

Better Catchment of Workforce for Elevating Workplace Performance Integrating AI – A Systematic Literature Review

OPEN ACCESS

Volume: 11

Special Issue: 1

Month: March

Year: 2024

E-ISSN: 2581-9402

Received: 23.02.2024

Accepted: 11.03.2024

Published: 22.03.2024

Citation:

Amaleshwari, U., and R. Shanmugapriya. "Better Catchment of Workforce for Elevating Workplace Performance Integrating AI – A Systematic Literature Review." *Shanlax International Journal of Management*, vol. 11, no. S1, 2024, pp. 215–24.

DOI:

<https://doi.org/10.34293/management.v11iS1-Mar.8100>

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Abstract

Combined team of skilled and unskilled employees refers Workforce in any organisation, being the key factor behind an enterprise significant growth integrated with Artificial Intelligence (AI) and Generative AI at various industrial sectors. Their overall development rolls on possible with the workforce existing with agility and ability to conduct difficult workplace tasks in a hassle-free, dutiful manner. Mitigating challenges are present within most organizations that even the leaders and legendary stakeholders face in establishing proper managerial strategic methods in successful maintenance of the workforce etiquettes with credibility. Human resources have a powerful and consistent momentum within them that creates more chaos in managing them, and that unique feature is creative thinking ability eventually. A general reaction of human minds regarding any change implemented in an organisation is to create resistance with equilibrium. Manager's prioritized commanding skill in human resource management technique is listening to employees' issues and suggesting options to help them cope with it in a simple way. The study has focused on conducting a systematic review of workforce management articles published in globally acclaimed management journals between 2018 and 2024. The articles' objectives vary, and the thesis papers contain various methodical approaches for deriving the concluding sections. On Summarising, the findings have covered different aspects, such as the enablers and barriers present within an organisation, and have significant relevance in workforce management. On the other hand, some articles have covered the impact of human psychology in managing a workforce containing people from different cultures and boundaries. The role of leadership is significantly important in managing the workforce. Eminent workforce maintenance is directly associated with improving the employees' job satisfaction post recruitment, effective participation in enforcing workplace regulations, and the human resource management system integrated with AI.

Keywords: Generative Artificial Intelligence (AI), Workforce Management, Team Development, Profitability, Human Resource Management (HRM), Resistance Among Employees, SMART Goals

Introduction

It is strongly convincing that combined team of skilled and unskilled employees refers exceptional Workforce at various industrial sectors, being the key factor behind an enterprise significant growth integrated with Artificial Intelligence (AI), its Supporting tools, Human Resources analytics and strategies in Workplace perfection is based on the better performance of the workforce associated with the organisations. HR has undergone a wide transformation traditionally and digitally in recent years. The two major aspects of the workforce are enhancing the ability to accommodate the rapid digitalisation changes and ensuring proper talent management helps in creating a niche in their overall performance as an individual and enterprise level. Perspective of job creation (JD) for any desired role though a tedious task Artificial Intelligence (AI), has the potential to enhance productivity and efficiency across industries with efficacy, leading to the creation of new roles that require influential human intelligence, strong algorithmic foundation through Machine Language (ML), creativity, and emotional intelligence, a conglomerative areas where machines currently fall short. Samrat Ray¹⁶, et al, 2024, NATURALISTA CAMPANO, ISSN: 1827-7160, Volume 28 Issue 1, in their article mentions that, “being a potential game changer, integration of AI has undergone pivotal changes in HRM there by automating and streamlining consistently”. In general, HR based processes, ensuing in increased efficiency, accuracy, and cost cutting for organizations. Furthermore, the integration and enabling AI in HRM involves several crucial challenging phases including sudden job displacement, Data privacy and information security concerns, thereby reducing user autonomy. Moreover, partially trusted AI in HRM culture, accurately evaluates overall performance, could lead to negative aspects and attitude of technology associated with implementations. Managing the internal forces associated with the performance level of the employees and the total organisation denotes improving workplace performance. The most important element of the workforce is the employees of an organisation. Proper maintenance of the workforce provides the maximum potentiality of the employees, improves the way of performing their duties toward the organisation, and helps to achieve the future goal of a particular organisation. Preparing proper route maps for big projects, maintaining SMART goals to achieve future perspectives, and improving the technological inclusions in the workplace help maintain the workforce properly. Various multitasking aspects are associated with the projection of the workforce to elevate employees’ performance levels and improve an organisation’s culture. This article aims in assessing the effective workforce catchment, post recruitment, overall performance in an organisation. This study also draws a comprehensive literature review and systematically synthesizes the present scenario of AI in HRM thereby providing insights recommending for successful AI implementation in HR process accountably effective. Finally, on summarising the Review of Literature through the shared conceptual knowledge-based researchers, scholars, learners, and available secondary sources from internet and journals, the paper concludes with a compromising and convincing discussion of the suggestion and the futuristic direction along the pipeline eventually for further scalable research.

