Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6, 5606-5617
2024
Publisher: Learning Gate
DOI: 10.55214/25768484.v8i6.3233

Optimizing employee performance through E-HRM: Insights from its organizations in Trivandrum

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Abstract: Electronic Human Resource Management (e-HRM) influences digital platforms to streamline and improve HR operations like hiring, managing performance, and employee self-service. This technological advancement promises significant improvements in operational efficiency and effectiveness across various HR activities. The importance of e-HRM's impact on employee performance is becoming more widely acknowledged, particularly in dynamic sectors like Information Technology (IT). The effectiveness of e-HRM systems in improving employee outcomes centred on their ability to automate HR processes, provide real-time access to critical information, and facilitate personalized support. These advancements contribute to a more responsive and supportive work environment, which in turn enhances employee satisfaction and performance. This study explores the relationship between e-HRM practices and employee performance in IT firms located in Trivandrum, focusing on how these digital tools influence employee satisfaction and overall job effectiveness. By analyzing various e-HRM strategies and their implementation, the research reveals a substantial association between well-executed e-HRM practices and enhanced employee performance. These results highlight the significance of integrating e-HRM solutions effectively to achieve improved employee engagement, productivity, and satisfaction. This research contributes valuable insights into optimizing e-HRM systems to drive organizational success and employee well-being.

Keywords: *Effectiveness, SPSS, E-human resource management (e-HRM), Employee performance, HR strategies, Implementation, IT sector.*

1. Introduction

In the rapidly evolving landscape of modern business, Human Resource Management (HRM) has emerged as a vital role in driving organizational performance. Traditionally, HRM focused on manual processes and face-to-face interactions to manage recruitment, training, and employee engagement. However, with the advent of technology, these traditional methods have undergone significant transformation, leading to the rise of e-HRM systems. E-HRM initial make known in the mid-1990s, represents the integration of HRM practices with information technology. This approach focuses digital platforms and tools to enhance several HR functions, including performance management, recruitment, training, and employee self-service thereby promising improved efficiency and effectiveness [1]. The strategic significance of HRM has become increasingly evident as organizations strive to gain a competitive edge through effective human capital management. In this context, e-HRM systems offer a revolutionary shift from traditional HR practices, enabling organizations to automate administrative tasks and focus on more strategic HR functions [2]. This transformation is particularly crucial in the IT sector, where the pace of technological advancement and the need for dynamic workforce management are paramount. The IT industry offers an exclusive environment for examining the impact of e-HRM on worker productivity, which is defined by quick technical advancements, significant staff turnover, and ongoing skill development needs.

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E-HRM encompass a range of digital tools designed to streamline HR processes and provide a more user-centric HR experience. These systems typically include enterprise resource planning (ERP) software, cloud-based solutions, mobile applications, and interactive voice response systems. By automating routine HR tasks and providing real-time access to information, e-HRM systems facilitate better decision-making, reduce administrative burdens, and enable more personalized employee management [3]. For instance, e-HRM systems allow employees to update their personal information, access training resources, and receive performance feedback without direct intervention from the HR department. Similarly, managers can use e-HRM tools to conduct analyses, make informed decisions, and communicate with employees more effectively. Despite the numerous advantages offered by e-HRM systems, their implementation cannot be done without challenges. Organizations often come across resistance to change, technological complexities, and the need for adequate training and support. A number of variables, including as the system's architecture, user involvement, and alignment with organizational objectives, can affect how effective e-HRM systems are [4]. For the integration and use of e-HRM systems to be effective, a thorough understanding of these variables is therefore necessary.

This project is to investigate how e-HRM can improve employee effectiveness within the IT sector in Trivandrum. This study looks at how e-HRM affects many aspects of worker performance, including engagement, productivity, and job satisfaction. The goal is to offer important insights on how to use and operate e-HRM systems effectively. The study employs empirical data and case studies to analyze how e-HRM systems influence employee outcomes and contribute to organizational success. The integration of e-HRM systems represents a significant advancement in HRM practices [5], particularly in sectors where technological innovation and efficiency are critical. Recognizing the function of e-HRM is important as businesses continue to manage the challenges of the digital era in enhancing employee effectiveness is crucial for optimizing HR functions and achieving strategic objectives. The depth of knowledge about e-HRM is expanding owing to this research. offering actionable insights for both practitioners and researchers in harnessing the full potential of digital HR solutions.

