Book Chapter

E-HRM and Organizational Resilience: A Case Study of a Technology Solutions Company in Bangalore During COVID-19

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Abstract

The main objective of this study was to ascertain how an organization's performance is affected by the implementation and utilization of electronic human resource management (E-HRM). Using a questionnaire measure, this study used a quantitative methodology. The results of the research support the beneficial effects of E-HRM on organizational effectiveness. To gather the data, a systematic questionnaire was created, and 150 responses were gathered. Anova, correlation, regression, and reliability statistics were the methods applied.

Keywords: E-HRM. Organizational Effectiveness. Correlation. Regression.

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1   Introduction and Review of Literature

The phrase "e-HRM" first appeared in official usage in the early 1990s to describe human resource management done online. Another aspect of human resources during the past couple of years has been electronic HRM.One definition of E-HRM is "an approach to implementing HR strategies, policies, and practices within the organization."The use of electronic health records (E-HRM) to HR procedures allows for simple interactions with employee personal information, performance management, hiring, training, and strategy orientation.A more recent and widely used definition of E-HRM is "the planning, implementation, and application of information systems for both networking and supporting performers in their shared performing HR activities." Alternatively, it can be described as "a way of implementing HR strategies, policies, and practices in organizations through an aware and directed support of or with full use of web-technology-based channels." In light of growing market competition and globalization, business marketplaces are shrinking daily. As a result, businesses must perform better in order to provide customer-focused services. "Electronic Human Resource Management (E-HRM)" is the term for the internet-based human resource management solutions that the firms are implementing. E-HRM is the process of implementing and utilizing web-based technologies with the goal of offering HRM (human resource management) services to employees. E-HRM has developed to the point where it can now integrate all of the HRM policies within the company in the recent past. E-HRM is essentially the transfer of HR responsibilities to management and staff. In general, they use the intranet or other web technology channels to access these functions (Mittal, 2020). The HR department is relieved of these responsibilities when managers and staff are empowered to carry out specific HR functions. This allows HR staff to concentrate more on the strategic aspects of HR and less on the operational aspects, allowing organizations to reduce the number of employees in the HR department as the administrative load decreases. E-HRM is believed to bring about numerous new company cultures (Mittal et al., 2023).

One key competency in the organization's day-to-day operations is organizational resilience. The organization may benefit from organizational resilience, nevertheless, if the environment becomes unpredictable and unmanageable (Xiao & Cao, 2017). Organizational resilience's leading indicators are learning, knowledge, leadership, situation awareness, and risk management (Quansah, 2013). The key markers of organizational resilience are leadership, knowledge, learning, comprehension of situations, and risk management (Liu et al., 2013). Moreover, leadership behaviors—the capacity to see opportunities and remain upbeat in the face of adversity—are the most important success factor for an adaptive organizational culture since they have an impact on work performance (Wang et al., 2010) . Jayaweera's (2015) discovered that there may be a mediating role for organizational culture in the relationship between leadership and organizational results.

Tojari, Heris, and Zarei's (2011) concurs with Jayaweera's (2015) findings, according to which organizational culture influences the link between performance within a company and leadership style.Liu et al.'s (2013) proposes the notion of organizational awareness as a useful tool for crisis management. The decision-making process in complex, dynamic systems performances is propelled by situation awareness (Faizan & Zehra, 2016). The ability to gain insight from crises experiences and apply these lessons in new situations are the foundational aspects of organizational awareness. Other aspects involve acknowledging teamwork and integrating knowledge (Quansah, 2013). Furthermore, Sharma and Kirkman's (2015) stated that there is a direct correlation between an organization's effectiveness, culture, and leadership style. Results which include commitment are influenced by the nature of the connection between a leader and follower (Wang et al., 2010). To investigate how E-HRM practices affected the COVID-19 pandemic's effects on organizational performance. To ascertain the degree of employee satisfaction with the company's E-HRM activities. Should take a look at how E-learning, E-performance management systems, and e-grievance monitoring affect organizational performance when it comes to E-HRM practices.

2 Objectives Of The Study

- To know the different E-HRM practices followed in 9 sign infra solutions.
- To examine the employee behaviour in COVID-19 pandemic.
- To study the effects of E-HRM procedures on the effectiveness of organizations.

