

THE IMPACT OF DIGITAL HRM PRACTICES ON THE ORGANIZATIONAL PRODUCTIVITY

Dr. S. Leena Rani

Assistant Professor, Department of Commerce, Mar gregorios college of arts and science ,
Chennai, Email: leenarani.john60@gmail.com

ABSTRACT

The role of Human Resource leaders in attracting, evolving and facilitating talent is key to the success of any business. Because of this, the digital transformation of human resources management was inevitable and drastically changed how businesses and individuals operate. For the purpose of increasing organizational efficiency, digital technology has completely redesigned and improved systems processes in a variety of industries. Over the past twenty years, digital tools such as applicant tracking systems (ATS), online job boards, and professional networking sites like LinkedIn, Facebook, and Twitter have brought about significant changes to HR practices. These tools have affected everything from posting job openings and accepting applications to recruiting and onboarding, employee engagement, performance management, and, at the end, employee separation and gathering insightful information during exit interviews. HR startup uses automation to replace manual procedures that are repetitious. Over time, all HR procedures must be connected throughout the company to achieve greater efficiency and transparency. According to a World Economic Forum report, the industry will see more diverse workplaces as a result of big data, cloud computing, mobility, and computer power. In another two years, it is predicted that AI (Artificial Intelligence), ML (Machine Learning) and Advanced Robotics will drive the workforce and increase the productivity levels enormously. The present paper attempts to explore the application and benefits of digital HRM on the overall productivity of the organization with the primary data collected from 201 respondents from private and public sector companies. Statistical tools like One Way Anova, Kruskal Wallis test and Multiple Regression were used to validate the research hypotheses and it was found that digital HRM applications and their operational benefits to the employees and organization have a remarkable impact on the overall productivity of the organization.

KEY WORDS: DIGITALISATION- HRM PRACTICES- AUTOMATION- PRODUCTIVITY

INTRODUCTION

The process of digitalization is changing how things are done. Everything appears to be automated and self-driven. Almost all businesses are investing in becoming more digitally savvy because none of them would want to fall behind the competition and stay antiquated. This raises the question: Will the HRM function become obsolete as a result of digitalization? In this sense, this study presents some intriguing information.

Artificial intelligence and other digitalization techniques will expedite the time-consuming procedures. For instance, the AI needs a few minutes to fill the hundreds of job openings, whereas it takes HR a week to manually pick and assess them. It uses keywords like location, technical skills, years of experience, educational background, and any applicable

specializations to search the database. Additionally, it has the ability to arrange interviews based on the automated emails sent to the short-listed prospects. It helps to avoid the major collapse during these times. Today every company and its employees are subjected to digital transformations. It has an impact on employees, and how digital tools and processes affect people.

Famous multinational corporations are initiating the Digitalization of HR with innovations. For example, Unilever is making significant changes to its hiring procedure. To further digitize its hiring process, the organization is experimenting with additional things including social media, online gaming, and artificial intelligence. To create innovative HR solutions like Ask Alex and the YouBelong@Cisco app, the Cisco company hosts hackathons. The former is designed to assist managers and new hires throughout the onboarding process, while the latter is a voice command tool that provides instant responses to a range of HR queries on vacation policies, costs, and other matters. IBM is renowned for its research and development of innovative digital HR solutions, a digital learning platform that offers its staff a completely personalized experience, among many other things.

STATEMENT OF RESEARCH PROBLEM

The advancement of technology is not a threat if it is well handled by professionals. That is the only reason to explore the digital human resource management at its core in order to upgrade and create new technologies respectively. Our aim is not to lose control over employees, and at the same time, control should not be too tight. We have to create a good atmosphere and environment to make the employees feel at home, Even though that is not possible we will give it a try and focus on increasing productivity. HR is under pressure to become more involved in assisting organizations in being "beyond" digital, as opposed to "doing" digital. The process begins with HR leaders investigating new platforms, technologies, and methods of operation as part of the digital transformation in HR.

