



Contribution Of Digital Human Resource Management Towards Organizational Performance

Ms Kirti Oberoi^{1*}, Dr Jhuma Saha²

^{1*}Research Scholar, MSMSR, MATS University, Raipur

²Assistant Professor, MSMSR, MATS University, Raipur

Citation: Ms Kirti Oberoi et al. (2024). Contribution Of Digital Human Resource Management Towards Organizational Performance, *Educational Administration: Theory and Practice*, 30(1), 6367-6371
Doi: 10.53555/kuey.v30i1.9712

ARTICLE INFO

ABSTRACT

Digital technologies are evolving so rapidly that it changed the Human Resource Management (HRM) practices, the DHRM has emerged. Thus, this study explores the contribution of DHRM to organizational performance in the aspect of efficiencies improvement, decision making efficiency, and employee engagement. It identifies the key digital HR tools: artificial intelligence, cloud based HR system, big data, predictive analytics and their influence on talent acquisition, recruiting and selection, training, performance management and employee retention. This paper looks into how digital HR adoption is challenged as well as the opportunities available in it and has been analyzed using empirical evidence and industry case studies. These findings indicate that with DHRM, organisations are more productive, agile and are strategically aligned for HR leading to competitive advantage. Finally, the conclusion state that amalgamation of digital HR technologies plays a key role in dictating organizational success in the existing business reality.

Keywords: Digital Human Resource Management, Organizational Performance, HR Technology, Employee Engagement, AI in HR, Workforce Analytics, HR Digitalization

Introduction

With the digital transformation era, organizations are resorting to the use of technology to streamline many business functions and the Human Resource Management (HRM) is not left out. Digital Human Resource Management (DHRM) has evolved as a strategic HR approach that entails adoption of digital tools and technologies to choreograph HR tasks, improve workforce productivity and enhance decision making. Advancement in artificial intelligence (AI), cloud computing, big data, and automation has led to shift from old HR practices to DHRM, which helps organizations in increasing efficiency, accuracy, and employee experience.

In today's modern business world, DHRM holds great importance in operations by helping to achieve a data driven approach to talent acquisition, automation of administrative tasks, empowering a remote workforce, and enhancing engagement of employees by means of digital communication and performance tracking systems. Companies can make the best and informed decisions, have less human bias, and make the best use of the available resources by implementing HR analytics and AI-driven recruitment tools. Moreover, digital HR solutions facilitate continuous learning and skill development through the E-Learning platform, so as to assist the employees develop adaptability for the changing workplace.

However, transformation to DHRM entails some difficulties including data security issues, unwillingness to alter a working method and heavy investment in information technology infrastructure. But on the other hand, organizations that can adopt DHRM strategically and work on this policy in suitable terms get an edge because they are able to better align to organizational agility, employee satisfaction and overall performance.

This paper seeks to investigate the value of DHRM in the organizational performance through evaluating its effect on HR functions, employee engagement and business outcomes. The study will identify key trends, challenges, and best practices with regard to digital HR transformation through empirical research and case studies. These findings will be able to provide such relevant insight for organization to strategically

administer DHRM in a manner so as to enable the organization's capability for sustainable development as well as provide competitive advantage for the organization in the digital age.

Literature review

Digital human resource management enhances the accuracy, efficiency and output. As stated by Chatterjee, Chaudhuri, Vrontis, and Siachou (2022), this saves the time of the HR staff to focus on long term goals such as employee growth and a supportive working environment. However, striking a balance between technology and human connection is essential to avoid leaving the warmth and empathy out of the way. Dundon and Rafferty (2018) point out what are many a digital HRM's advantages particularly greater alignment of HR strategy with broader corporate objectives, more efficient operations, less administrative work, happy employees and better data for decision making.

Rokni (2010) states that IT is implemented and used in all aspects of the organization for several reasons among, which are HR related. Many of these goals can be achieved by the HR management which in fact progresses the business and expands it to reach its fullest potential. The key fields that will be defined with the help of IT for each position will allow identification and selection of human resources, as well as training and effective utilization of human resources. This will boost the efficiency of HR and company growth.

However, Patil (2013) highlighted Employees perspective on e-HRM as well as their level of happiness on e-HRM as beneficial adoptions. The author emphasised that electronic human resource management (e-HRM) is a challenge for the IT staff. This investigation is a descriptive one. Organisationally, the survey made sense. A sample size of twenty IT staff members was used for software businesses. e-HRM system is web based that provides support in HR function. The encrypted database of e-HRM satisfied more than 70% of the employees very much. The improved departmental communication has delivered employee satisfaction by 51%.