Objectives

- To enhance the workforce while integrating Generative AI (GAI) at various industrial sectors
- To analyse the factors impacting the maintenance of the workplace implementing AI
- To discuss the strategies associated with the management of workforces in the organisation through available literature review
- To investigate the enablers and barriers to implementing an effective workforce for achieving future goals implementing AI
- To identify the role of the workforce in the maintenance of the performance level of the employee.

Research Methodology

Every research study depends on procuring proper methodical progressive approach development to meet the study objectives. The particular study has focused on developing the condition of the available information sets about the importance of the workforce in an organisation. A systematic review of the existing articles about the topic is done in this study, and 15 articles are chosen for review. Some important keywords are initially selected from the objectives for searching the internet. A journal search was conducted using Google Scholar using the keywords. The time limit is set between “2020-2024” for choosing the articles. Articles have been selected based on their relevance regarding the main study area. A table is made using columns like “Title”, “Author’s name”, “Objective”, “Methodology”, and “Findings”, where the searched articles are reviewed one by one. They are compared with each other to derive their difference regarding generated results and create an idea about various aspects of workforce management.

Systematic Literature Review

No.	Author Name	Title	Objective	Methodology	Findings
1.	Lowe et al., 2023	“Centering work: Integration and diffusion of workforce development within the US manufacturing extension network.”	To Implement strategies that promote a long-term transformation for high-quality jobs.	This study used a mix of secondary and primary data sources to develop the current approach to workforce development through the interview analysis process.	This study draws attention to the market force and its policies in the US, from the federal to local level, while working in a revitalised industry. The importance of technological absorption, the resilience of the supply chain, and skill formation are steps for structuring the job quality, especially for SMEs.
2	Brown et al., 2024	“Positive tipping points for the sustainable growth of bivalve shellfish mariculture in England and Wales”	Shellfish Mariculture, a sustainable food production company, explores the potential under the PTP framework to help stakeholders, including regulators and policymakers.	This research uses a mixed-method approach, combining qualitative and quantitative data analysis processes. Statistical modelling and qualitative interviews are used to understand stakeholders’ perspectives influence growth.	The study examines the key factors that facilitate sustainable growth in bivalve shellfish mariculture in Wales and England. It shows that effective management activities, favourable environmental conditions, and Stakeholder engagement are necessary for industry viability and resilience.

3.	Bozkurt et al., 2024	“Multinational firms as emissaries of decent work: worker responses to progressive HRM in a foreign retailer in Japan.”	The study aims to examine the workforce’s response to the progressive HRM (human resource management) practices that multinational companies in Japan have implemented.	This research uses qualitative and quantitative data based on the workers’ experiences with change. Initiative. This research also surveyed with questions and an interview to explore the participants’ experiences, perceptions, and attitudes regarding HRM practices.	Most workers vote positively for the firm’s progressive and effective HRM practices. These practices help increase organisational commitment and job satisfaction, improve employees’ work-life balance, and help the firm gain support and belief in the multinational firm.
4.	Taj and Zaman, 2022	“Towards Industrial Revolution 5.0 and Explainable Artificial Intelligence: Challenges and Opportunities.”	This study explores the opportunities and challenges faced in IR 5.0 (Industrial Revolution 5.0) for future industry development and identifies areas where the implementation of advanced technology can help.	This research uses a mixed methodology approach, combining the expert interview and literature review. The data analysis process involved thematic analysis to identify the patterns and themes recurring from the interview and literature review portions.	This research highlights some major challenges faced by IR 5.0 in adopting new and advanced technologies like trust, transparency, and accountability for AI systems. Thus, the research also illuminates the opportunities of technologies that ensure the ethical deployment of AI.
5	Loske et al., 2021	“Logistics Work, ergonomics and social sustainability: Empirical musculoskeletal system strain assessment in retail intralogistics.”	To understand the relationship between social sustainability and ergonomics, logistic work, through the system of empirical musculoskeletal, relies on manual labour through the strain assessment into retail intralogistics. Under this strain experience, retail intralogistics implements and sets the implications process for social and health sustainability.	For this research study, the mixed method approach is used, which combines the quantitative analysis system for strain assessment of the musculoskeletal system and the qualitative analysis system approaches the implementation of social sustainability and interviews for gathering the data on ergonomic work conditions.	The study finds the strain level in the musculoskeletal system among retail intralogistics workers, highlighting the need for ergonomic interventions to mitigate health risks while enhancing social sustainability. The study also helps identify ergonomic factors and their contribution to improving the condition of work by prompting social sustainability and worker well-being in the intralogistics retail sector.