HR departments are under pressure to change the game by revamping talent practices, including hiring, leadership, and performance management. They also need to experiment with digital apps and create an engaging employee experience, which will boost productivity and aid in management development. It is essential to manage them well in order to avoid the unnecessary involvement of other departments in HR Management. That is why Digitalization in HR department is very essential for an Organization to know the management process and its effectiveness on the productivity.

NEED FOR THE STUDY

Technology makes HR more effective and efficient for an organization. The digital HRM helps to control and maintain the employee recruitment process and provide a good work atmosphere for the employee to sustain the organization's productivity. Both the medium-sized and large-sized firms can benefit from adopting digitalized HRM practices, which leads to an increase in production.

REVIEW OF LITERATURE

Kalliopi Platanou and Kristiina Makela included in their research the suggestion for the development of digital HRM in various ways (2016). They are involved in a peculiar topic, which is the globalisation of HR functions, moving to the cloud, utilising social media, the

emergence of mobile-based technologies, big data and HR analytics for specific needs, and moving towards futuristic technologies as much as possible. With these suggestions, we can evolve into new ideas based on semi-developed countries like India. The government organisations and private organisations should be under good management, which should have a technical analysis of the overall departments. In order to do that, digital human resource management is helpful.

These days, every company needs to work on raising the calibre of its personnel. At work, an effective and well-thought-out strategy is needed to acquire the best human resources. As technology progresses in the field of human resources, old HRM is gradually being replaced by modern, technologically sophisticated HRM. However, by focusing on the significance of cutting-edge practices and technology in the context of a competitive digital economy, this study adds to the body of current material. Future research directions and study constraints are also highlighted. **Roma Tripathi and Kushwala Pooja (2017)** study the digital era's innovative practices.

In 2018, **Harsh Sharma** conducted research on the practices of electronic human resource management in Indian organizations. The aim of the study was to investigate the most recent developments in the adoption of IT for HR practices by several Indian organizations. Additionally, it draws attention to how electronic human resource management, or EHRM, is evolving within businesses. The impact of technology on HR functions other than HRIS (Human Resource Information System) and database management is covered in this article. The technological advancements in HR functions such as performance management, workflow management, training and development, and recruitment are covered.

The analysis by **Nemanja Berber, Bilijana Dordevic, and Sandra Milanovic (2018)** on the effect of e-HRM on the Cranet Research database in 2015–2016 covers Serbian organizations with respect to the significance of the concept of E-HRM and its features, advantages, and potential drawbacks. It also illustrates the extent of E-HRM usage in Serbia. They also participate in the analysis that advances, improves, and makes HRM practice easier for managers, employees, and the HR Department. The promotion activities through digital human resource management created new opportunities and technological innovation for the benefit of the company as well as the employees. This indicates that digital human resource management is ideal for the output expected by managers.

Maria P. Michailidis research based on how block chain and AI are affecting HR practices (2018) Employment patterns in the emerging age of high-tech super-automation, the implications of the forthcoming AI on employment (or unemployment), and the inevitable income inequality that is bound to develop and affect our societies. The idea of e-HRM has been used in every aspect of the company. This indicates the process and progress have been tremendously improved at the end of the day. Frequently, digital human resource management has its own positive impact on employees, which results in betterment and the good output expected by the management.

Syed Rizwan Naqvi, Dr. Puja Sareen, and Dr. Tanuja Sharma (2019) have worked on a **paper** on the study of challenges in the HR department of an organization. The paper has objectives such as challenges faced by the HR department of the sample business organization and how HR services are tackling emerging business challenges. Their research is based on the

challenges faced by a sample business organization and its requirements in order to fulfill changing business needs. Workforce diversity, gender inequality, talent acquisition, and retention are the main issues that organizations face as a result of fierce competition, and E-HRM focuses on providing ready-made solutions to meet these needs as well. This article examines the rapidly expanding bank and its evolving business requirements, followed by the emergence of E-HRM as a solution to meet these needs.

