** when Anthropic CEO Dario Amodei recently warned that up to half of all entry-level white-collar jobs could vanish, sending unemployment potentially soaring to Great Depression levels of 20%, he articulated a fear that haunts boardrooms and break rooms alike. This stark prediction emerges against a backdrop of contradictions. On one hand, there was a witness of AI systems composing symphonies, diagnosing diseases with superhuman accuracy, handling complex supply chains. On the other, we see companies like Clara retreating from full automation after discovering that artificial intelligence, for all its computational prowess, struggles with the nuanced, contextual decision-making that humans perform effortlessly. This paradox AI's simultaneous capability and limitation define our current moment and demands sophisticated responses.

Figure1: AI in the Workplace



Source: Shaji et al (2025).

Accordingly, the World Economic Forum (2016) and Shaji et al (2025) held that the numbers tell a story of transformation already underway. Globally, 14% of workers have been directly affected by AI implementation, translating to approximately 375 million individuals whose careers have been altered, redirected, or eliminated. Yet, this disruption is not uniformly distributed. It concentrates in specific sectors, affects women disproportionately, and varies dramatically by geographic region and economic development level. Understanding these patterns is crucial for developing effective responses. What makes this technological shift particularly challenging is its dual nature. Unlike previous automation waves that primarily affected manual labour, AI targets cognitive tasks the very activities that have long been considered uniquely human. It reads legal documents, writes code, analyzes financial markets, and even attempts creative endeavors. This cognitive encroachment forces us to reconsider fundamental questions about human value, purpose, and the nature of work itself (Shaji et al, 2025).

Smith and Fressoli (2021) asserted that tremendous research, policy, and investment is directed towards a new wave of automation in modern societies. Most notable within discourse for the Fourth Industrial Revolution, but also in radical ideas for Fully Automated Luxury Communism, automation appears essential to the future. Advocates claim it will renew capital accumulation, boost labour productivity, and extend managerial control in sustainable systems of production and consumption. Noting criticism about future essentialism in this automation advocacy, this essay will turn to innovations in marginal industrious spaces within industrial societies. Here people are hacking, subverting and appropriating ostensibly automating technologies for purposes of creativity, collaboration, and care (Smith and Fressoli, 2021).

2. The Methodology

A qualitative methodology was selected for this study since an in-depth understanding of the perceptions of HRM on their changing role in the post-automation and digitalization era is the aim of the research. Researchers decided that such in-depth understanding

could best be achieved. The study also discusses the Resource Planning, work design, reward management, training and development, performance management, selection and recruitment and the influence of digital transformation on business organizations.

The method used for discussion was thematic analysis with the aim of understanding the main themes and sub-themes of the study and to also address the links between such themes.

3. Statement of the Problem

> Digitalization is enormously changing the workforce: its size was reduced, as more and more tasks are automated, and an increasingly specialized staff is required for the remaining ones. Work environments have also been impacted by the phenomenon, which has completely transformed the way employees interact with each other, the information they use to perform their jobs, their attitudes toward their careers, and their expectations towards their employers. Many of these changes are due to new technological advances and to the increasing availability of HR data, and this trend is likely to increase further in the future (Di Prima and Ferraris (2024).

It is fundamental to argue that fast and continuous technological innovations have societal implications and continues to change the dynamics of organizations and job roles. This dynamic and ever-changing environment pressurizes organizations to relate swiftly to the quickly developing world driven by digital AI and innovations (Ma, 2023). Essentially, Blom et al (2019) noted that diversity management, focusing on developing and appreciating diverse ideas and building relations among diverse employees, and new electronic human resource management (e-HRM) approaches to employees, often leave employees feeling disrespected and indignant. Thus, instead of HR practitioners to harness the strategic roles of e-HRM towards value creation for people and organisation, e-HRM has taken a dehumanizing turn.