Half of the workforce stated that e-HRM saves time. Findikli and Bayarcelik (2015) focused on two main areas on electronic human resource management and selection of system software in their 2015 study. It was a descriptive study design that was used in the research. In conducting this qualitative research we used open ended questionnaires and semi structured interviews. The sample size of the survey was limited only to the human resources department and no other division or executive was consulted about it. Basically, the poll stated that the key drivers of e-HRM software were time management, easy availability and acquisition of personal information, and reduced administrative expense.

According to Poyan (2016), most endogenous growth models point out the fact that investment in IT plays an important role in national economic development. While the bulk of the studies have shown this investment has a big and favourable impact. For the past few decades, the development and productivity in the organisations in the industrialised nations have been focusing on the technological advancement. For instance, digitaz HR systems can enhance productivity by streamlining tasks such as data input, document management, payroll processing and many others that are tedious administrative tasks. This in turn allows HR staff to work on more highly level, more strategic projects which in turn increases output and efficiency (Nawaz & Gomes, 2014; Lengnick-Hall & Mortiz, 2003).

Human resources procedures are more likely to make mistakes, for instance when calculations are made or when data are entered. Digital HR solutions also automate mundane processes and guarantee data integrity, thus reducing the chances of errors. HR records, payroll and compliance oriented tasks are more accurate. (Tillman, 2009; Lioncelli, 2018).

Digital HR technologies that provide the workers with more control over their information improve the employee experience. They are now able to update their own details, request time off and see their important HR laws and documents from their own home. As well this self service capabilities reduces administrative demands and provides increased independence, employee engagement and satisfaction is thus improved. Refer to Weeks (2013), Chauhan, Sharma, and Tyagi (2011) as well.

HR pros can gain access and analyze massive volumes of employee data stored in digital and human resources systems. These findings may help integrate with personnel management, strategic workforce planning, and performance assessment and to enable better data driven decision making as well. Published in 2006, Messaris and Humphreys state that these properties were published.

Although the research on the subject has grown, how effective Digital Human Resource Management (DHRM) is in the long term remains largely unsupported by a consensus in a broad range of sectors and upon a range of firm sizes. While others have explored subjects like employee happiness (Patil, 2013), productivity (Lengnick - Hall, & Mortiz, 2003), as well as administrative cost reduction (Findikli, Bayarcelik, 2015), there is a dearth of empirical evidence on the impact DHRM had on strategic HR decisions and workforce agility in a dynamic corporate environment. Moreover, research that ascertains the challenges of implementing DHRM in developing countries is sparse as most of the literature available deals with developed countries (Poyan, 2016). Because human interaction and automation in human resource management should be found at optimal balance, the lack of research on digital workspaces

raises worries about maintaining organisational culture and the welfare of employees. This paper, in depth, examines the extent through which DHRM has impacted on improving both operational efficiency and strategic HR effectiveness to fill in these gaps.

Objectives of the study

- To analyze the impact of Digital Human Resource Management (DHRM) on organizational performance.
- To examine the role of digital HR tools in enhancing efficiency, accuracy, and productivity.
- To evaluate the influence of DHRM on employee experience and engagement.

Hypothesis

H₀ (Null Hypothesis): Digital Human Resource Management (DHRM) has no significant influence on employee experience and engagement.

H₁ (Alternative Hypothesis): Digital Human Resource Management (DHRM) has a significant positive influence on employee experience and engagement.

Research methodology

The present study applies a mixed methods research approach by integrating the quantitative and the qualitative to examine how Digital Human Resource Management (DHRM) affects organizational performance, employee experience and engagement. Quantitative data will be gathered through structured survey among HR professionals and employees of multiple organizations using Likert scale to measure perceptions on effectiveness of DHRM. Qualitative insight will also be garnered through semi structured interviews with HR managers to learn about what are the challenges, best practices, and what are the strategic implications of DHRM adoption. The analysis is supported by the secondary data from the academic journals, industry reports, case studies, recruitment agencies, and online sources. Regression analysis and correlation tests will be used as statistical tools to determine the relationship between DHRM implementation and important organizational metrics. Pilot testing of the questionnaire and expert validation of the interview framework will guarantee reliability and validity of the study. In addition, findings will provide empirical evidence on role of DHRM as a driver of efficiency, employee satisfaction and business success.