RESEARCH GAP

Many research studies were carried out on the adoption and impact of information technology on human resource management functions, right from recruitment up to the measurement of performance and retaining talented employees in the organization. HRM has a significant impact on the output of the company and benefits the employees and the organization, as revealed by many researchers during the past decade. Even the challenges faced by simple business firms in installing digital HRM and providing solutions to the business organization are addressed by many researchers, but very few studies are conducted to correlate the functions of E-HRM applications, their benefits to staff and company, and the overall productivity of the organization. Hence, the necessity to undergo this present study emerged to assess and evaluate the impact of E-HRM on organisational productivity.

RESEARCH METHODOLOGY

Nature of research: Explorative and qualitative

Sample size: 201

Sample respondents: Employees of corporate sector

Sampling Method: Non-Probability Sampling (Convenience)

Data collection: Primary Source (Questionnaire Method)

OBJECTIVES OF THE STUDY

1. To understand the significance of digital human resource management in the functioning of HR departments in organizations.
2. To identify the benefits of digital HRM to the management of organizations.
3. To analyse the impact of digital HRM on the productivity of organizations.

HYPOTHESIS OF THE STUDY

1. There are no significant differences in the functions of the human resources department after the digitalization of HRM.
2. Digitalized HR operations are not positively associated with the benefits they accrue to the organization.
3. The overall productivity of the organization is not influenced by E-HRM's functions or the benefits of E-HRM to their employees and organization.

ANALYSIS AND INTERPRETATION

The primary data collected from 201 respondents was subjected to data analysis to validate the hypotheses and arrive at inferences.

Objective 1: To understand the significance of digital human resource management in the functioning of the HR department.

To validate the first hypothesis, a one-way ANOVA test is conducted to find out the

significance of E-HRM on the functions of the human resources department.

Table 1 - One Way Anova for influence of occupation on digital HRM

		Sum of Squares	df	Mean Square	F	P value
Digitalization in Recruitment, Selection and training of employees	Between Groups	0.862	3	0.28733333	0.779695	0.506
	Within Groups	72.5985	197	0.3685203		
	Total		200			
Enhanced security through Bio metric authentications	Between Groups	2.652	3	0.884	1.241	0.296
	Within Groups	140.0758	197	0.71104487		
	Total		200			
Electronic Payroll processing and effective rewards	Between Groups	7.706	3	2.56866667	2.898308	0.036
	Within Groups	174.594	197	0.88626416		
	Total		200			
Timely access to staff HR records and documents	Between Groups	6.81	3	2.27	3.138495	0.026
	Within Groups	142.4855	197	0.72327655		
	Total		200			
Reduced paper work formalities	Between Groups	8.046	3	2.682	2.852556	0.038
	Within Groups	185.2213	197	0.94020954		
	Total		200			

Source: Computed from primary data

Inference:

From the above Anova table, it is inferred that the digitalization of human resource management led to significant improvements in electronic payroll processing, timely access to staff HR records and reduced paper work dependence, as the null hypothesis was summarily rejected ($p = 0.036, 0.026$ and 0.038).

Objective 2: To identify the benefits of digital HRM to the management of organizations.

To test the relevant hypothesis, the Kruskal-Wallis test is applied to find the influence of E-HRM on the benefits of the same to the organization.

Table 2 - kruskal wallis test for benefits of Digital HRM to organisation by occupation

BENEFITS TO ORGANISATION	Chi-square	Df	P value
Saving of resources	8.145	3	.043
Grievances handling and tracking	1.189	3	.756
Supervision of HR manpower	1.123	3	.772
Competency mapping to track employees	7.930	3	.047
Performance evaluation through digitalized HRM for retention	8.759	3	.032
Preservation of Intellectual capital	8.638	3	.034
Employees participation in Management	1.980	3	.577
Improved data security and HR policies	8.669	3	.034

a. Kruskal Wallis Test

Source: Computed from primary data

Inference:

From the above exhibit, it is inferred that the digital HRM benefits the organization significantly in terms of saving resources ($p = 0.043$), competency mapping to track employees ($p = 0.047$), performance evaluation of employees ($p = 0.032$), retaining intellectual capital ($p = 0.034$) and improving data security and HR policies ($p = .034$).

Objective 3: To analyse the impact of digital HRM functions and their benefits to employees and organizations on the productivity of the organization.