3 Data Collection And Sample Design

Data for this research was collected through two types: primary and secondary data. Primary data refers to the original information collected firsthand, while secondary data is obtained from existing sources compiled by others. In this study, data collection was conducted through a structured questionnaire, with a sample size of 150 employees from 9 Sign Infra Solutions, Bangalore. The research employs several analytical tools, including Reliability Statistics, Regression, Correlation, and ANOVA, to ensure accurate and comprehensive data analysis.The conceptual framework is represented in figure 1.

Hypothesis:

H1: E-learning has significant impact on Organizational performance.

H2: E- performance management system has significant impact on Organizational performance.

H3: E- Grievance tracking has a moderate impact on Organizational performance.

H4: E-Payroll has a significant impact on Organizational performance.

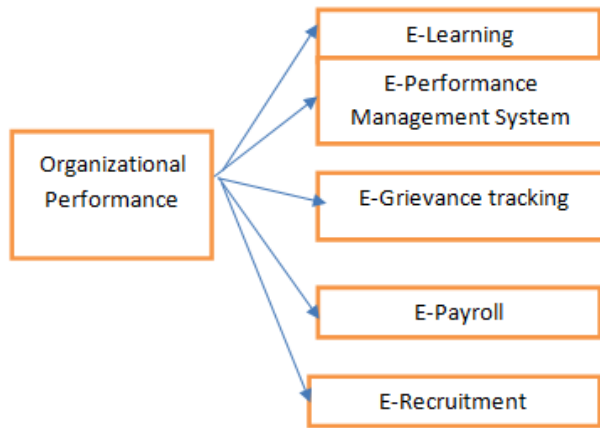H5: E-Recruitment has a significant impact on Organizational performance.

Figure 1. Conceptual Framework

4 Data Analysis And Interpretation

VAR00001 about Age

VAR00002 Gender

VAR00003 E-HRM practices in your organization

VAR00004 E-HRM practices are user friendly and easy to use

VAR00005 Does your company provide training related to usage of E-HRM portals

VAR00006 Do you get accurate information in time through using E-HRM practices

VAR00007 E-HRM practice has been successful in improving accuracy and efficiency of HR functions in your organization?

VAR00008 Does your organization give performance appraisal through E-PMS (performance management system)?

VAR00009 Are you satisfied with the E-HRM practices in your organization

VAR000010 E-HRM practices of your organization are updated regularly as per your needs?

VAR000011 Do you promote the usage of E-HRM system further in your organizations?

VAR000012 Does your company promote E-selection through E-HRM system?

VAR000013 Are E-HRM procedures the same in each of your company's departments, business units, and divisions?

VAR000014 E-HRM practices support the routine day to day tasks of HRM in your organization?

VAR000015 Is the objective of your organization's E-HRM practices to strengthen HR forecasting performance?

VAR000016 Does an E-HRM practice aims at reducing the organizational performance of HR forecasting in your organization?

VAR000017 Electronic candidate identification, screening, and interviewing are made possible by E-HRM procedures in order to hire new employees for the company.

VAR000018 Does your business create HR policies and procedures using E-HRM practices?

VAR000019 Are you able to obtain the information you require from the website that your company has set up?

VAR000020 Does your company provides and enhances with necessary skills and knowledge to do your job ?

VAR000021 Does your company offer training programs to suit every employee's need to raise performance levels?

VAR000022 Does your organization E-HRM practice support pay roll issues?

VAR000023 Does your company's use of EHRM procedures facilitate decision-making at the middle and upper levels of management?

4.1 Reliability Statistics

One of the most well-known metrics for assessing internal consistency is Cronbach's Alpha. It is most commonly used when a study or questionnaire contains several Likert questions that form a scale and you want to determine whether the scale is dependable. For excellent dependability and consistency, the Cronbach's Alpha value is 0.7. With a score of more than 0.7, the Cronbach's Alpha for the survey's 21 questions is 0.795, indicating more reliability (see table 1).Table 2 represents the item the total stastics.

Table 1. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.795	.798	21

Table 3 represents the mean and standard deviation of each question of the questionnaire.