The drivers, directions, and impacts of human resource management in the era of digital transformation and post-automation has constituted a major study debate and calls for concerns among theorists and practitioners. Thus, Zhang and Chen (2024) propose that five factors which are not far-fetched from internal customer digital needs, industry digital innovation, competitor challenges, digital innovation governance, and digital era and post-digital period needs and these are major drivers of human resource management digital transformation. As Popa-Roman and Frunză (2024) noted, the introduction of Artificial Intelligence (AI) in the field of labour relations is a major trend in the current evolution of the labour market. This integration brings significant changes to the way organizations manage human resources and work processes. The pervasive influence of digitization has emerged as a formidable agent of change in management of resources thereby yielding profound ramifications for both public and private sector businesses across the board (Ma, 2023). It is important to therefore recognize that these technologies bring both opportunities and challenges, and it is essential to be aware of their ethical and social implications in the evolution of workplaces. The scale of AI's workforce impact defies simple categorization. While headlines proclaim either techno-utopian visions or apocalyptic job losses, the reality unfolds in complex patterns across industries and regions. This is because Artificial Intelligence (AI) is a field of computer science dedicated to creating systems capable of performing cognitive functions similar to those of the human brain, such as learning, reasoning, pattern recognition and decision making. AI includes subfields such as machine learning, natural language processing and robotics (Popa-Roman and Frunză (2024).

> The figure of 375 million affected workers represents not just statistics but human stories of adaptation, struggle, and reinvention. In the United States, 1.9 million jobs have been lost directly to AI adoption, concentrated primarily in sectors where routine cognitive tasks dominate. These losses span from call center operators in Phoenix to data entry clerks in New York, from basic financial analysts in Chicago to quality assurance testers in Silicon Valley. Each represents a disruption not just of employment but of identity, community, and economic security. China's experience offers a different perspective, with 1.2 million jobs lost primarily in logistics and basic manufacturing (Etemadi et al, 2024).

Suffice to state that AI powered systems coordinate vast supply chains, optimize delivery routes, and manage inventory with precision that human workers cannot match (Etemadi et al, 2024). The Yangtze River Delta, once bustling with logistics coordinators, now hums with algorithmic efficiency, its human workforce increasingly relegated to tasks requiring physical dexterity or complex problem-solving that AI cannot yet replicate.

India's IT services sector, long considered a bastion of middle-class employment, has shed 650,000 positions as AI systems take over routine coding, testing, and support functions (Etemadi et al, 2024). Bangalore's gleaming tech parks, once filled with armies of programmers handling repetitive tasks, now employ fewer but more specialized workers who design, implement, and manage AI systems rather than perform the tasks these systems now handle. The European Union presents a mixed picture, with Northern European countries experiencing more successful transitions through robust retraining programmes, while Southern European nations struggle with higher displacement rates and fewer alternatives. Germany's manufacturing sector, for instance, has managed

to integrate AI while maintaining employment through extensive worker retraining programs, demonstrating that policy choices significantly impact outcomes. (Etemadi et al, 2024) argued that AI significantly transforms recruitment practices, offering speed, efficiency, and a broader reach, it also presents unique challenges, such as technological adoption hesitancy, ethical concerns, and the risk of dehumanizing the recruitment process.

From the foregoing, Ma (2023) maintained that it is of utmost importance to approach the digital transformation process with caution, as neglecting its potential implications could result in unforeseen consequences that might impede the achievement of desired objectives. This as Grundke (2018) maintained remains apparent notwithstanding the abundant positive prospects that digital transformation and AI bring. Hence, it is paramount to meticulously identify and discuss the potential post-automation hazards concerning job roles, employment security, and human resource data accessibility. It is necessary to discuss and develop comprehensive strategies to mitigate or eliminate these future employability challenges.

4. A Review of HR Utilization and the Required Employability Skill-sets in the AI and Post-Automation Era

> Labour markets are already requiring more digital skills. In the United Kingdom and EU countries, more than three quarters of job openings require digital skills. In countries such as Australia, Canada, New Zealand, Singapore, and the United States, seven out of ten of all job postings in 2019 were in digital occupations. An increase in demand for a digitally competent workforce has been observed in China, Indonesia, Malaysia and Mexico. A study by the International Finance Corporation (IFC) has also revealed that more than 230 million jobs in Sub-Saharan Africa will require digital skills by 2030 (Charles et al, 2022).