A multiple regression analysis is performed to understand the impact of digital HRM functions and their benefits on the overall productivity of the organization.

Table 3 - Model Summary for impact of Digital HRM on organizational productivity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin Watson
1	.868 ^a	.754	.751	.43190	2.081

a. Dependent Variable: Overall productivity

b. Predictors: (Constant), Digital HRM functions, Benefits to employees and benefits to the organization

From the model summary it is understood that the correlation between overall productivity and applications and benefits of HRM is 86.8 percent and 75.4 percent of the variation in the productivity is accounted for by the Digital HRM functions and benefits. As the DW value approaching 2 (ideal range 1.5-2.5) there is no auto correlation in the residuals of the regression detected in the sample and the observations are independent.

Table 4 - One Way ANOVA^a for impact of Digital HRM on organizational productivity

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	352.677	7	50.382	270.096	.000 ^b
	Residual	115.092	617	.187		
	Total	467.770	624			

The Anova table reveals that the independent variables namely application of digital HRM and

their benefits to employees and organization have a significant effect on the dependent variable called overall productivity in organization.

Table 5 - Coefficients for impact of Digital HRM on overall productivity of organization

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.207	.090		2.308	.021
	Digital HR functions	.397	.041	.370	9.658	.000
	Benefits to the staff	.108	.031	.076	3.468	.001
	Benefits to the organization	.171	.039	.165	4.341	.000

From the above exhibit of regression coefficients it is inferred that the application of Digital HRM ($p = 0.000$), Benefits of Digital HRM to the employees ($p = 0.001$) and Benefits of Digital HRM to the organization ($p = 0.000$) have significant impact on the overall productivity of the organization. The standardized beta values of .370, .076 and .165 represents the strength and direction of the independent variables that affects the overall productivity.

RESULTS AND DISCUSSION

The majority of the respondents (68%) are in the age group of 21–30, representing lower- and middle-level managerial staff of the organization. The major respondents are from private sector organizations (61%). The respondents who belong to the top/tactical level are 47% in the positions of managing director, chief finance officer, and head of HR operations. Digitalization is of essential importance to data processing, storage, and transmission because it "allows information of all kinds in all formats to be carried with the same efficiency and also intermingled." The digitalization of human resource management has led to significant improvements in electronic payroll processing, timely access to staff HR records, and reduced paper work dependence.

The digitalization in Human Resources Department is developing its own innovative technologies, which are essential for an effective impact on management. The promotion activities through digital human resource management created new opportunities and technological innovation for the benefit of the company as well as the employees. Nemanja **Berber, Bilijana Dordevic, and Sandra Milanovic** (2018). In the present paper, it has been revealed that digital HRM benefits the organization significantly in terms of saving resources (humans, materials, machines, methods, and money), competency mapping to track employees, performance evaluation of employees, retaining intellectual capital, and improving the data security and HR policies of every organization.

Human resource planning, recruitment, selection, performance management, work flow, and compensation are new systems that have enabled HR professionals to provide better service to all of their stakeholders (e.g., applicants, employees, and managers) and reduced the administrative burden in the field. (**Dianna L. Stonea, James H. Dublebohn**, 2016) The multiple regression analysis revealed that the application of digital HRM and its benefits to employees and organizations have a significant effect on the dependent variable called overall

productivity in organizations.

The security of the information and data should be more of a concern, as there are hackers who gain by misleading or misusing those information and data by stealing them. This fear is keeping employers away from the idea of getting digitalized. (**Shankar Subramanian, Mohan Thite, and S. Sampathkumar, 2017**). Hence, the organization should take safety and precautionary measures to safeguard the confidential data and information pertaining to the strategy, budgets, employees, products, research design, etc. The present study covered various data security measures like encryption, backup and recovery, access control, network security, and physical security.

CONCLUSION

Digitalization is the key to the modern world, which is faster and smarter. Digital HR practices have created many revolutionary organizations around the globe. Corporate, public, and private sector companies depend on this digital human resource management. The doors are always open for innovative technologies and ideas in digital HRM in order to face day-to-day problems. Our organizations will be more secure and easier to access with the help of regular digital practices.