Table 2. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
VAR00003	75.70	64.980	.338	.214	.787
VAR00004	75.61	63.874	.466	.358	.780
VAR00005	75.70	66.291	.312	.290	.789
VAR00006	75.77	64.627	.398	.298	.784
VAR00007	75.75	64.891	.346	.361	.787
VAR00008	75.82	64.203	.398	.465	.784
VAR00009	75.81	64.698	.337	.356	.788
VAR00010	75.62	65.979	.311	.301	.789
VAR00011	75.88	64.526	.399	.299	.784
VAR00012	75.81	64.752	.358	.303	.786
VAR00013	75.85	64.064	.399	.361	.784
VAR00014	75.76	65.360	.346	.258	.787
VAR00015	75.79	64.355	.384	.310	.785
VAR00016	76.04	64.431	.461	.324	.781
VAR00017	75.67	64.587	.369	.291	.786
VAR00018	75.82	65.663	.332	.260	.788
VAR00019	75.88	64.418	.374	.343	.785
VAR00020	75.79	65.589	.348	.298	.787
VAR00021	75.95	64.186	.411	.318	.783
VAR00022	75.88	66.823	.207	.203	.795
VAR00023	75.93	67.961	.123	.234	.801

Table 3. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
79.59	71.000	8.426	21

4.2   Multiple Regression

Regression model fit to data is determined using R , R Square , adjusted R Square, as well as the standard error of the estimate, which are shown in table 4. The multiple correlation coefficient (or R) value is presented in the "R" column. One metric for assessing how well the dependent variable was predicted is R. A high degree of production is shown by the R value of 0.668. The R2 value is shown in the "R Square" column. This is the amount of variance in the dependent variable that the independent variable can account for. With an R2 value of 0.446, 44.6% of the variation in our dependent variable can be explained by our independent variables. The corrected R square, which is 0.434, is meant to appropriately report the data. Anova has been calculated in table 5 and table 6 shows the degree to which an independent variable affects the dependent variable.

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.668[a]	.446	.434	1.97242

[a]Predictors: (Constant), EPMS, ELEARNING, EGRI

Table 5. ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	453.334	3	151.111	38.842	.000[b]
Residual	564.115	145	3.890		
Total	1017.450	148			

[a] Dependent Variable: EHRM
[b] Predictors: (Constant), EPMS, ELEARNING, EGRI

Hypothesis
H0: E-PMS, E- learning, E- GR has no significant effect on E-HRM.
H1: E-PMS, E- learning, E- GR has significant effect on E-HRM.
Hypothesis:
H0: There is no relationship between E-HRM and E-learning, E-PMS, E-GR.
H1: There is relationship between E-HRM and E-learning, E-PMS, E-GR.
   The value of correlation is 0.01 (see table 7). The value should lies between -1 to 1, and also shows that it has less relationship between the variables.

Table 6. ANOVA

Model	Unstandardized Coefficients (B, Std. Error)	Standardized Coefficients (Beta)	t	Sig.
(Constant)	2.542 (1.546)		1.644	.102
ELEARNING	.315 (.082)	.301	3.817	.000
EGRI	.303 (.098)	.281	3.107	.002
EPMS	.198 (.086)	.197	2.313	.022

^a Dependent Variable: EHRM

ᵃ Dependent Variable: EHRM

Table 7. Correlation

		EHRM	ELEARNING	EGRI	EPMS
EHRM	Pearson Correlation	1	.572**	.592**	.544**
	Sig. (2-tailed)		.000	.000	.000
	N	149	149	149	149
ELEARNING	Pearson Correlation	.572**	1	.596**	.527**
	Sig. (2-tailed)	.000		.000	.000
	N	149	149	149	149
EGRI	Pearson Correlation	.592**	.596**	1	.670**
	Sig. (2-tailed)	.000	.000		.000
	N	149	149	149	149
EPMS	Pearson Correlation	.544**	.527**	.670**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	149	149	149	149

** Correlation is significant at the 0.01 level (2-tailed).

4.3 ANOVA

Anova test is demonstrated in table 8.

