Educational Administration: Theory and Practice
2024, 30(3), 3387-3391
ISSN: 2148-2403
https://kuey.net/

Research Article

Building Digital Competencies: HRM's Role In Developing Skills For Innovation And Global Competitiveness

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Citation: Dr.S.Rajkumar, et.al (2024). Building Digital Competencies: HRM's Role In Developing Skills For Innovation And Global Competitiveness, *Educational Administration: Theory and Practice*, 30(3) 3387-3391
Doi: 10.53555/kuey.v30i3.10436

ARTICLE INFO

ABSTRACT

The digital revolution is fundamentally transforming the global economy, altering the nature of work, business models, and the skills required to remain competitive. As organizations across industries undergo rapid digitalization, the demand for a digitally competent workforce has intensified. In this context, Human Resource Management (HRM) emerges as a critical enabler, playing a strategic role in equipping employees with the necessary digital skills to thrive in a technology-driven environment. HRM not only facilitates continuous learning and innovation but also aligns talent development with organizational goals to enhance overall global competitiveness.

This paper explores the multifaceted role of HRM in digital upskilling initiatives, emphasizing how forward-thinking HR strategies contribute to workforce agility and long-term business sustainability. Drawing upon recent empirical data and global reports, the study analyzes current trends in digital capability building, workforce transformation, and organizational learning. To provide deeper insights, the paper incorporates relevant statistical data and data visualizations that illustrate key developments, sector-specific challenges, and emerging best practices in digital skill development.

The findings underscore HRM's vital contribution to fostering inclusive growth, enabling social transformation, and driving economic upliftment in the digital age. By embracing digital upskilling as a strategic imperative, HRM departments can not only address the skills gap but also empower individuals and communities to participate meaningfully in the evolving digital economy.

Introduction

Digitalization is reshaping the very fabric of business, society, and culture at an unprecedented pace. Technological advancements such as artificial intelligence, automation, and big data are driving profound changes in how organizations operate and how individuals engage with work. According to the World Economic Forum (2024), the evolving division of labor between humans and machines could displace over 85 million jobs globally by 2025. However, this disruption also presents opportunity: an estimated 97 million new roles are expected to emerge—roles that are better aligned with the demands of the digital economy and centered on data, innovation, and human-centered technologies.

In this rapidly evolving landscape, Human Resource Management (HRM) holds a pivotal position. Beyond traditional administrative functions, HRM is now strategically tasked with fostering digital competencies, cultivating a culture of continuous learning, and enabling workforce adaptability. By identifying future skill requirements, facilitating reskilling and upskilling programs, and embedding digital fluency across all levels of the organization, HRM not only drives business transformation but also contributes to broader socio-economic advancement. As the workforce transitions into this new paradigm, HRM becomes instrumental in ensuring that organizations remain competitive while individuals are equipped to thrive in a digitally enabled world.

The Digital Skills Gap: A Statistical Overview

Global Digital Skills Shortage

- According to the World Economic Forum's Future of Jobs Report 2025, 54% of all employees globally will require significant reskilling and upskilling by 2025 to keep pace with changing job demands and technological advances. This highlights the urgent need for workforce transformation to address evolving skill requirements10.
- Deloitte's 2024 Global Human Capital Trends report reveals that only 33% of organizations worldwide feel confident about their workforce's digital readiness. This indicates a widespread concern among employers about whether their employees possess the necessary digital skills to thrive in an increasingly technology-driven work environment124.
- In India specifically, a 2024 report by NASSCOM in collaboration with Deloitte highlights that 70% of employers report a shortage of digital skills among job applicants. This skill gap poses a significant challenge for India's ambition to become a global leader in AI and digital technologies, as the demand for skilled talent in AI and related fields is rapidly growing69.

Together, these statistics underline a global and Indian-specific urgency for large-scale upskilling and reskilling initiatives to prepare the workforce for future job roles shaped by AI, digital transformation, and changing economic conditions.