2. Literature Review

The study conducted by Musa Nyathi and Ray Kekwaletswe (2024) [6] investigated if the influence of e-HRM usage on organizational performance was mediated by employee outcomes, specifically job satisfaction and employee performance. Data obtained through a survey of 35 businesses that employ e-HRM systems, using a partly combined sequential an essential status explanatory design. The study discovered a positive correlation between the use of e-HRM and employee outcomes. Additionally, mediators like job satisfaction and employee performance were found to amplify the influence of e-HRM utilization on organizational performance. The results showed that, in addition to other elements like organizational scale and the HR function's strategic participation, high levels of work satisfaction and employee performance are characteristics of successful e-HRM designs. The study contributed to the understanding of how these contextual variables explain the success of e-HRM systems in creating organizational value.

M. K. Ganeshan and C. Vethirajan (2024) [7] examined how e-HRM systems affect IT personnel' productivity and job satisfaction, comparing them with traditional HR practices. They collected primary data via a structured Google Form questionnaire from 440 IT professionals in Tamil Nadu. The study found that e-HRM significantly enhanced communication efficiency, work-life balance, and overall job satisfaction by improving real-time collaboration and facilitating remote work. Usability and user experience were crucial for engagement. Despite these benefits, challenges such as resistance to change and technical issues were noted. Overall, the research reflected e-HRM's potential to improve HR effectiveness and job satisfaction in the IT sector while suggesting that strategic planning is essential for successful implementation.

Hussein Abduljbbar Najm (2024) [8] analyzed how e-HRM affects gaining a long-term competitive edge for businesses that depend on electronic knowledge. The study aimed to assess how e-HRM dimensions contributed to competitive advantage by linking functions such as electronic recruitment and e-training through technological means. The findings indicated that expanding e-HRM usage enhanced the company's competitive advantage and sustainability. The research revealed a moderate

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6: 5606-5617, 2024
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level of e-HRM adoption and competitive advantage. Significant correlations were found among e-HRM and competitive advantage, indicated importance of adopting e-HRM practices to achieve strategic leadership and competitive edge.

Rashida Adamu Oyoru (2023) [9] evaluated how e-HRM practices such as e-compensation and e-recruitment affect organizational performance in the banking industry in Nigeria. Using Social Systems Theory as a framework, they employed a survey research design and collected primary data through questionnaires. Multiple linear regression with statistical package for social science (SPSS) version 24 was used for analysis. The findings indicated a substantial association between e-recruitment and staff performance, as e-recruitment systems improved service delivery and HR management efficiency. E-compensation also positively impacted productivity and efficiency. By simplifying e-recruitment processes and incorporating online interviews can enhance selection efficiency. Additionally, improvements in e-compensation such as using technology to provide comprehensive compensation information and creating a compensation pamphlet for employees. The study concluded that both e-recruitment and e-compensation positively affected the performance of selected banks.

Priyo Hadi Susananto et al. (2023) [10] explored the way e-HRM effected workers' performance in Indonesia's coal mining sector. Using documentary analysis and interviews with HR managers. Keeping an eye on environmentally conscious employee behavior, the study tried to determine whether e-HRM practices improve worker performance. The outcomes showed a strong correlation between person-job fit, green employee motivation, and e-HRM. The study highlighted that e-HRM affects employee performance directly or indirectly by influencing motivation and job fit. HR departments were advised to support and develop competencies, ensure employee welfare, and address safety and environmental concerns. The findings showed that effective e-HRM practices must consider employee motivation and alignment with green behavior requirements. The study concluded that while e-HRM positively impacts employee performance, it is crucial to strengthen factors like person-job fit and motivation for optimal results in productivity, efficiency, and safety.

Evi Silvana Muchsinati and Rano Ardiansyah (2023) [11] investigated the impact of e-HRM on efficiency in industrial firms in Batam. The study involved three manufacturing firms in Indonesia with 402 participants. Using SPSS and Smart PLS 3, they examined various e-HRM practices and their effects on employee productivity. It was found that e-HRM significantly increased productivity, except for e-communication, which did not affect innovation or productivity as hypothesized. Conversely, e-complaint, e-careers, knowledge-oriented leadership, and ethical leadership positively impacted innovation and productivity. Despite high R-squared values indicating significant effects of e-HRM, some hypotheses were rejected due to inconsistencies.