Table 8. ANOVA

Variable	Source	Sum of Squares	df	Mean Square	F	Sig.
ELEARNING	Between Groups	435.122	13	33.471	9.127	.000
	Within Groups	495.080	135	3.667		
	Total	930.201	148			
EGRI	Between Groups	471.718	13	36.286	12.270	.000
	Within Groups	399.222	135	2.957		
	Total	870.940	148			
EPMS	Between Groups	513.675	13	39.513	10.848	.000
	Within Groups	491.734	135	3.642		
	Total	1005.409	148			

Hypothesis:

H0: There is no relationship between E-HRM and E-learning, E-PMS, E-GR.

H1: There is relationship between E-HRM and E-learning, E-PMS, E-GR.

The P value is less than 0.05 so the null hypothesis is rejected and alternative hypothesis is accepted. There is a positive relationship between E-HRM and E- learning, E-PMS, E-GR. The results are significant; E-HRM application has good effect on organizational performance.

5 Findings

The findings from the study reveal that E-HRM practices have a positive impact on organizational performance and employee satisfaction at 9 Sign Infra Solutions. It was observed that 67.6% of the employees are aware of E-HRM practices, whereas 32.4% are not aware of them. A majority of 76.1% of the employees find E-HRM practices user-friendly and easy to use, while 23.8% disagreed. Furthermore, 68.2% of the employees are satisfied with the training provided by the organization for using E-HRM portals, whereas 31.8% of the employees are not satisfied. Similarly, 68.2% of the employees agree that using E-HRM practices provides them with accurate information, and 68.9% believe it gives accurate information about HR functions, while 31.8% and 31.1% are dissatisfied, respectively. It was noted that 61.6% of the employees receive performance appraisals through the E-Performance Management System (E-PMS), while 38.4% are dissatisfied.

In total, 66.6% of the employees are satisfied with the overall implementation of E-HRM practices in their organization, while 34.4% of the employees expressed dissatisfaction. Interestingly, 76.2% of the employees are interested in the continued use of E-HRM practices in the organization, and 61.6% stated that their company follows E-Selection processes, whereas 38.5% did not agree. Moreover, 64.9% of the employees believe that E-HRM practices are implemented uniformly across all departments, while 35.1% disagreed. Additionally, 66.3% of the employees acknowledge that E-HRM practices help in completing their daily targets, while 33.7% did not find them effective for this purpose. Moreover, 67.6% of the employees believe E-HRM practices help reduce HR forecasting efforts, and 73.5% are satisfied with the information they receive from the company website, whereas 26.5% are not satisfied. A total of 66.2% of employees are satisfied with the E-HRM practices followed by the company, and 63.6% are content with the training courses provided to improve their skills, while 36.4% showed dissatisfaction. In terms of specific functionalities, 73.5% of the employees are satisfied with the E-Payroll practice in the company, and 62.2% believe that the E-HRM application supports decision-making processes, while 37.8% disagreed. Reliability statistics show a Cronbach's alpha value of 0.795, indicating that E-HRM practices are reliable at a good level. Correlation and ANOVA tests produced a significance value of 0.00, reinforcing the positive impact of E-HRM on organizational performance, with an R Square value of 0.446. The study concludes that most of the employees are interested in further usage of E-HRM practices, and the organization's performance has improved significantly since its implementation. The study was conducted at 9 Sign Infra Solutions to assess employee satisfaction and the extent of E-HRM practice adoption. It further highlights that E-HRM systems have a positive and significant impact on E-learning, E-performance management, and E-grievance tracking in the organization.

6 Conclusion

E-HRM practices are essential for raising organizational performance since they give businesses a competitive edge, streamline HR procedures, and increase productivity. Organizations can improve individual and team performance by implementing E-HRM strategies including e-learning, performance management systems, and grievance monitoring. This will guarantee task completion on time and maintain high operational quality. This strategy aids in customer retention and happiness while also enabling firms to quickly adjust to changes in the external environment. The report highlights that E-HRM is an organizational-wide endeavor that involves cooperation between administrators and employees, not only the HR department.Further, by streamlining processes and cutting expenses, E-HRM techniques improve hiring, performance management, and decision-making. Utilizing E-HRM systems can thus promote an atmosphere of ongoing development and progress assisting in the long-term prosperity and sustainability of enterprises.

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