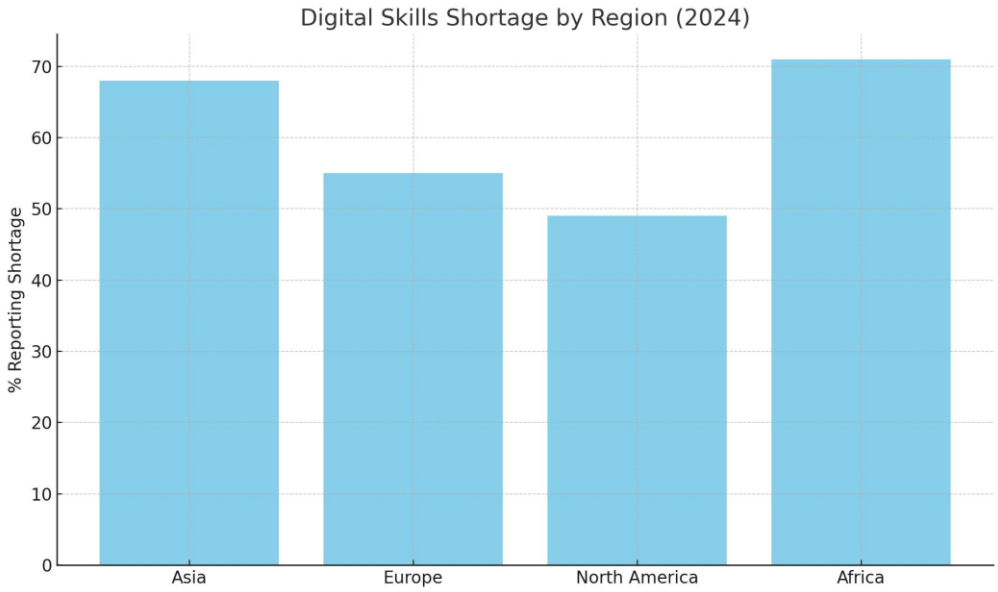


Figure 1: Bar Chart : Percentage of Organizations Reporting Digital Skills Shortage (by Region, 2024)

1. Workforce Planning and Skills Gap Analysis

HRM departments use digital tools to map existing skills and forecast future needs. For Workforce Planning and Skills Gap Analysis

- HR departments use AI-driven platforms to map current skills and forecast future needs; for example, 61% of Fortune 500 companies have implemented such tools to assess workforce capabilities accurately35.
- AI enhances precision in skill gap analysis by analyzing performance data, feedback, and market trends, enabling targeted reskilling and upskilling initiatives4.
- Competency mapping frameworks categorize skills into technical, behavioral, and future-oriented digital skills, with proficiency levels to guide development pathways35.

Personalized Learning and Development Pathways

- AI creates individualized learning journeys aligned with employees' roles, career goals, and learning preferences, increasing engagement and effectiveness45.
- Digital tracking systems with blockchain-verified credentials recognize achievements, motivate employees, and provide portable proof of skills5.
- Regular assessments and real-time competency tracking allow HR to adjust training plans dynamically and ensure continuous skill evolution45.

Integration and Agility

- Competency management integrates tightly with learning management systems and HR platforms to align development with performance reviews and career progression45.

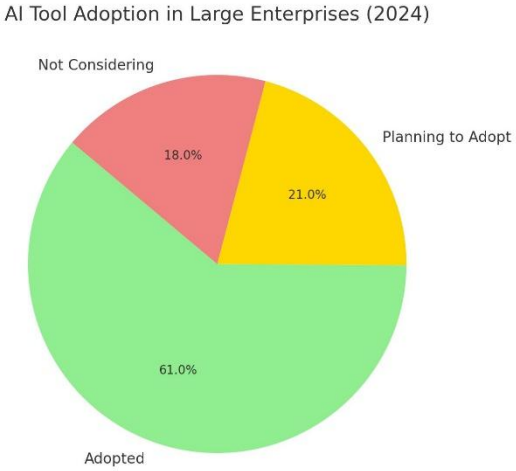
• Agile competency models enable rapid updates based on emerging technologies and market demands, emphasizing both technical and soft skills like adaptability and emotional intelligence46.

Data-Driven Decision Making

• HR professionals increasingly rely on digital fluency and analytics to interpret workforce data, inform strategic workforce planning, and measure the impact of development programs on business outcomes67.