The research by Neelima Poduval and Meet Bhatt (2023) [12] explored the impact of e-HRM, specifically e-performance management on organizational effectiveness. As technology's presence in the workplace grew, organizations shifted toward e-HRM systems to enhance employee performance and overall effectiveness. The study conducted a systematic literature review and analyzed how e-performance management affects job satisfaction, productivity, and engagement. Findings indicated that e-performance management positively impacted organizational effectiveness by streamlining performance evaluations, setting clear goals, and facilitating continuous improvement. Despite these benefits, challenges such as resistance to change were noted. The study, which surveyed IT employees in Ahmedabad, concluded that e-HRM practices like e-recruitment and e-compensation significantly improved organizational effectiveness by making HR processes more strategic and efficient.

Ahmed Mohammed Alomaria (2023) [13] assessed the correlation between employee engagement, e-HRM, and organizational performance in Saudi Arabian small- and medium-sized businesses. Using a sample of 180 participants and structural equation modeling (SEM-PLS). According to the study, there is no meaningful correlation between organizational success and e-HRM. Yet, a substantial beneficial correlation was shown between e-HRM and employee engagement as well as between employee engagement and organizational efficiency. The results showed how crucial efficient e-HRM procedures are to raising employee engagement, which can then boost organizational performance. The study acknowledged its shortcomings, such as its dependence on self-reported data, which can introduce bias, and its narrow emphasis on a particular region and industry, which can restrict its generalizability.

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Syeda Nazneen Waseemi and Sidra Zeeshani (2023) [14] conducted a relative study to explore the role of knowledge sharing and management (KS&M) as a mediator between electronic E-HRM, organizational innovation capabilities (OIC), and employee productivity (EP) in Pakistan's manufacturing and service sectors. They surveyed 303 employees and used SMARTPLS for multi-group statistical analysis. The study found that while E-HRM positively influenced employee productivity and knowledge sharing in both sectors, In the manufacturing sector, its implications on OIC was negligible, but in the service industry, it was immense. KS&M positively impacted OIC in manufacturing but not in services. The moderating effect of organizational climate on the relationship between KS&M and OIC was significant only in the service sector. Overall, shows the importance of E-HRM and KS&M in enhancing employee productivity but showed that their effects on OIC vary by sector.

L'Écuyer, F., & Raymond, L. (2023) [15] research has often examined IT-based HR management systems from a universalistic perspective, predominantly in large enterprises. However, this study used a configurational methodology to investigate the capabilities of high-performance work systems (HPWS) and e-HRM in small and medium-sized manufacturing firms (SMEs). Analyzing survey data from 206 industrial SMEs using fuzzy set qualitative comparative analysis (fsQCA), the study identified five capability configurations associated with high HR function performance. It also revealed four configurations linked to low performance. The findings demonstrated that HPWS alone remains crucial for HR performance, but investing in e-HRM enhances this performance when aligned with HPWS capabilities. Overall, the research confirmed that strategic alignment of HPWS and e-HRM is key for SME competitiveness.

2.1. Research Gap

Despite substantial research on e-HRM systems, significant gaps remain in understanding their specific impact on employee performance within the IT sector, particularly in regional contexts such as Trivandrum. While previous studies have broadly examined e-HRM's benefits and barriers, there is a lack of focused analysis on how e-HRM strategies directly influence employee satisfaction and performance in small to medium-sized IT enterprises in this specific geographic area. Additionally, existing literature often overlooks the unique challenges faced during e-HRM implementation in these organizations, such as resistance to technological changes and inadequate support systems. In order to close these gaps, this study offers a thorough analysis of the real-world applications of e-HRM techniques, identifying regional barriers, and exploring the relationship between e-HRM and employee satisfaction within Trivandrum's IT sector.

