



Effectiveness Of Hris Practices In It Sector – A Study

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ABSTRACT

The study titled "Effectiveness of HRIS Practices in the IT Sector" conducted in Hyderabad district, Telangana State, aimed to investigate and identify key measures for enhancing the implementation of Human Resource Information Systems (HRIS) in the Information Technology (IT) industry. The primary objective was to assess how HRIS practices impact HR operations within the IT sector and discover ways to optimize their effectiveness. To achieve the study's objectives, primary data was collected and analyzed. The research employed both Neural analysis and Exploratory Factor Analysis (EFA) techniques. These methods were chosen to identify and prioritize critical factors influencing HRIS implementation in the IT sector within the specific context of Hyderabad, Telangana. The research findings revealed several crucial factors that significantly influence the effectiveness of HRIS practices in the IT industry. Two main factors stood out: "Generate performance reports" and "Centralize employee documents." These findings underscored the pivotal roles these factors play in improving HRIS effectiveness within the IT sector. Furthermore, the exploratory factor analysis highlighted additional important aspects, including the significance of maintaining accurate data, leveraging HRIS for employee feedback, and emphasizing electronic document management. These factors contribute to the establishment of a robust HRIS framework that aims to enhance employee performance. In conclusion, the study identified essential measures to enhance HRIS implementation within the IT sector. These measures include tailoring learning paths for employees, integrating real-time data analytics, and implementing effective feedback mechanisms. By adopting these strategies, HRIS in the IT sector can be optimized to provide personalized skill development opportunities, resource efficiency, and timely feedback to employees. Ultimately, this leads to improved overall performance within technology-driven organizations.

Key Words: HRIS, Effectiveness, Performance, IT

INTRODUCTION

"Human Resource Information System" or "Human Resource Management System" is a system involving various practices wherein HRM interacts with the Information Technology (IT). (Akai and Fishbein, 2012) this system helps in enhancing and increasing the efficiency of Human Resource Management. Overall, the system of Enterprise Resource Planning has one common database known as a universal database that includes information pooled from distinct applications.(Noutsu, Wamba, &Kamdjoug, 2016) studied that appropriate storage of data is provided by Human Resource Information System. Moreover, it is pointed out Human Resource Information System helps in the enhancement of the total quality management, the loyalty of customers, and innovation. Konana and Balasubramanian (2015) found HRIS helps in increasing the perfection and efficacy in all the undertakings of Human Resources that includes payments and other beneficial programs, appointment and selecting new candidates, and performance appraisal, development of employees, etc. The system helps in reducing the level of work for every department and also make sure the better utilization of resources, the tasks are done easily and completed easily, and other processes are uniform in the department for persistent workflow. The Human Resource department overall is assigned with the essential role of ensuring persistent management of patterns of work, tracking of resources, and ensuring all the practices are completed on timely basis. Solutions have been provided based on applications of Information Technology that are readily accessible and will assist the unit in automation of most of their daily work and other difficult jobs in the firm.

(Wijethilaka, 2016) concludes in a study that technological elements, organizational factors along with environmental factors have a significant effect on the execution of Human Resource Information System. Technology and environment were considered essential elements of Human Resource Information System factors. This study demonstrated that “Human Resource Information System” has a guaranteed impact on the performance of the organization. A direct impact of environmental factors can be seen in the adaptation of Human Resource Information System. The study shows a successful impact of the Human Resource Information System on internal environmental factors and external environmental factors. The objective of the research has been achieved, and it is confirmed that the elements of internal environmental and external environment are significant for success of “Human Resource Information System”.

Rand Hani & Bader Yousef (2015), aims at investigating the extent of the applications of Human Resources Information Systems (HRIS) being practiced in Jordanian business organizations. The results indicate that the extent of HRIS being practiced is considered to be moderate. This implies that there are some variations among business organisations in terms of their level of implementing of HRIS applications. The results also showed that the extent of HRIS applications being practiced were found varied among business organizations based on their type of business and length of time in business. However, there were not found varied due to their size of business. Effective human resource management leads an organization to achieve its strategic goals **Sultana & Sohan Haidear (2019)**. In this modern era of innovation, organizations are prone to adopt new technology to conduct day to day operation. We can see a revolution in HR management as more advanced systems are being introduced and embraced by different organizations. They tried to shed light on their human resource system implementation approach. They tried to form a step by step guideline that will help any organization to implement human resource system in the future. In addition to that, we have outlined some key factors that organizations should keep in mind before considering the implementation of a human resource information system.