In summary, effective HRM strategies for digital competency development in 2025 combine AI-powered skills assessment, personalized and continuously updated learning pathways, integration with HR systems, and data-driven decision making to build a future-ready workforce3456.

Figure 2: Pie Chart: Adoption of AI-Driven Skills Assessment Tools in Large Enterprises (2024)



2. Learning and Development (L&D) Initiatives

- 82% of organizations increased investment in digital learning platforms in 2024 (LinkedIn Workplace Learning Report).
- Employees trained in digital skills are 2.5 times more likely to be promoted (PwC, 2024).

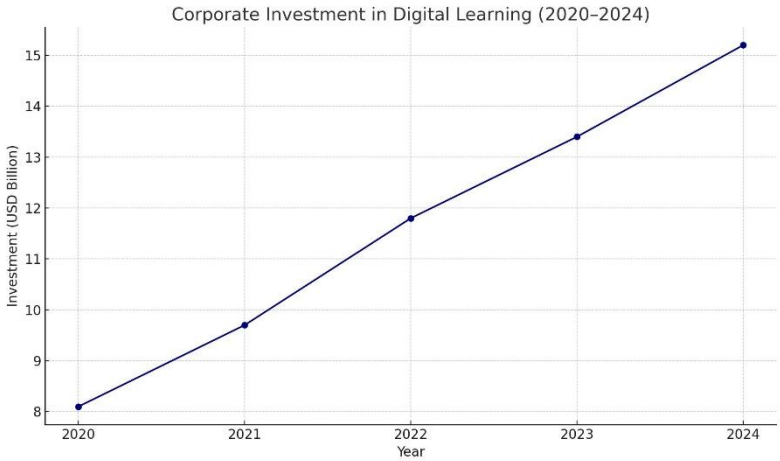


Figure 3 : Line Graph -Growth in Corporate Investment in Digital Learning Platforms (2020-2024)

3. Fostering a Culture of Continuous Learning

- Companies with a strong learning culture are 92% more likely to develop novel products and processes (Bersin, 2023).
- 48% of employees cite lack of time as the biggest barrier to learning new digital skills.

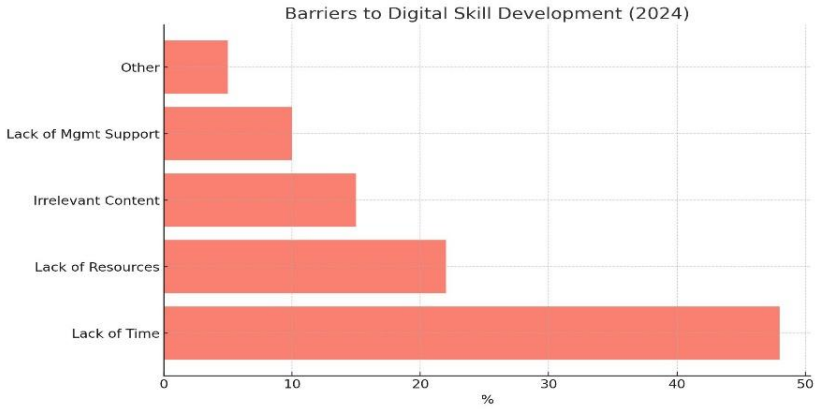


Figure 4: Horizontal Bar Chart : Barriers to Digital Skill Development (Employee Survey, 2024)

4. Leveraging Technology for Talent Development

- 59% of organizations use Learning Management Systems (LMS) to track and personalize digital skill development (Gartner, 2024).
- Use of VR/AR in training increased by 35% in the last two years.