3. Objectives of the Study

- To analyze ways that e-HRM practices afflict worker satisfaction in Trivandrum's IT industry.
- To identify the drawback in the implementation of e-HRM systems within IT organizations in Trivandrum.
- To evaluate how employee performance outcomes in the IT industry relate to e-HRM practices.

4. Proposed Hypotheses

H1: There exists a substantial relation between e-HRM strategies and employee satisfaction.

5. Research Methodology

5.1. Conceptual Framework

The conceptual framework in Figure 1 explains the complex relationship between e-HRM strategies and employee satisfaction. This framework identifies e-HRM strategies as the independent variable, encompassing digital tools and practices such as recruitment and onboarding platforms, performance management systems, e-learning modules, self-service portals, and data management tools. These strategies are expected to influence employee satisfaction, the dependent variable, which includes job

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satisfaction, work-life balance, engagement, and perceived support. Mediating variables, such as the perceived effectiveness of e-HRM tools, are critical in this relationship, encompassing ease of use, accessibility, integration, and the support provided for these tools. By exploring how e-HRM strategies impact employee satisfaction through these mediating factors, the framework provides a organized approach to understanding and analyzing effectiveness of e-HRM implementations in enhancing employee outcomes within the IT sector.

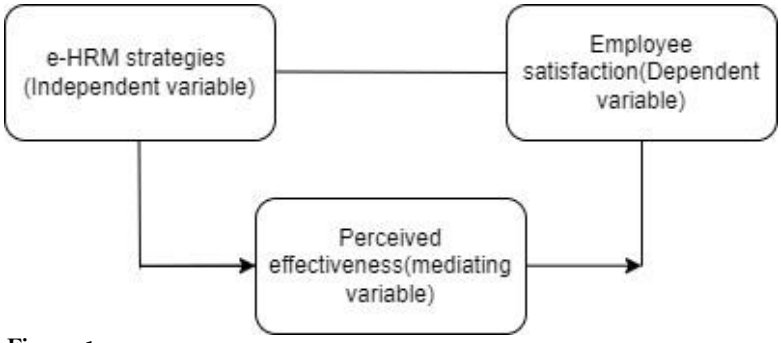

Figure 1.
Conceptual framework.

5.2. Research Design

The research Utilizing a cross-sectional survey approach, design enables data to be collected all at once to provide an overview of employee experiences and perceptions. This approach is suitable for exploring relation between e-HRM strategies and employee satisfaction, as it facilitates the assessment of current practices and their immediate effects. The research design incorporates both quantitative and qualitative elements to provide a comprehensive analysis. Structured questionnaires are gathering quantitative data on employee satisfaction and e-HRM strategies, while open-ended questions are captured qualitative insights into barriers and enablers of e-HRM implementation. This mixed-method approach ensures robust and multi-faceted findings facilitating a comprehensive comprehension of the effect of e-HRM on worker satisfaction and pinpointing important areas in need of development.

5.3. Data Collection

Data are collected through a planned survey distributed to employees working in IT firms in Trivandrum. The survey gathers information on e-HRM strategies, perceived effectiveness, and employee satisfaction. This approach was selected due to its effectiveness in gathering a substantial amount of data from a wide range of respondents.

5.4. Questionnaire Designing

The questionnaire is structured into three key sections. The first section focuses on demographic information, gathering details about the respondents' age, gender, educational background, job role, and tenure within their organization. The second section addresses e-HRM strategies, with questions designed to assess the implementation and effectiveness of various e-HRM components such as e-recruitment, e-training, performance management systems, and employee self-service platforms. Responses in this section are measured using a Likert scale ranging from 1 to 5, evaluating both the extent of implementation and satisfaction with each e-HRM element. The third section explores employee satisfaction, including overall satisfaction, job satisfaction, and engagement levels. This part also employs a Likert scale to assess key aspects of job satisfaction, such as the work environment, HR support, and perceived organizational support. Prior to the final deployment, pilot research is carried out to guarantee the questionnaire's reliability and clarity.

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5.5. Sampling Technique

To assure a representative and complete sample of personnel, a stratified random sampling technique is used. The sampling process involves dividing the target population into distinct methods based on job levels they are entry-level, mid-level, and senior-level employees. This stratification allows for capturing variations in experiences and perceptions related to e-HRM strategies across different organizational roles. Within each level, employees are selected randomly using a computer-based random number generator to minimize selection bias and ensure equal representation from each job level. This method enhances the general applicability of the findings and provides a balanced view of how e-HRM strategies affect employee satisfaction across different hierarchical levels.

