

# ASSESSING THE IMPACT OF TECHNOLOGY-DRIVEN HUMAN RESOURCE SOLUTION IN EMPLOYEE RETENTION

**Karthiyayini.R<sup>1</sup> and Dr.Rajini.G<sup>\*2</sup>**

MBA Student, School of Management Studies, Vels Institute of Science, Technology and Advanced Studies (VISTAS),  
Chennai, Tamil Nadu, India.

Professor and Director-MoUs, School of Management Studies, Vels Institute of Science, Technology and Advanced  
Studies (VISTAS), Chennai, Tamil Nadu, India.

*\*Corresponding Author*

**Abstract:** This research investigates the efficiency of technology-based Human Resource (HR) solutions in boosting employee retention in different organizational contexts. As quick digital transformation unfolds, organizations increasingly turn to HR solutions like SAP Fieldglass, HRMS, VMS Workday, and employee self-service portals to optimize HR efficiency, decrease administrative burdens, and improve employee engagement. The study examines how these tools lead to enhanced hiring, on-boarding, compliance, communication, and career development programs. Data was gathered through systematic surveys of professionals across various experience levels and organizational functions. The results point out that although digital HR solutions greatly enhance operational processes and decision-making, issues like technical problems, absence of training, and resistance to change continue to exist. The research underlines the significance of easy-to-use design, automation, and customized HR strategies in promoting employee satisfaction and long-term commitment.

**Keywords:** Digital HR Tools, Employee Retention Automation, SAP Fieldglass, Employee Engagement, Workforce Analytics, Human Resource Management System, On-boarding Efficiency

## 1. INTRODUCTION

The research study "Assessing the Impact of Technology-driven HR Solutions in Employee Retention" attempts to determine the impact of the use of innovative HR technologies on employee retention at companies. With more companies embracing digital tools for HR operations, this research study aims to analyse the performance of technology-based instruments like HR software, predictive analytics, and performance management systems in enhancing worker engagement, satisfaction, and retention. The results of this study will shed light on the key role played by digital tools in defining HR practices and generating long-term employee commitment. Furthermore, it will highlight the opportunities and challenges related to the use of technology in HR and provide more efficient retention strategies. The findings will underpin the creation of specific HR practices and policies that are commensurate with the changing needs of the workforce and the continuous digitalization of organizations.

## PROBLEM STATEMENT

In a time of technological revolution, transforming the nature of work in the workplace, organizations are embracing digital HR solutions to better manage talent. But the direct connection between these technology-based HR tools and employee retention is not fully understood. While these systems aim to automate processes, enhance engagement, and enable career growth, their actual contribution to minimizing employee turnover is unclear. Most organizations spend significantly on HR technologies without adequate demonstration of their impact on long-term retention performance. Furthermore, user resistance, digital exhaustion, and absence of personalization might constrain the supposed advantages. This research aims to explore these details and show whether and how digital HR tools help in keeping employees in today's workplace.

### **NEED FOR THE STUDY**

This research intends to investigate the role of technology-based HR solutions in transforming employee retention by empowering organizations with hands-on tools like self-service portals, automation platforms, and cloud-based systems. It highlights the need for leveraging predictive analytics and digital HR practices to anticipate and solve workforce challenges, enhance employee experience, and inform strategic decision-making. The research also emphasizes making core HR processes such as payroll, leave, and attendance management more efficient so that professionals can focus on employee engagement and talent development. It also emphasizes how these technologies make employees more job-satisfied, less work-burdened, and well-suited for learning. The research emphasizes the necessity of measuring the effectiveness of HR tech to make it cost-effective and employee-centric. It is ultimately meant to help organizations create a stable, satisfied, and future-fit workforce by strategically leveraging digital HR innovations.

### **OBJECTIVES OF THE STUDY**

1. To assess how technology-driven HR solutions affect employee retention by examining changes in turnover rates, job satisfaction, and engagement levels.
2. To evaluate the impact of digital HR tools on improving employee experience, reducing workload, and increasing job satisfaction
3. To identify the challenges that employees face when adapting to HR technology and their impact on retention.
4. To investigate how Technology-powered career development and learning management systems (LMS) improve employee skill growth and long-term retention.
5. To investigate how predictive HR analytics can aid in better decision-making for improving employee retention strategies.

## **II. REVIEW OF LITERATURE**

The use of HR technology highly aids in employee retention through ease of hiring, performance management, and engagement (Kulik, 2020). Technology-enabled tools are crucial to forecasting turnover threats and tailoring employee experiences, but they pose ethics and data privacy questions (Chien & Chen, 2019). As HRM transforms through technology, automation, and analytics, professionals need to adjust but remain human-focused (Stone et al., 2020). Learning Management Systems (LMS) support retention through the provision of personalized training and career development (Gartner, 2021). HR technology also prevents unconscious bias during hiring, but algorithmic equity needs to be regulated (Brown, 2017). Companies need to weigh evolutionary changes against innovative transformations in order to remain flexible within a technologically driven HR environment (Tushman & O'Reilly, 1996). Technology-based engagement tools and career progression tools are invested in and associated with a 40% retention increase (Deloitte, 2019). HR gamification enhances motivation and cooperation but might stifle intrinsic motivation if based too much on extrinsic rewards (Hewett, 2018). Digital well-being initiatives mitigate burnout and lead to job satisfaction, driving decreased attrition (Cohen & Willis, 2020). In total, predictive analytics, automation, and cultural alignment with the help of HR tech enhance decision-making, transparency, and employee retention (Bailey et al., 2019; DeVaro, 2016; Kaufman et al., 2019).