REVIEW OF LITERATURE

Savalam and Dadhabai (2018) pointed out the increasing investment in HRIS and the imperative need to assess system effectiveness, particularly within the Information Technology (IT) sector. Their empirical study in Mindtree Solutions highlighted the pivotal role of integrated HRIS in achieving high effectiveness, as user satisfaction was evaluated based on system quality, information quality, and system use. In tandem, **Asha Nagendra and Mohit Deshpande (2013)** embarked on an exploration of the extent of HRIS adoption in mid to large organizations, revealing its significant contributions to HR planning, skills inventory, training needs analysis, succession planning, and labor demand-supply analysis. They emphasized the paramount importance of aligning HRIS with organizational strategies and seamlessly integrating it with other business functions for optimal results. Building upon this foundation, **Bader Yousef Obeidat (2014)** delved into the intricate relationship between HRIS functions and Human Resource Management (HRM) functionalities, unearthing the nuanced dynamics that connect certain HRIS dimensions like performance development, knowledge management, and records and compliance to HR functionalities. Furthermore, **Faruk Bhuiyan and Mustafa Manir Chowdhury (2014)** provided a historical perspective on the development of HRIS, tracing its origins to the low-cost era and observing its pivotal role in transitioning HR professionals from traditional administrative roles to more strategic positions during the high-tech era. In a more contemporary context, **Anni Arnav, Chetan T. R, and Chandan K. Reddy (2021)** offered valuable insights into the influence of various variables on HRIS effectiveness within the IT sector in Bengaluru, emphasizing the significant impact of diverse factors on HRIS performance. Conclusively, **Harshith.N, Sujay Mugaloremutt et al. (2022)** highlighted the essence of HRIS as an indispensable tool for modern organizations, effectively merging HR management and information technology. Their study, which focused on factors affecting HRIS efficacy, further underlined the ever-growing importance of these systems in the dynamic landscape of HR management. Collectively, these studies underscore the increasing relevance of HRIS in modern HR management, showcasing its multifaceted impact on organizations, and underscoring the need for ongoing evaluation and alignment with organizational objectives to harness its full potential. On a parallel track, **Kanake and Onyiego (2016)** illuminated the challenges encountered during HRIS adoption, ranging from worker resistance to a lack of skilled personnel, higher maintenance costs, and resistance to organizational change. They underscored the necessity for organizations to define clear objectives, select appropriate HRIS systems, and allocate adequate resources to mitigate these challenges effectively.

Furthermore, **Badhurudheen (2018)** delved into the influence of internal environmental factors on HRIS adoption in the manufacturing sector of Sri Lanka, emphasizing the positive impact of factors such as CEO's socio-technological skills, top management support, centralization, and employee HRIS experience. These insights provide valuable guidance to HR professionals navigating the intricate landscape of HRIS adoption. Meanwhile, **Taylor and Francis (2017)** conducted a comprehensive review spanning four decades of e-HRM research, categorizing factors influencing adoption into the 'TOP' framework, comprising technology, organization, and people. They noted a shift in HR goals from efficiency to improved service provision and

strategic realignment, reflecting the evolving landscape of HR technology. Additionally, **Alam et al. (2016)** delved into the factors influencing HRIS adoption decisions in the hospital industry of Bangladesh, integrating adoption theories to identify critical factors like IT infrastructure, top management support, IT staff capabilities, perceived costs, and competitive pressures. These factors were found to significantly influence HRIS adoption, offering essential insights for organizations in developing countries. Collectively, these studies unravel the intricate dynamics of HRIS implementation, encompassing the hurdles faced and the internal and external factors influencing adoption decisions. Together, they contribute to a comprehensive understanding of HRIS in contemporary HR management, underscoring its multifaceted impact and the ongoing need for evaluation and alignment with organizational objectives.

RESEARCH GAP

The literature survey indicates that numerous studies have predominantly delve into areas such as the relationship between HRIS functions and HRM functionalities, historical evolution, and localized effectiveness assessments. However, there is a notable dearth of comprehensive investigations that address the distinct contextual nuances of the IT industry. Moreover, while some studies have discussed challenges and strategies pertaining to HRIS implementation, a more profound exploration of the specific hurdles encountered in HRIS adoption within the IT sector is warranted. Additionally, the investigation of how internal environmental factors impact HRIS adoption underlines the significance of tailored sector-specific analyses to discern whether these factors manifest differently in the IT field. However, a significant gap is observed in the research in Effectiveness of HRIS Practices is discernible from the referenced literature. Therefore, the current study endeavours to address this research gap with the proposed title, "Effectiveness of HRIS Practices in IT Sector – A study".

OBJECTIVES OF THE STUDY

1. To study the effectiveness of HRIS practices in IT sector.
2. To encapsulate the measures for the effective implementation of HRIS practices in IT sector.