5.6. Sampling Area and Population

The population includes employees from UST Global, Oracle, HCL, and Infosys, covering various job roles and levels. The target group consists of entry-level, mid-level, and senior-level employees, offering a comprehensive view of experiences with e-HRM strategies. By capturing perspectives from across job hierarchies, the study offers a comprehensive insight of how e-HRM affects employee happiness, guaranteeing that the results are indicative of the larger industry environment.

5.7. Sampling Unit

Sampling unit in individual employees working in selected IT firms in Trivandrum, including UST Global, Oracle, HCL, and Infosys. By collecting data across various job levels and departments, the study captures diverse experiences with e-HRM systems. This approach allows for a detailed analysis of how e-HRM strategies influence employee satisfaction, providing insights into the effectiveness of these systems and their impact on employee experiences within the IT sector in Trivandrum.

5.8. Pilot Study

To validate the validity of the technique and enhance the research instruments, a pilot study was conducted before the main investigation. This preliminary phase aimed to test the clarity, relevance, and reliability of the survey questionnaire designed to measure the impact of e-HRM strategies on employee satisfaction. Feedback from participants highlighted areas for improvement, such as modifying ambiguous questions and adjusting the scale used for responses to enhance clarity and precision. Additionally, the pilot study assessed the effectiveness of the data collection process and the time required for respondents to complete the survey.

5.9. Statistical Tool for Analysis

Data analysis was conducted using statistical software like SPSS analyses included measures of central tendency (mean, median, mode) to summarize employee satisfaction and e-HRM strategies, and standard deviation and variance to assess response variability. Correlation and regression analyses were used to examine the relationship and impact of e-HRM strategies on employee satisfaction. Reliability testing, using Cronbach's Alpha, ensured the reliability of the questionnaire.

6. Analysis and Findings

6.1. Demographic Distribution

The Demographic distribution analysis is essential for understanding the characteristics of the participants and ensuring that the sample accurately represents the target population of IT employees in Trivandrum. This analysis includes various demographic factors such as age, gender, job role, years of experience, and educational background. Here's a detailed breakdown of how this analysis is conducted, accompanied by a sample Table 1 for illustration.

Edelweiss Applied Science and Technology
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Table 1.
Demographic distribution of respondents.

Demographic variable	Category	Frequency	Percentage (%)
Age	20-30	120	40%
31-40	150	50%	
41-50	30	10%	
51+	0	0%	
Gender	Male	180	60%
Female	120	40%	
Job role	Software developer	140	46.7%
Project manager	80	26.7%	
HR specialist	40	13.3%	
Other	40	13.3%	
Years of experience	1-3 years	100	33.3%
4-6 years	120	40%	
7-10 years	50	16.7%	
10+ years	30	10%	
Educational background	Bachelor's degree	150	50%
Master's degree	100	33.3%	
Doctorate degree	20	6.7%	
Other	30	10%	

The demographic analysis of the respondents reveals that individuals aged 31-40 constitute 50% of the sample, indicating a mature workforce with substantial professional experience. Younger employees (20-30 years old) represent 40%, reflecting a robust entry-level segment. Notably, the absence of participants aged 51 and above suggests a trend toward a younger workforce in Trivandrum's IT sector, likely due to its dynamic nature attracting younger talent. Gender distribution shows a higher proportion of males (60%) compared to females (40%), consistent with traditional patterns in IT. However, the significant representation of female employees points to ongoing efforts for greater gender diversity in the field. Job role distribution reveals that Software Developers make up 46.7% of respondents, followed by Project Managers at 26.7%. HR Specialists and other roles each account for 13.3%, highlighting a range of functions supporting the technical core of IT firms. In terms of experience, 40% of respondents have 4-6 years, representing a well-established group capable of handling complex tasks. Those with 1-3 years of experience account for 33.3%, indicating a strong presence of early-career professionals. Only 10% have over 7 years of experience, suggesting a relatively youthful sector. Educationally, 50% hold a Bachelor's Degree, while 33.3% have a Master's, indicating a well-educated workforce, though advanced degrees are less common. This demographic profile is crucial for understanding the IT workforce characteristics in Trivandrum.