The significance of employability skills in the AI age and post-automation period is increasingly emphasized in recent times because their emergence signals a new era in the global employment landscape, initiating substantial shifts in job structures, economic productivity, and the competencies required within current labour markets (Suarta et al., 2017; Gouda, 2020; Bory, 2023; Marlina, 2023; Shrivastava and Singh, 2025). These employability skills refer to a collection of necessary skills, capabilities, powers, and knowledge that is required for success in the modern workplace (Rahmil, 2014; Walwei, 2016). Suarta et al. (2017) stated that there are employability skills that are considered essential credentials for many job positions. According to the AMA (2010), digitalization of work has increasingly impacted the quality of work and employment in organizations, across all socio-economic strata and sectors in all continents of the world (Sabbagh et al, 2013; Jääskeläinen, 2015; Rainnie and Dean, 2020; Novikova et al, 2021; Popelo et al, 2021; Charles et al., 2022). Zhang and Chen (2024) analyzed the essence of the human resource management digital transformation, such as digital workplace, digital human resource management processes, and digital employee services. They further noted that digital human resource management processes refer to the implementation of selection, training and development, and assessment functions leveraging state-of-the-art digital technologies. Zhang and Chen emphasized that although digital transformation brings benefits for business development, its potential impacts cannot be ignored, including how the old and new human resource management systems are converted and the negative effects of the new system.

Kristoff et al., (2018), Fernandez and Gallardo-Gallardo (2021) and Ma (2023) studies asserted that HR managers face additional challenges in fully comprehending the intricacies of digitization, acknowledging these challenges, and developing methodologies that enable its managers to grasp the implications although it improves efficiency and quality within the organisation. Ma stated further It is important to recognize that the impact of digitalization extends beyond the mere digitization of specific processes. He said, taking a narrow view that solely focuses on the shift from analog to digital form neglects the broader ripple effects digitalization has on HRM and that HR managers must strive to develop a comprehensive understanding of the effects of digitalization to navigate these changes successfully.

Fenech et al (2019) found two main approaches to thinking about digital transformation by HR managers and the first approach is thinking about the role of HR in supporting the digital transformation era and the second approach is how such digital transformation has revolutionized HR day-to-day practices. Their study emphasized that HR is to take a more active role in contributing to the era of digitalization in ensuring that the human resource is skilled and knowledgeable to meet the digitalization needs of the present and future. In a similar development, Blom et al (2019) research revealed disconnectedness between e-HRM, individuals and groups, affecting efficiency and recommended further research to improve humanistic approaches for e-HRM implementations.

Mazurchenko and Maršíková (2019) claimed that digitalization in HRM helps enterprises to modernize HR functions and provides them with a competitive advantage and at the same time, it requires a change in working style and entails a change in the demand for HR competencies. Their research results show that HR professionals tend to be slightly reluctant to adopt technology although it is important and there is increasing demand for digital skills in recent years. According to Strohmeier (2020), the introduction of the idea of a strategic integration of digital technologies ("digital HR strategy") and in its corresponding effect further develops the concept of the digital transformation of HRM and marks a conceptual and further evolutionary step in conceptualizing technology-based HRM.

Murugesan et al (2023) addressed the application of AI concepts in various possible areas of HRM. These areas may not be there in the regular stream of activities. Still, it is trying to impose the importance of addressing the same dimensions measured that showcase human aspects enhancement with the help of AI. Fox (2018) and Jain (2021) traced the origin of digitalization to Information and Communication Technology (ICT) which led to the emergence of "AI, advanced robotics, widespread connectivity, the Internet of Things (IoT) and big data, augmented and virtual reality, wearables, mobile devices and online-platforms." Jain added that these platforms have provided critical services to all strata of the society and sectors of the economy. Moreover, they are likely to create structural and systematic fundamental impacts on the nature and location of work over the next decades.

Kucera (2017), Vardarlier (2019), Vahdat (2022) expounded in their work that rapid developments in the internet technology is dictating and also diversifying the sustainability, understanding and operation of HRM and this situation has made most of the work done by the human resources department to be carried out in the digital media leading to the emergence of the concept of Digital Human Resources Management (Digital HRM) due to this transformation. the use of digital applications in human resources management of enterprises. He reflected and elaborated on the digitization of human resources processes. Therefore, an employee who wants to preserve his/her employability needs to provide value to their employer and show progress in building up knowledge and skills as stated in the table below.