6.	Abdullatif Ibrahim et al., 2023	“Enhancing Nurses’ Well-Being: Exploring the Relationship between Transformational Leadership, Organisational Justice and Quality of Nursing Work Life”	The study focuses on enhancing the well-being of nurses and investigating the Relationship between Organizational Justice, transformational leadership, and nursing work-life quality. It examines the factors that influence and interpret nurses’ perceptions of the overall work environment and quality of life.	This study’s approach utilised Quantitative data analysis designed using a questionnaire survey to collect data about the healthcare setting from the nurses’ employees. The survey also assessed triform leadership behaviour while assessing the perceived organisational norms and work-life quality of nurses. The statistical analysis technique helped examine the variable and its impact on the well-being of nurses.	This work finds a different correlation between organisational justice, transformational leadership, and nursing work-life quality. Nurses with higher transformational leadership have higher job satisfaction. Nursing work-life quality helps to meditate on the relationship between organisational justice, transformational leadership, and nursing work-life quality. This study also highlights the importance of fair practices in the organisation and supports leadership in enhancing the quality of nurses’ lives.
7.	Rotimi et al., 2023	“Migrant construction workers’ demography and job satisfaction: A New Zealand study”	To find the correlation between the migration construction workforce’s demography and job satisfaction, the demographic factors include experience, education, gender, age, and ethnicity, which influence the conversation worker job satisfaction measure.	This research approaches a qualitative analysis process by utilising survey questionnaires to Collect data. The survey has different demographic-based questions, and the scaling system helps measure job satisfaction. The statistical analysis technique helps to find the relation of the employee of different demographic variables and their job satisfaction level.	The research helps to find the demographic factor, which includes experience, education, gender, age, and ethnicity, that directly influences the job satisfaction measure among English migrant construction workers. It was also found that older workers with a greater amount of experience reportedly have a higher level of job satisfaction. The study findings approach insight into the demographic landscape, directly impacting workforce experience and well-being.

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8.	Khare et al., 2021	<p>“Measurement of transit-oriented development (TOD) using GIS technique: a case study”</p>	<p>To examine the calculation of transit-oriented development (TOD) using the techniques of Geographic Information Systems (GIS). This study provides insight into the effectiveness of GIS by analysing different TOD aspects. The TOD aspect also includes the transportation infrastructure, public transit accessibility, and land use pattern.</p>	<p>This research is on the station-level TOD on the quantitative scale, while the MCE result also shows the value of quantitative data analysis. The field observation and interview provide qualitative insight into the implications of the GIS-derived measurements.</p>	<p>The research demonstrated the use of GIS techniques in assessing and quantifying. It identifies the proximity of transit nodes through accessibility and a mixed pattern of land use. The finding highlights the importance of GIS tools in development strategies and urban planning to promote community design and sustainable transportation.</p>
9	Fiorentino, 2023	<p>“Public-led shared workspaces and the intangible factors of urban regeneration in the UK coastal towns”</p>	<p>The research aims to investigate the public-led role in which shared workspaces contribute towards revitalising coastal towns through tangible economic like infrastructure and job creation.</p>	<p>The research goes through the qualitative data analysis process, the document analysis process and the interview process. Focus groups were also explored, and a shared understanding of the urban regeneration of coastal towns was facilitated. The analysis process of the document involved policy, which focused on the reports for contextualisation findings.</p>	<p>The study revealed that the public-led workspace is major in fostering social cohesion, cultural generation, and community engagement. The spaces also serve residents, and networking, knowledge exchanges, and collaboration foster the residents’ belonging. They also contributed to the diversification of the vibrancy under the coastal communities.</p>
10.	Yüksekçiyıldız, 2024	<p>“Analysis of Internal and External Factors Affecting Liquid Chemical Cargo Port Efficiency”</p>	<p>Analyse the external and internal factors influencing liquid chemical efficiency in cargo ports. The research understands and identifies the factors affecting performance and operations to provide efficiency in handling cargo liquid chemicals.</p>	<p>The research approaches through mixed-methods, combining quantitative analysis and qualitative data analysis. Quantitative methods also involve data collection on KPIs like cargo throughput, turnaround time, and berth occupancy. This qualitative method of data analysis uses statistical techniques to identify patterns and trends in port efficiency.</p>	<p>The study helps to identify the range of internal and external factors that directly influence the effectiveness of “liquid chemical cargo ports.” The internal factors include equipment availability, operational process, and port infrastructure, while market demand and regulatory factors influence the whole workforce dimension. The finding also highlights strategic planning and proactive management while planning a proactive management system and its proactive management process.</p>