6.2. Regression Analysis

Regression analysis is done based on some assumptions,

Assumption 1: Both variables must be measured continuously, meaning they are either interval or ratio variables.

Assumption 2: It is essential that the two variables have a linear relationship.

Assumption 3: The presence of significant outliers should be absent.

Assumption 4: Observations should be independent, a condition assessable through the Durbin-Watson statistic.

Assumption 5: Homoscedasticity in the data is required, indicating that the variances along the line of best fit remain consistent.

Assumption 6: The regression line's residuals, or errors, have to nearly follow a normal distribution.

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Table 2.
Statements used for measuring e-HRM strategies and satisfaction.

S. No.	Statement
1	e-recruitment reduces the recruitment cost
2	Better quality of the applicant searching through e-recruitment
3	Administrative burden reduces through e-recruitment
4	e-recruitment makes the hiring process faster
5	Usage of e-HRM in selection process brings transparency
6	Practicing e-training aids in maintaining current knowledge
7	Engaging in e-training enhances employees' knowledge
8	Participating in e-training enhances employees' skills
9	The implementation of e-training practices has led to a higher level of motivation among employees
10	e-training practices aid in modifying employees' behavior
11	e-compensation is an effective salary administration system
12	Use of e-compensation for salary calculation enhances speed
13	Use of e-compensation for salary calculation enhances accuracy
14	Pay structure is clearly defined in the e-compensation
15	Online pay slips are preferred compared to printed form
16	e-performance system is geared to understand poor performance issues in timely manner
17	e-performance has facilitated the recognition and development of individual talents, ultimately leading to improved performance
18	Employee performance online calculates performance related pay effectively
19	e-performance is easy to use
20	e-performance increases the efficiency of the system
21	Are you satisfied with the e-HRM system
22	Does the information contents meet your needs
23	Is the e-HRM system accurate
24	Are you satisfied with the accuracy of the e-HRM system
25	Is the information clear
26	Is the e-HRM system user friendly

Previous research delved into the impact of e-HRM strategies on employee satisfaction, revealed a noteworthy correlation between the two. Employees perceived that the adoption of e-HRM strategies enhanced transparency, subsequently elevating both performance and satisfaction levels. Table 2 includes statement used for measuring e-HRM strategies and satisfaction. Prior to conducting regression analysis, a thorough examination of several assumptions was undertaken to guarantee the data's relevance for this investigation. These assessments included verifying data which measured on an interval scale, exhibited a linear relationship between dependent and independent variables. Additionally, absence of significant outliers was confirmed. Multicollinearity was evaluated using VIF statistics, adhering to the desirable range of 1-10.

Homoscedasticity was inspected through scatter plots, demonstrating values closely aligned with a straight line, indicating the absence of heteroscedasticity. Lastly, the distribution of residuals was assessed and found to be within the bounds of normality. Consequently, all assumptions were satisfied, validating the appropriateness of applying regression analysis to the dataset.

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Table 3.
Model summary.

Model	R	R^2	Adjusted R^2	Std. error of the estimate
1	0.811[a]	0.658	0.651	0.32601

a. Predictors: (Constant), B20, B1, B15, B2, B10, B12, B5, B7, B16, B4, B6, B13, B3, B8, B11, B18, B14, B19, B17, B9.

Table 3 displays the outcomes of the regression analysis, indicating a model summary. The analysis yielded a correlation coefficient (r) of 0.811, an R^2 value of 0.658, and an adjusted R^2 value of 0.651, with a standard error of the estimate at 0.32601. The predictors and constant variables included in the model were e-recruitment (B1, B2, B3, B4, B5), e-training (B6, B7, B8, B9, B10), e-compensation (B11, B12, B13, 14, B15), and e-performance appraisal (B16, B17, B18, 19, B20). The dependent variable in this analysis was satisfaction (B21, B22, B23, B24, B25, B26).

Table 4.
ANOVA.