Data analysis and discussion

Table 1 – Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum	% Agreement
Employee Satisfaction (1-5)	4.2	0.78	2.0	5.0	84%
Engagement Level (1-5)	4.1	0.82	1.5	5.0	82%
Perceived Efficiency (1-5)	4.3	0.75	2.5	5.0	86%
Digital HR Usability (1-5)	4.0	0.81	2.0	5.0	80%
Time Saved (Hours/Week)	6.5	1.2	3.0	10.0	—
Satisfaction with HR Tech (%)	78%	12%	50%	95%	—

Descriptive statistics of 225 respondents suggest that the Digital Human Resource Management (DHRM) play a crucial role in employee experience and engagement. Finally, when asked to provide employee satisfaction score, 4.2 (SD = 0.78), in terms of the impact of DHRM on their workplace experience, 84% agreed while the remaining 16% disagreed with some having a neutral perception. For instance, the mean score for engagement is also high; a score of 4.1 (SD = 0.82) shows that 82% of respondents think digital HR tools enhance their engagement even more.

Digital HR systems though seem to truly gain ground in modern day workplaces with the higher perceived efficiency at the mean score of 4.3 (SD = 0.75; 86% agreeing once again that digital HR systems enhances work efficiency). With slight lower usability, mean score of 4.0, SD = 0.81, that is, 80% of employees feel that digital HR tools are easy to use.

Time saved due to DHRM (a key metric) is approximately 6.5 hours per week (SD = 1.2) pointing out the importance of the automation of administrative burdens. Moreover, the average employee satisfaction score with HR technology is 78% (SD = 12%), between 50% to 95% and as a rule, HR technology is met with a positive response.

In general, the findings reveal that DHRM improves efficiency, engagement and employee satisfaction. The divergent responses, however, suggest that not all employees will have embraced digital HR systems without problems, and further study on usability problems and training programs may be required.

Table 2 – Pearson Correlation Analysis

Variables	Employee Satisfaction	Engagement Level	Perceived Efficiency	Digital HR Usability
Employee Satisfaction	1			
Engagement Level	0.812 (p < 0.01)	1		
Perceived Efficiency	0.765 (p < 0.01)	0.789 (p < 0.01)	1	
Digital HR Usability	0.701 (p < 0.01)	0.742 (p < 0.01)	0.798 (p < 0.01)	1

The Pearson Correlation Analysis showed in the Table 2 shows a strong positive correlation between the key employee experience factors (such as; satisfaction, engagement, efficiency and usability) and the adoption of Digital Human Resource Management (DHRM). There is a high correlation ($r = 0.812$, $p < 0.01$) between employee satisfaction and engagement level, participants who perceived DHRM positively generally had higher level of engagement in their roles. Also, perceived efficiency and engagement level ($r = 0.789$, $p < 0.01$) is strongly associated, where employees with high engagement at work are reported not only to be highly efficient in digital HR processes. Further, a strong correlation between perceived efficiency and digital HR usability ($r = 0.798$, $p < 0.01$) implies that user friendly digital HR tools can equally lead to the increase in operational efficiency. Lastly, the relationship between digital HR usability and employee satisfaction ($r = 0.701$, $p < 0.01$) further indicates that digital HR systems implemented well have positive effects on the employee experience and satisfaction because they simplify HR activities and help in alleviating the administrative burdens. The conclusions are also based on the findings which are in favour of the alternative hypothesis (H_1) that DHRM has a significant positive effect on employee experience and engagement. As all correlations are significant at the $p < 0.01$ level, it means that the observed relationships are not due to chance and that the organization can achieve better results if HR operations are efficiently formulated and involve easy to use digital tools. Therefore, these insights warrant that organizations should work on the DHRM system designs for the improvement of workforce engagement, satisfaction, and productivity.

Conclusion

This study investigates the part of Digital Human Resource Management (DHRM) in organizational performance in terms of employee experience and engagement. Descriptive statistics and Pearson correlation analysis findings demonstrate that DHRM has a great role in improving efficiency, accurate and employee satisfaction. Digital HR systems are such that employees who see them effective and easy to use are also those that exhibit high engagement levels and a generally better workplace experience. Strong positive correlation between employee satisfaction, engagement and perceived efficiency, as well as digital HR usability indicates that organisations that implement DHRM efficiently experience higher workforce productivity and improved HR decision making. These relationships are also statistically significant ($p < 0.01$) which goes to show how reliable these findings are. Furthermore, the study also emphasises that practice of DHRM helps in saving time and automation, which enables HR professionals to concentrate more on strategic initiatives instead of mundane tasks. Although DHRM offers many availabilities, organizations need to weigh DHRM against human interaction from the aspect that employees must trust, be motivated to work and be well taken care of for effective utilization of DHRM. There is a need for organizational challenges like technological adaptation, data security, and usability of these enablers for seamless implementation of digital HR tools. So, the study attests to the alternative hypothesis (H_1) that DHRM does have a significant positive influence on employee experience and engagement. The results indicate that organizations investing in more advanced digital HR solutions lead to increased satisfaction of the workforce, operational efficiency and overall business performance. Additional research can also reveal the long term effects of DHRM adoption across various industries and sizes of organization, along with the way DHRM adoption can be further optimized for proper digital HR practices.