11.	Merritt et al., 2023	“Strategic foresight for water and natural resource management in Queensland”	The study objective is to analyse the development strategy by examining Australia’s natural resources and water management. Its objective is to determine the future challenges and opportunities under the resource management system while informing the workforce decision-making process.	This report uses a participatory approach by involving stakeholders from community groups, industry, and government. The typed analysis and workshop process was utilised to explore the potential based on future scenarios and key drivers. The method of data collection includes interviews, surveys, and a literature review process, which helps to gather insight by evaluating current trends.	The research identifies the scenario and discovers the potential for natural resource and water resource management. The emerging challenges everyone faces are the demand for resources and climate change. The study helps to find out the need, which underscores the integrated and collaborative approaches by ensuring resource management diversity under the long-term objective of stability.
12.	Venkataraman, 2023	“Employment Relations Past, Present and Future: Denise or Resurrection in India?”	The article focuses on examining the employment evolution in India by comparing present, future, and past scenarios.	The research was conducted using qualitative interviews and historical analysis in a mixed-method analysis process. The historical analysis highlights the policies and key events that helped shape employment relations in India. The literature review also evaluates the theories, while the qualitative interviews help the research by evaluating the roles and thinking of labourers, industry experts, and policymakers.	The studies’ findings relate to the significant shift of employment in India under technology, advanced globalisation, and changes in the dynamics of labour and workforces. The research identifies challenges like Segmentation of the labour market, precarious employment, and normalisation. The findings highlight future scenarios that influence the investment.
13.	Salman et al., 2021	“Assessment of engineering solutions for solid waste removal from irrigation canals in North Lebanon”	To evaluate the assessment of the different engineering solutions for removing solid garbage from the irrigation canal. This study aims to examine the effectiveness of the different engineering interventions to improve the canal system.	The research focuses on the laboratory analysis method and filed survey by focusing on numerical modelling.	The study finds the importance of management strategies for the whole team and regular maintenance by the labour force. Its insight into the need for community engagement and the collaborative stakeholders with the workforce led it to regulate and maintain a system of canals effectively.

14.	Kriebel et al., 2020	“Risk Factors for Retinal Detachment: A Case-Control Study”	The research aims to associate with the risk factor of retinal detachment. It aims to discover the potential variable that helps enhance the preventive measures for labour.	The research uses a statistical analysis process under logistic regression to assess the association by utilising the risk factor under the development of retinal detachment. The data analysis focuses on the qualitative nature, further analysed through the medical reports, questionnaire system and interview process.	The findings contribute to understanding retinal detachment aetiology, provide insights for preventive strategies, and help the workforce detect and conduct early procedures.
15.	Bonney and Grant, 2023	“Local health department engagement with workplaces during the COVID-19 pandemic—Examining barriers of and facilitators to outbreak investigation and mitigation”	The study aims to find the experiences and difficulties faced by the healthcare workforce during COVID-19 and evaluate the difficulties faced by “local health departments (LHDs)” at the workplace.	A thematic analysis was conducted in this research, which helped identify the key barrier affecting the entire LDH workforce.	The research evaluates several barriers that affected both the population and the healthcare workforce during the pandemic; these barriers include challenges to implementing the control measures, a lack of resources and PPE kits, and a lack of proper data and time to tackle the situation.

Conclusion and Suggestion

The detailed systematic review of the articles published in different journals has helped develop an idea about the role of workforce management at variety of industrial background that navigates towards innovative technologies, in maintaining the workplace atmosphere along with special mentions towards traditional HRM practices and implementing AI in enhancing overall performances. The most important factor that acts as the key driving force behind the motivation of employees is the involvement and performance with credibility and creative skill towards AI and ML methodically that includes market recognition level of the brand. The sustainability of the organisation depends on the mentality of the organisational employees combined with projects, skill; their innovative-adoption level is a significant performance indicator. Employee motivation depends on their recognition within the organisation and the strategic planning ability possessed by the leaders. Most workforce performance becomes significantly high due to the leader's ability to manage human resources significantly and provide them opportunities to show their expertise diplomatically. Workforce management is the biggest criterion for generating progressive profitability within an organisation. Managing the workforce is done in almost every organisation with proper credibility, but they need more sustainability in implementing the management methods efficiently with at most respect. The main reason behind this is the fear among employees of being unemployed due to change, especially innovative technological adoption. Motivational sessions must be conducted, combining all the technologically unaware employees to make them brave enough to handle new technology easily.

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