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	188.183	20	9.409	88.532	0.000[b]
	Residual	97.671	919	0.106		
	Total	285.854	939			

a. Dependent variable: satisfaction
b. Predictors: (Constant), B20, B1, B15, B2, B10, B12, B5, B7, B16, B4, B6, B13, B3, B8, B11, B18, B14, B19, B17, B9.

Table 4 displays the results of an ANOVA study with employee satisfaction as the dependent variable and the predictors consist of various statements related to e- HRM practices (B20, B1, B15, B2, B10, B12, B5, B7, B16, B4, B6, B13, B3, B8, B11, B18, B14, B19, B17, B9). Because there was only one dependent variable (satisfaction) and four independent factors (e-recruitment, e-training, e-compensation, and e-performance appraisal), multiple linear regression analysis was used. It displays key statistical values, including sum of squares (188.183), degrees of freedom, mean square (9.409), F-statistic (88.535), and the significance level (sig.). Specifically, the mean square is 9.409, the sum of squares is 188.183, the F-statistic is 88.535, and the residual value is 97.671.

Table 5.
Coefficient's analysis.

Constructs	Unstandardized coefficients		Standardized coefficients	t	Significance level
	B	Std0. error	B		
(Constant)	0.292	0.100		20.925	0.004
B1	-0.004	0.015	-0.005	-0.243	0.808
B2	0.023	0.017	0.030	10.324	0.186
B3	0.008	0.016	0.012	0.517	0.605
B4	0.038	0.017	0.054	20.316	0.021
B5	0.073	0.017	0.104	40.362	0.000
B6	0.056	0.017	0.078	30.359	0.001
B7	0.047	0.016	0.069	20.935	0.003
B8	0.017	0.016	0.024	10.037	0.300
B9	0.044	0.016	0.070	20.712	0.007
B10	0.043	0.016	0.063	20.720	0.007
B11	0.042	0.016	0.063	20.645	0.008

Edelweiss Applied Science and Technology
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B12	0.024	0.017	0.033	10.423	0.155
B13	0.039	0.016	0.059	20.426	0.015
B14	0.059	0.016	0.086	30.608	0.000
B15	0.028	0.015	0.043	10.839	0.066
B16	0.053	0.016	0.075	30.279	0.001
B17	0.113	0.016	0.175	70.145	0.000
B18	0.069	0.016	0.102	40.333	0.000
B19	0.098	0.016	0.147	60.048	0.000
B20	0.058	0.017	0.081	30.345	0.001
a0. Dependent variable: satisfaction					

Given that the significance level ($p < 0.05$) is attained, it points to the dependent and independent variables have a unique relationship. In this context, the p- value is <0.05 for all independent variables, indicating the statistical significance of both unstandardized and standardized beta values. Regression equation is

$$Satisfaction = .292 + .034\,(B4) + .073\,(B5) + .056\,(B6) + .047\,(B7) + .044\,(B9) + .043\,(B10) + .042\,(B11) + .039\,(B13) + .059\,(B14) + .053(B16) + .113\,(B17) + .069\,(B18) + .098\,(B19) + .058\,(B20)$$

The regression equation, delineated in Table 5, illustrates the unstandardized regression coefficient for this model, with a uniform significance value of 0.000 across all independent variables. Upon analyzing the table, it was apparent there is a substantial correlation among the execution of e-HRM strategies and the satisfaction levels of employees. Consequently, acceptance of Hypothesis H1 was warranted, given the observed positive relationship.

6.3. Reliability Analysis

The dependability of fourteen assertions describing various difficulties experienced in implementing e-HRM in the Indian IT sector was assessed using the Cronbach's alpha coefficient. The reliability statistics in Table 6 specifically the Cronbach's alpha, resulting value of 0.929, indicating a high level of reliability in the measurements.

Table 6.
Reliability analysis.