HYPOTHESES OF THE STUDY

H₀ – There is no significant difference between the HRIS practices effectiveness in IT sectors

H₁ – There is a significant difference between the HRIS practices effectiveness in IT sectors

SCOPE OF THE STUYDY

The present study focused on the "Effectiveness of HRIS Practices in IT Sector – A study" The study considers the IT sectors in Hyderabad district of Telangana state. The study considered the Human Resources Information System Practices and collected the primary data from the employees of IT sectors.

RESEARCH STATISTICAL TOOLS

The study adopted the exploratory research approach for the examination of framed objectives. The study mainly focused to know the measures for the effective implementation of HRIS practices.

Sampling Method: The study applied the convenient sampling method for the collection of primary data from the Employees of sampling units i.e., IT sector. The study considered the employees who are having the experience more than one year. The study used the 128 sample for the study.

Statistical Tools: The study applied the two core statistical tools as per the framed objectives. They are as follows,

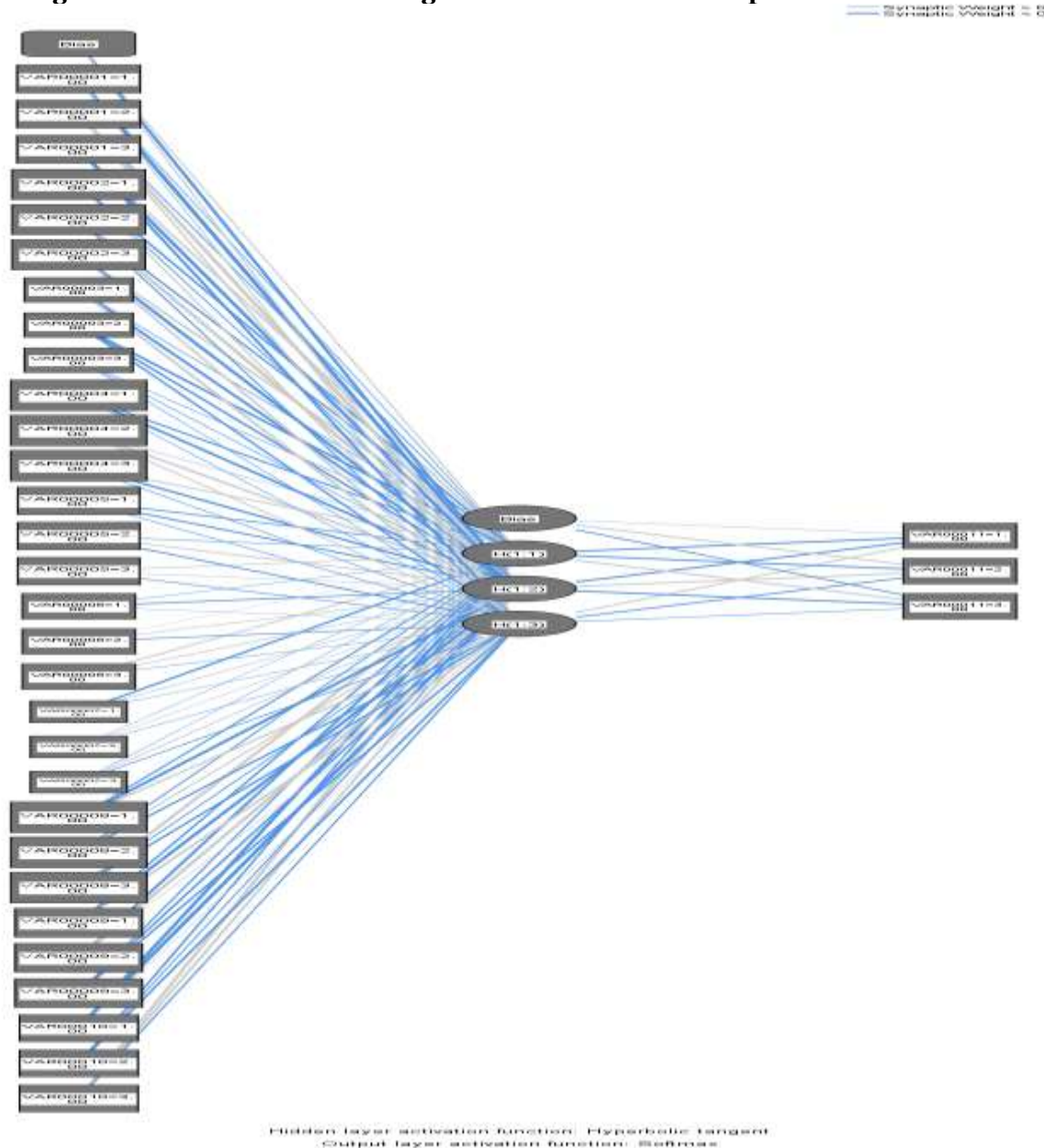
Neural Network: The study applied the Neural Network statistical method for the identification of effectiveness of HRIS practices in IT sector

Exploratory Factor Analysis: The study considered the EFA to know the effective measures to implementation of HRIS Practices in IT sector of Hyderabad district of Telangana state. The EFA high loading factors were considered as the effective measures.