References

1. Armstrong, M., & Taylor, S. (2020). Armstrong's handbook of human resource management practice. Kogan Page Publishers.
2. Atmaja, D. S., Zaroni, A. N., & Yusuf, M. (2023). Actualization of performance management models for the development of human resources quality, economic potential, and financial governance policy in Indonesia Ministry of Education. *Multicultural Education*, 9(1), 1-15.
3. Boon, C., Den Hartog, D. N., & Lepak, D. P. (2019). A systematic review of human resource

- management systems and their measurement. *Journal of Management*, 45(6), 2498-2537.
4. Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183-187.
5. Chatterjee, S., Chaudhuri, R., Vrontis, D., & Siachou, E. (2022). Examining the dark side of human resource analytics: An empirical investigation using the privacy calculus approach. *International Journal of Manpower*, 43(1), 52-74.
6. Chauhan, A., Sharma, S. K., & Tyagi, T. (2011). Role of HRIS in improving modern HR operations. *Review of Management*, 1(2), 58-70.
7. Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of Management Journal*, 49(3), 544-560. <https://doi.org/10.5465/amj.2006.21794671>
8. De Mauro, A., Greco, M., Grimaldi, M., & Ritala, P. (2018). Human resources for big data professions: A systematic classification of job roles and required skill sets. *Information Processing & Management*, 54(5), 807-817.
9. Dundon, T., & Rafferty, A. (2018). The (potential) demise of HRM? *Human Resource Management Journal*, 28(3), 377-391.
10. Fındıklı, M. A., & Bayarçelik, E. (2015). Exploring the outcomes of electronic human resource management (E-HRM). *Procedia – Social and Behavioral Sciences*, 207, 424-431. <https://doi.org/10.1016/j.sbspro.2015.10.112>
11. Gigauri, I. (2020). Implications of COVID-19 for human resource management. *International Journal of Economics and Management Studies*, 7(11), 25-33.
12. Karra, S. (2019). The hyper-personalization of HR services. *Forbes*. <https://www.elsevier.com/journals/asia-pacific-management-review/1029-3132/guide-for-authors>
13. Kovach, K. A., Hughes, A. A., Fagan, P., & Maggitti, P. G. (2002). Administrative and strategic advantages of HRIS. *Employment Relations Today*, 29(2), 43-48. <https://doi.org/10.1002/ert.10039>
14. Limoncelli, T. A. (2018). Documentation is automation. *Communications of the ACM*, 61(6), 48-53. <https://doi.org/10.1145/3190572>
15. Lengnick-Hall, M. L., & Moritz, S. (2003). The impact of e-HR on the human resource management function. *Journal of Labor Research*, 24(3), 365-379. <https://doi.org/10.1007/s12122-003-1001-6>
16. Messaris, P., & Humphreys, L. (Eds.). (2006). *Digital media: Transformations in human communication*. Peter Lang.
17. Montuschi, P., Gatteschi, V., Lamberti, F., Sanna, A., & Demartini, C. (2014). Job recruitment and job-seeking processes: How technology can help. *IT Professional*, 16(5), 41-49. <https://doi.org/10.1109/MITP.2013.62>
18. Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of Cleaner Production*, 243, 118595.
19. Nitsche, B. (2021). Exploring the potentials of automation in logistics and supply chain management: Paving the way for autonomous supply chains. *Logistics*, 5(3), 51.
20. Palumbo, R., Hinna, A., & Manesh, M. F. (2023). Aiming at inclusive workplaces: A bibliometric and interpretive review at the crossroads of disability management and human resource management. *Journal of Management & Organization*, 1-24.
21. Patil, U. V. (2013). The role of E-HRM in increasing positive work attitudes among IT employees: With special reference to Pune city. *Journal of Human Resource Studies*, 1(3), 27-35.
22. Poyan, S. A. (2016). *Evaluate the impact of e-human resource management success*. Shalok Publication.
23. Prikshat, V., Malik, A., & Budhwar, P. (2023). AI-augmented HRM: Antecedents, assimilation, and multilevel consequences. *Human Resource Management Review*, 33(1), 1008-60.
24. Rokni, M. A. (2010). *Investigating the impact of information technology on human resource performance*. Samt Publication.
25. Stone, D. L., Deadrick, D. L., Lukaszewski, K. M., & Johnson, R. (2015). The influence of technology on the future of human resource management. *Human Resource Management Review*, 25(2), 216-231. <https://doi.org/10.1016/j.hrmr.2015.01.002>