Cronbach's Alpha	N of items
0.929	14

Table 7 presents the descriptive statistics for barriers faced by IT organizations in implementing electronic Human Resource Management (e-HRM) systems. The data, based on responses from 940 participants, highlights various challenges, rated on a scale from 1 (strongly disagree) to 5 (strongly agree). The mean scores indicate that the most significant barriers include a lack of basic knowledge of e-HRM applications (mean = 3.84) and low levels of technical expertise among instructors (mean = 3.90), suggesting that foundational knowledge is crucial for successful implementation. Resistance to change towards new technology (mean = 3.84) and employee fears of technology (mean = 3.78) also emerged as significant concerns. Other notable barriers include privacy and security issues related to new software (mean = 3.89) and the perception that the pace of technological advancements is too fast (mean = 3.87). The data reveals that financial constraints and time shortages are also significant challenges, with mean scores of 3.89 and 3.74, respectively.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6: 5606-5617, 2024
DOI: 10.55214/25768484.v8i6.3233

Table 7.
Descriptive statistics of barriers faced by IT organizations to put e-HRM into practice.

S. No.	Statement	N	Min.	Max.	Mean	SD
1	Lack of basic knowledge of e-HRM application	940	1	5	3.84	1.040
2	Lack of skills for integration	940	1	5	3.81	1.016
3	Low level of technical expertise among instructors	940	1	5	3.90	1.013
4	Shortage of time to adopt new technology	940	1	5	3.74	1.048
5	Deficiency in self-assurance stemming from a limited understanding	940	1	5	3.74	1.032
6	Resistance to change towards new technology	940	1	5	3.84	.979
7	Employee fears from technology	940	1	5	3.78	1.162
8	Privacy & security issue related to new software	940	1	5	3.89	.986
9	Provide the support which is necessary to implement the e-HRM application	940	1	5	3.80	1.010
10	The lack of financial resources has impeded the procurement of new e-HRM IT applications	940	1	5	3.89	.995
11	The employees have a perception that the pace of technological advancements is too fast	940	1	5	3.87	1.049
12	The task of computerizing a significant amount of paperwork is challenging due to its complexity	940	1	5	3.74	1.062
13	No suitable e-HRM or software	940	1	5	3.66	1.132
14	There is a deficiency of dedication and participation from everyone involved	940	1	5	3.81	1.031

Overall, the findings underscore the multifaceted obstacles organizations face when adopting e-HRM, highlighting the need for targeted strategies to address these issues to facilitate successful implementation.

7. Discussion

Regression analysis outcomes show a substantial association among e-HRM practices and employee satisfaction in Trivandrum's IT industry. The high correlation coefficient ($r = 0.811$) and R^2 value of 0.658 assert that e-HRM procedures have a major impact on worker satisfaction. The findings reveal that specific e-HRM components, such as e-recruitment, e-training, e-compensation, and e-performance appraisal, play a crucial role in enhancing job satisfaction and engagement. These outcomes align with prior studies by which also highlighted the positive impact of e-HRM strategies on employee performance and fulfilment. Reliability testing, through Cronbach's Alpha (0.929), confirms the high consistency of the questionnaire items, especially when measuring challenges in e-HRM implementation. The descriptive analysis of barriers highlights key issues like technical expertise gaps, resistance to change, and privacy concerns, validating previous literature on the Organizational adoption of e-HRM systems involves problems. Overall, these findings reinforce the hypothesis (H1) that e-HRM strategies have a substantial association with employee satisfaction. The study offers valuable insights for IT firms in Trivandrum, suggesting that improving e-HRM tools and addressing implementation challenges can lead to higher employee engagement and satisfaction.

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8. Conclusion

The findings concerning how e-HRM methods affect worker performance in Trivandrum IT organizations reveals important light on how digital HR practices can improve worker satisfaction and overall organizational effectiveness. The findings revealed a substantial association between the implementation of e-HRM strategies and improved employee satisfaction, suggesting that the effective use of these digital tools can lead to better engagement, productivity, and job satisfaction. The demographic analysis indicates a predominantly young and educated workforce, with a balanced representation of genders, which reflects the dynamic nature of the IT sector. Reliability testing, through Cronbach's Alpha (0.929), confirms the high consistency. Specific e-HRM strategies, such as streamlined communication, real-time access to HR resources, and personalized employee support, play a critical role in developing a positive work environment. These strategies not only reduce administrative burdens but also empower employees by providing them with more control over their professional development and HR-related decisions. Overall, this study emphasizes how critical it is to match organizational objectives and workforce demands with e-HRM practices, demonstrating that a well-implemented e-HRM system can be a powerful tool for enhancing employee satisfaction and driving organizational success in the rapidly evolving IT sector.

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