## **III. RESEARCH METHODOLOGY**

Research Methodology is the formal way of addressing a research issue through data collection by employing techniques, giving interpretation to data obtained and making an inference regarding research data. Conventional researchers generally conduct research studies employing the kind of methodology generally employed by research institutions which are two paradigms, namely Quantitative and Qualitative.

According to Robson 2002 Defines research methodology as "the theoretical, A research methodology outlines the methods and procedures employed in the identification and analysis of information on a particular research topic. It is a procedure through which researchers plan their study in a manner that enables them to meet their goals utilizing the chosen research instruments.

**Research Design:** Descriptive Research

**Sample Design:** Convenient Sampling

**Sample Size:** 100

**Data Source:** Primary and Secondary Data

**Instrument:** Questionnaire

### **STATISTICAL TOOL**

- Reliability
- Correlation
- Regression

### RELIABILITY ANALYSIS

Reliability Statistics	
Cronbach's Alpha	N of Items
.957	24

#### Interpretation

A reliability analysis was performed using Cronbach's Alpha to assess the internal consistency of the 24-item scale. The analysis produced a Cronbach's Alpha value of 0.957 and a standardized alpha of 0.957, both of which indicate excellent internal consistency.

This high reliability score confirms that the 24 items in the scale are measuring a cohesive underlying construct and are highly suitable for further analysis.

### CORRELATION

CORRELATION					
		HRP	EE	CAT	CD
HRP	Pearson Correlation	1	.789**	.691**	.796**
	Sig. (2-tailed)		.000	.000	.000
	N	100	100	98	100
EE	Pearson Correlation	.789**	1	.851**	.791**
	Sig. (2-tailed)	.000		.000	.000
	N	100	100	98	100
CAT	Pearson Correlation	.691**	.851**	1	.824**
	Sig. (2-tailed)	.000	.000		.000
	N	98	98	98	98
CD	Pearson Correlation	.796**	.791**	.824**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	100	100	98	100

#### Interpretation

The analysis finds significant positive correlations between different factors associated with Human Resource Practices (HRP), Employee Experience (EE), Challenges in Adapting HR Tools and Reducing Workloads (CAT), and Career Development (CD).

HRP is highly positively correlated with EE (0.789), CAT (0.691), and CD (0.796). EE is highly positively correlated with CAT (0.851) and CD (0.791). CAT is highly positively correlated with CD (0.824). Improving HR practices by emphasizing improved HR tool integration, efficient processes, and workload support could help significantly minimize the difficulties in adopting HR tools and workload management.

### IV.REGRESSION ANALYSIS

#### Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Change Statistics		
						R Square Change	F Change	df1
1	.879 <sup>a</sup>	.773	.766		2.63243	.773	106.781	3

#### Interpretation

The multiple linear regression analysis was used to test the predictive ability of Human Resource Practices (HRP), Employee Experience (EE), and Challenges in Adapting HR Tools and Reducing Workloads (CAT) on Career Development (CD).

The model was significant statistically ( $F(3, 96) = 106.781, p < 0.001$ ) with an  $R^2$  of 0.773, meaning that 77.3% of the variance in Career Development is accounted for by the three predictors. The 0.766 adjusted  $R^2$  also validates the model, while a Durbin-Watson statistic of 2.63243 indicates no severe autocorrelation of residuals. These result in with the significance of enhancing HR practices, employee experience, and reduce the difficulties in the implementation of HR tools for career development in the workplace.

### **V.FINDINGS**

The research, which was conducted among workers from various professional ranks, measured the effect of technology-based HR solutions on worker outcomes. The 24-item questionnaire employed had superior internal consistency with a Cronbach's Alpha of 0.957. The HR practices, employee experience, and career development were rated positively by participants. Correlation analysis indicated positive high correlations between HR practices (HRP), employee experience (EE), difficulty in adjusting HR tools (CAT), and career development (CD). HRP was strongly correlated with EE (0.789), CAT (0.691), and CD (0.796), while EE was most strongly correlated with CAT (0.851) and CD (0.791). Regression analysis revealed that HRP, EE, and CAT collectively accounted for 77.3% of the variance in career development ( $R^2 = 0.773$ ), highlighting their predictive potential. Workers deemed tools such as SAP Fieldglass, SharePoint, and VMS effective in increasing engagement and reducing the workload. The software was also regarded as facilitating personalized retention strategies and career development. Some of the challenges like a lack of training, technical issues, and change resistance were identified. Generally, the results indicate the significant contribution of digital HR tools to employee experience, operational efficiency, and long-term retention.

### **VI.SUGGESTION**

The Suggestion explaining the importance of HR technology applications such as SAP Fieldglass, SharePoint, and VMS in facilitating communication and collaboration, as well as improving motivation and minimizing workload. They also involve giving concrete insights into typical challenges such as inadequate training, technical problems, and resistance to change, as well as feasible solutions for overcoming them. Focus should be given to connecting research outcomes with implementable HR strategies that facilitate employee experience and career growth. Next-level research is proposed to investigate the influence of emerging technologies like artificial intelligence (AI) and machine learning in HR functions.

### **VII.CONCLUSION**

The results indicate that technology-driven HR solutions were received enthusiastically by employees, especially in areas of improving engagement, workload minimization, and career development through applications such as SAP Fieldglass, SharePoint, and VMS. Nevertheless, the short research time allowed for data collection could have limited the intensity of findings, and issues such as lack of training, technical issues, and resistance remain to be effectively tackled. Offering more formal assistance, hands-on training, and more streamlined implementation plans would help further enhance the effectiveness of these digital technologies. Overall, the use of HR technologies seems to have a positive effect on employee experience and retention, but better implementation and flexibility could make them even more powerful. Further emphasis on linking HR practices to workers' needs, feedback, and investigating innovations such as AI and machine learning will be crucial to sustaining the currency and effectiveness of digital HR systems in contemporary workspaces.

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