Higher productivity and incremental profit will be the ultimate goals for any organization. This digitalization will lend a helping hand via human resource management to increase both productivity and profit. Through the promotion of digital HR and transformation, the company may realize the extent to which technology can enhance employee workflow across the board and free up critical time for productive activities.

SCOPE FOR FUTURE RESEARCH

The present research is limited to digital HRM functions and their benefits to employees and organizations with respect to companies located in Chennai. Further research can be extended to the impact of artificial intelligence (ChatGPT, Bing), machine learning algorithms such as LR, RF, DT classifier, and k-nearest neighbours (k-NN), RPA (Robot Process Automation), and cloud computing on human resource functions like recruitment, selection, training, talent identification, performance monitoring, quality improvement, and productivity. Similar studies can be performed on sector-wise industries at the Indian and global levels.

REFERENCES

1. Ari, E., Karatepe, O. M., Rezapouraghdam, H., & Avci, T. (2020). A conceptual model for green human resource management: indicators, differential pathways, and multiple pro-environmental outcomes. *Sustainability*, 12(17), 7089.
2. Iqbal, N., Ahmad, M., MC Allen, M., & Raziq, M. M. (2018). Does e-HRM improve labour productivity? A study of commercial bank workplaces in Pakistan. *Employee Relations*, 40(2), 281-297.
3. Kushwaha, P., Tripathi, R., Chauhan, S., & Saxena, R. (2017). Exploring the Role of Knowledge Sharing in the Digital Era: A Conceptual Study. *The Digital Transformation of Business in India: Opportunities and Challenges*.

4. Mhatre, G., & Dhole, V. (2018). "Trends in HRM: Innovative Technology for Higher Productivity of Employees and Organizations." *International Journal of Scientific and Engineering Research*, 9(7), 1984–1990.
5. Michailidis, M. P. (2018). The challenges of AI and blockchain in HR recruiting practices. *Cyprus Review*, 30(2), 169–180.
6. Naqvi, R., Sareen, P., & Sharma, T. (2019). Role of Innovative eHRM as a Solution Provider: A Case Study of Kotak Mahindra Bank. *International Journal of Advance and Innovative Research*, 6(1).
7. Nurshabrina, N., & Adrianti, R. (2020). The effect of e-human resource management (E-HRM) on the cost efficiency and productivity of employees in the company. *International Research Journal of Advanced Engineering and Science*, 5(1), 212-215.
8. Platanou, K., & Mäkelä, K. (2016). HR function at the crossroads of digital disruption, *Työn*, 1, 19–26.
9. Strohmeier, S. (2020). Digital human resource management: A conceptual clarification. *German Journal of Human Resource Management*, 34(3), 345–365.
10. Subramaniyan, S., Thite, M., & Sampathkumar, S. (2018). 15: Information security and privacy in e-HRM. *e-HRM: Digital Approaches, Directions, and Applications*, 250.
11. Al Shobaki, M. M., Naser, S. S. A., Amuna, Y. M. A., & El Talla, S. A. (2017). The Efficiency of Information Technology and the Role of e-HRM in Palestinian Universities. *International Journal of Engineering and Information Systems*, 1(5), 36–55.
12. Rathee, R., & Bhuntel, M. R. (2021). A study on employee perceptions about the use of e-HRM in IT. *SCMS Journal of Indian Management*, 18(1), 37–47.
13. Gupta, A., & Saxena, S. (2013). Electronic human resource management (e-HRM): a growing role in organisations. *Management Insight*, 8(1), 60–66.
14. Berber, N., Orević, B., & Milanović, S. (2018). Electronic human resource management (e-HRM) is a new concept for the digital age. *Strategic Management—International Journal of Strategic Management and Decision Support Systems in Strategic Management*, 23(2).
15. Halid, H., Yusoff, Y. M., & Somu, H. (2020, May). The relationship between digital human resource management and organisational performance. *First ASEAN Business, Environment, and Technology Symposium (ABEATS 2019)* (pp. 96–99). Atlantis Press.