Table 1. List of Employability Characteristics

Personal Qualities	Core Skills	Process Skills
Self awareness	Reading Effectiveness	Computer Literacy
Self confidence	Information Retrieval	Commercial Awareness
Independence	Language Skills	Political Sensibility
Emotional Intelligence	Self Management	Ability to work cross culturally
Adaptability	Critical Thinking	Applying media technology
Stress tolerance	Creativity	Coping with complexity
Initiative	Listening	Teamwork
Willingness to Learn	Written Communication	Prioritizing
Reflectiveness	Oral Presentation	
	Explaining	
	Global Awareness	

Source: Yorke and Knight (2006) cited in Gouda (2020).

AI supports human intelligence and inventiveness rather than replacing it. AI can process and analyze large amounts of data quicker than a human brain, but it struggles with basic tasks. From the foregoing, we deduce from literature that the current and future world of work require the following skills and these are:

i. Research, development and innovation, critical thinking, problem-solving, collaboration, and communication,

ii. Digital media literacy for the development of programming software, design applications and management of networks are vital for employability,

iii. ICT complementary skills to manage the social media marketing and networks, to present brand products on online platforms, and for "programming and application development, business intelligence and analytics, web development, database administration, middleware and integration software, social media management, cloud and distributing computing" (The Organization for Economic Cooperation and Development, 2015).

iv. Proffering of solution to complex problems, comprehensive judgment and fast decision-making capabilities

v. Possession of cognitive flexibility and emotional intelligence for negotiation, talent management, rational behaviour exhibition and qualitative productivity;

vi. Business' operations management and strategic planning with the basic functions of marketing, sales, financing, and rudiments of rightful decisions on resources allocations (human and material), and

vii. Customer Relationship and Service Management orientation are the key skills needed.

5. AI Strategies and Its Revolutionary Roles in HR Utilization

Bharadiya et al (2023) argued that Artificial intelligence (AI) is causing a revolution in business as well as the economy and society as a whole by changing the interactions and relationships that exist between stakeholders and individuals. The roots of artificial intelligence may be traced back to mythology from ancient Chinese, Greek, and other civilizations, where it was believed that automatons have true brains and were able to think and experience emotion. This is where the concept of artificial intelligence first emerged. However, according to Nilsson, the term "artificial intelligence" was first used in public during a workshop held in 1956 at Dartmouth College in the United States (Nilsson, 2009).

Consequently, digitalization affects job functions within Human Resource Management more than just through facilitating daily administrative work (Fedorova et al, 2019; Zavyalova et al, 2022; Ma, 2023; Zhang et al, 2024). The use of technology facilitates the actual HR functions (functions addressed in this study are: Human Resource planning, recruitment and selection, performance management, reward management, health and safety, employee relations; work design) however has also added new demands on the HR function as the latter ensures that the human resource in the organization is one that is aligned with the strategic needs of a digital era. There are emerging trends in the way of integration into the field of labour relations. The following are identified trends according to Popa-Roman and Frunză (2024).

i. **AI assisted recruitment and selection –** Many companies use AI algorithms to evaluate CVs and identify potential candidates. These systems can analyze thousands of CVs in a much shorter time than a human team could, thus identifying candidates who best fit the job requirements.

ii. **Automating recruitment and onboarding processes** – AI can be used to automate certain steps in the process of recruiting and on-boarding new employees into the organization. For example, AI-based chatbots can answer frequently asked questions from candidates or new employees and facilitate the process of filling in forms and documents.

iii. **Data analytics for HR decision making** – AI can analyze data on employee performance, absences, feedback and other relevant information to provide insights and recommendations for decision making in recruitment, retention and development.

iv. **Employee development and training –** AI systems can identify employee training needs and provide customized recommendations for skills development programs. They can also be used to provide individualized training or to create learning content tailored to the needs and preferences of each employee.

v. **Monitor and improve employee engagement and satisfaction** – Using AI technologies, companies can monitor employee sentiment and satisfaction levels by analyzing feedback received in various forms, such as engagement surveys, reviews or informal conversations. This information can then be used to identify factors influencing engagement and implement measures to improve the employee experience.

vi. **Implement virtual employee assistance systems –** AI-based virtual assistants can provide support to employees in a variety of areas, such as managing time and schedules, accessing information about company benefits and policy, or resolving other administrative questions.