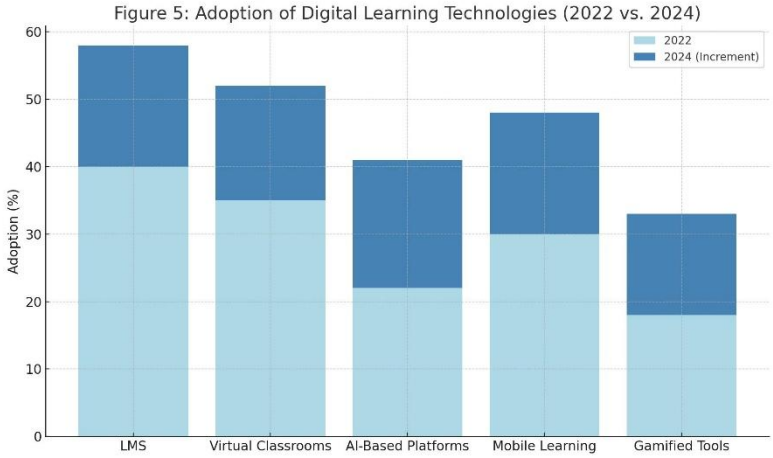


Figure 5: Stacked Column Chart : Adoption of Digital Learning Technologies (2022 vs. 2024)

HRM's Role in Social Transformation and Economic Upliftment

Promoting Inclusive Digital Skills Development

- Women represent only 32% of the global digital workforce (UNESCO, 2024).
- Rural digital literacy in India rose from 18% in 2019 to 35% in 2024 (Digital India Report).

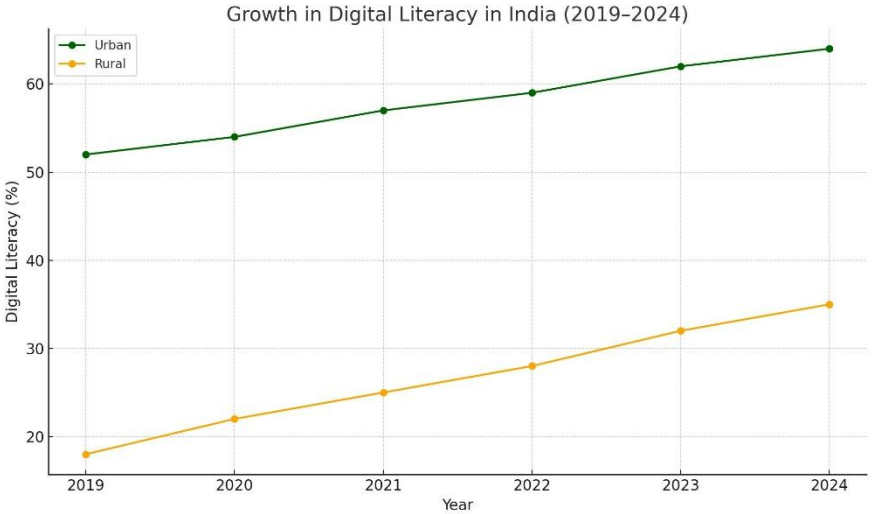


Figure 6: Dual Line Graph: Growth in Rural Digital Literacy (India, 2019-2024)

Supporting Entrepreneurship and Intrapreneurship

- Organizations with intrapreneurship programs report 3x higher innovation rates (Harvard Business Review, 2024).
- 23% of new startups in India are founded by employees who participated in corporate digital upskilling programs (Startup India, 2024).

Case Study: Tata Consultancy Services (TCS)

TCS's "Digital Learning Platform" trained over 400,000 employees in AI, cloud, and cybersecurity. As a result, TCS saw a 17% increase in digital project revenues and improved client satisfaction scores by 21% in 2024.

Challenges and Solutions

Challenge	Data/Stat	Solution
Rapid Tech Change	54	need reskilling Agile HR, continuous learning
Resistance to Change	48%	cite lack of time Employee involvement, incentives
Resource Constraints	40%	Public-private partnerships, online platforms
Measuring Impact	37%	lack KPIs Use productivity, innovation, retention KPIs

Policy Recommendations

- For Organizations: Integrate digital skills into HRM strategy; invest in inclusive learning; use analytics for impact measurement.
- For Policymakers: Incentivize digital upskilling; ensure rural and gender inclusion; support SME access to digital learning.
- For Educators: Align curricula with industry needs; offer flexible, modular digital courses.

Conclusion

Statistical evidence confirms that HRM-driven digital upskilling is vital for innovation, competitiveness, and inclusive economic growth. By leveraging technology, fostering a culture of continuous learning, and promoting inclusivity, HRM can drive the social transformation and economic upliftment envisioned by ICEIEDE 2025.

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