vii. **Performance evaluation and employee feedback** – AI systems can be used to evaluate employee performance based on objective criteria and automated feedback generated by specialized software. This can contribute to a more objective and consistent evaluation of employees, reducing the potential for subjective bias.

viii. **Forecasting for workforce planning** – Using historical data and predictive algorithms, AI can help anticipate staffing needs and strategic human resource planning. This may involve estimates of staff turnover, recruitment needs and other workforce management issues.

ix. **HR decision support** – AI can be used to provide support in HR-related decisions, such as setting compensation and benefit levels, identifying potential for promotion or transfer, or even in managing employment conflicts.

x. **Protection against discrimination and bias** – An important concern in integrating AI into the field of labour relations is ensuring ethical and fair use of technology. Companies need to be careful not to perpetuate or amplify existing biases in the data or algorithms used to make HR decisions). The introduction and use of AI in workplaces brings with it certain risks and disadvantages for employers and employers. It is important that they are aware of these issues and approach the implementation of AI in a balanced and responsible way, considering both the benefits and the associated risks.

6. The Necessity of Emerging Strategic Roles

HR departments globally are facing a challenging period of transformation; it is important to take advantage of the opportunities arising from the its numerous innovative solutions as well as to deal with increasingly abundant and complex difficulties. Therefore,

Di Prima and Ferraris (2024) posited that HR department members must not miss the important opportunity for professional growth offered by digital transformation. Despite the obvious difficulty in adapting to this relatively recent phenomenon, which to be fully exploited requires skills that until now were not required to them, HRs will have to work hard to claim the legitimacy of conducting operations with a new data-driven approach, developing the necessary skills. This should therefore not be seen as a complication of their duties, but as the long-awaited opportunity to finally consolidate the strategic importance of the function.

The introduction of computers in every field of life as the ever-expanding and widespread communication technology, cause significant changes especially in business life (Vardarlier, 2019). With the internet and technology changing our lives radically, this change has also affected the management forms of enterprises significantly. Ma (2023) stated that the continuous advancement and transformation of information and communication technology (ICT) have significantly enhanced and facilitated the expansion and development of human resource management (HRM) practices. Ma argued that this progress has profoundly impacted various aspects of HRM, such as how organizations attract top talent, streamline selection processes, foster employee motivation, and implement effective retention strategies. Kaur (2013) gave the objectives of e-HRM in six dimensions represented in figure 2 below.

Figure 2: Objectives of E-HRM

Source: Kaur (2013).

Therefore, Artificial Intelligence supports human intelligence, intuitiveness, and inventiveness rather than replacing it. AI can process and analyze large amounts of data quicker than a human brain, but it struggles with basic programmed tasks. Although AI is also revolutionizing Customer Relationship Management (CRM) systems, it transforms a CRM system into a self-updating, autocorrecting relationship management system. In essence;

i. with automation processes it increases job output,
ii. through the high rate of improvement service provision is consistent,
iii. data driven and informed decision-making, and
iv. New market discovery for emerging products and services.

From the foregoing, Jain (2021) argued that the global trends of increasing digitalization and the use of AI in organizations, additional skill is required by labour unions and associations to uplift their capacity development "when these trends impact their organizations and trigger the implementation of drastic organizational changes." Consequently, the urgent need for the employers to redesign job roles for the organisation stems from the impending negative impact of digitalization and AI on the organization and its employees. We therefore submit the following as recognized striking negative impacts and these are:

i. Automation, digitalization and AI downsizing of tasks and functions, will produce fewer jobs and jobs becoming less skilled. This technological menace started since the early millennium and "has also brought about the looming possibility of mass job displacement, untenable skills shortages and a competing claim to the unique nature of human intelligence now challenged by artificial intelligence" (WEF, 2020a in Charles et al, 2022).

ii. The full adoption of digitalization and AI in organizational job performance exacerbate unfair treatment, discrimination, and socio-economic inequalities, as employees and customers with a limited or without access are denied. "While the

flexibility of digital work is often celebrated by those that need it, this narrative tends to ignore those who are excluded from accessing decent work, including people who are not able to work full time or at fixed times." advanced technological

iii. Incessant skills scarcity could benefit more than the others with more limited skills or access. "It is found that 57 per cent of the enterprises in the EU reported difficulties finding ICT specialists in 2018. Around 30 per cent of the EU's active labour force has no or only moderate digital skills. Similar trends are found in other countries such as Brazil, China, Indonesia and Mexico. The gap between supply and demand of digitally skilled labour force is also significant in Sub-Saharan Africa. In the Gulf Cooperation Council (GCC) countries, although there is a growing trend towards more skills, professionals with emerging technologies such as big data, analytics, cybersecurity and cloud computing remain scarce. As highlighted by the Global Commission on the Future of Work, these new forces are transforming the world of work by changing who works and when, and how work is organized and managed" (Hagel and Bersin, 2017; ILO, 2019; Charles, 2022).

iv. Huge capital requirement and costs in continuous human resource development and significant investment in hardware, software constitute a heavy financial burden for the organization.

v. Employers lose partial or absolute control and autonomy over processes and decisions when using external or satellite-based AI systems, which can affect operational flexibility.

vi. There is vulnerability of the system to technological risks as in technical faults and failures which can results in operational interruption and over-reliance on technology.

vii. Privacy and security vulnerabilities may be compromised and this increases the risk of security breaches and exposure of sensitive data, which may lead to the damaging og the organization's image and credibility among customers and business partners.

viii. There will be frequent labour-management unrest following employees' resistance to organizational change as a result of the fear for job loss or changes in the way work is done and supervised.

7. The Concluding Remarks and Recommendations

In conclusion, the introduction of AI to workplaces brings both significant opportunities for increased efficiency and innovation and threats from job loss and technological vulnerabilities. It is essential that employers approach these challenges with a proactive attitude and adapt their strategies to maximize the benefits and minimize the risks associated with this technological evolution. To maximize the benefits and minimize the drawbacks of introducing Artificial Intelligence (AI) in the workplace, employers and employees should adopt a number of practical practices and strategies by which they can maximize the benefits and minimize the risks associated with introducing AI in the workplace, contributing to increased operational efficiency and employee satisfaction.

Thus, they need to be aware of the adaptation and investment in training and professional development to remain competitive in the market. At the same time, it is crucial to pay attention to ethical and data protection issues in the implementation and use of Artificial Intelligence (AI) to ensure a safe and fair working environment for all employees.

The main reference for HR Professionals is that technology and human capital in organizations are seen more as working together in a synergistic effect resulting in sustained competitive advantage. HR is to assume more active roles in handling the post-automation, digitalization and the age of AI era in ensuring that the employees are skilled and knowledgeable to meet the present and future needs of the organizations. Therefore, we conclude with the following recommendations.

i. Employees should indulge in critical thinking and problem-solving, creativity and innovation, collaboration, and communication skills which are becoming increasingly important in today and tomorrow's global economy.

ii. Employees should develop skills in software programming, development and designing of applications, management of networks etc. and ICT complementary skills like social media marketing, communications on social networks, present brand products on online platforms etc. since many studies have proved that digital media literacy is vital for employability.

iii. Organisational Artificial Intelligence (AI) impact needs assessment and strategic planning to be developed, setting specific and measurable objectives related to operational efficiency, increased productivity and service improvement.

iv. Investment in human capital development, partnerships and collaboration to ensure that employers must ensure that employees are well prepared and trained to integrate in the post-automation economy through the provision of relevant training and professional development programmes. This is to situate their expertise and resources, and to accelerate the implementation of future job roles in the post-automation economy innovation process.

v. Continuous measurement and evaluation of AI systems, and their impact on operations and employees, adjusting strategies and processes based on results should be carried out.

vi. Organisational change management and employee involvement programmes should be emphasized on regular basis in the AI implementation process to provide opportunities for feedback and active participation and preparation for change.

vii. Social and Ethical Impact Assessment is necessary to assess impact of AI adoption within the organization and steps taken to prevent and address potential negative impacts on employees and the community.

viii. There should be encouragement for innovation, creativity, flexibility and adaptability should be the hallmark of employers and employees to respond to changes in the business environment feedback.

ix. The labour unions and other employee representatives should be involved in the AI implementation process and ensure that their interests and concerns are considered in strategic decisions.

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