DATA ANALYSIS

Objective 1 - To study the effectiveness of HRIS practices in IT sector

Figure No –1 Neural Networking of effectiveness of HRIS practices in IT sector



The graph illustrates the network information in the form layers. In this graph, each input is linked to a hidden layer and this hidden layer help to generate the output layer to identify the **Effectiveness of HRIS practices in IT sector**. It indicates that there are layers which are used to generate the output layer.

Table No –1 Independent Variable Importance of effectiveness of HRIS practices in IT sector

	Importance	Normalized Importance
Manage job postings and applications	.106	72.3%
Schedule & conduct candidate interviews	.138	93.7%
Set and track performance goals	.058	39.3%
Generate performance reports	.146	99.3%
Measure training effectiveness	.103	69.7%
Manage employee benefits	.073	49.5%
Ensure compensation compliance	.020	13.4%
Centralize employee documents	.147	100.0%
Employee pay and benefits access	.119	80.6%
Ensure data privacy/security	.091	61.6%

Source: Primary Data

The table presents the independent variable importance of various HRIS practices in the IT sector. The study used Neural networking statistical tool to identify the effectiveness of HRIS practices in the IT sector. The table shows "Generate performance reports" and "Centralize employee documents" have the highest normalized importance values of 99.3% and 100.0%, respectively, indicating their critical role in enhancing the effectiveness of HRIS practices in the IT sector. These practices likely contribute significantly to streamlined performance tracking and secure management of employee information. The table presents scheduling and conducting candidate interviews (93.7%), managing job postings and applications (72.3%), and ensuring employee pay and benefits access (80.6%). These findings highlight the critical role of candidate interview management, job application handling, and employee benefits access within the IT sector's HRIS practices. The table also shows relatively lower importance percentages correspond to ensuring compensation compliance (13.4%) and setting/tracking performance goals (39.3%). The study suggests that, to enhance the effectiveness of HRIS practices in the IT sector, implementing automated tracking and alerts for regulatory changes can ensure timely adherence and integrating real-time progress updates and performance analytics can foster goal alignment and continuous improvement. It concludes that, by emphasizing these aspects, the IT industry can leverage HRIS to not only streamline processes but also bolster compliance and performance management, ultimately contributing to a more efficient and effective workforce ecosystem.

Objective 2 -To encapsulate the measures for the effective implementation of HRIS practices in IT sector

Table No –2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.745
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.
	362.917
	36
	.000

Source: Primary Data

The above table represents the measures for the effective implementation of HRIS practices in IT sector. KMO and Bartlett's test is used to determine the sample adequacy of data and remove certain redundancy between the variable the gives the significant data. Here, it was reported KMO test calculated value as 0.745 that is above the recommend level 0.70 which signifies adequate of sampling data. Further, Bartlett's test of sphericity indicates the chi square calculated value 362.917 that is greater than the actual value (101) that concluded significant of data. Thereby confirming that, measures taken for the study are valid for factor analysis.

Table No –3 Component Matrix of measures for the effective implementation of HRIS practices

	Component		
	1	2	3
Information Quality			
Standard data and reports maintained through HRIS	.616		
Regular employee feedback and performance updates via HRIS	.699		
System Quality			
HRIS maintained via electronic documents	.695		
Technical support for HRIS available		.505	
Improved HRIS application in the organization		.630	
HRIS for practical decision making		.460	
System Quality			
HRIS role in employee development			.496
HRIS used for routine employee reviews			.530
HRIS as a base for training program recommendations			.647
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

Source: Primary Data

The table shows the component matrix resulting from the exploratory factor analysis provides insights of the measures for the effective implementation of HRIS practices in IT industries. The following table depicts,

Component 1 exhibits substantial positive loadings for various measures, including “Standard data and reports maintained through HRIS” (0.616), “Regular employee feedback and performance updates via HRIS” (0.699). These findings suggest that maintaining accurate data, utilizing HRIS for employee feedback, and relying on electronic data storage are interconnected practices that synergistically enhance HRIS implementation.

Component 2 high loading measure are “HRIS maintained via electronic documents” (0.695), “Improved HRIS application in the organization” (0.630), indicating its importance in the effective utilization of HRIS. The presence of “Technical support for HRIS available” (0.505) also contributes significantly to this component. However, the factor loading for “HRIS for practical decision making” is lower (0.460).

Component 3, shows a high loading measure for System Use, “HRIS as a base for training program recommendations” (0.647) and “HRIS used for routine employee reviews” (0.530). These measures emphasize the role of HRIS in facilitating informed decisions regarding training programs and routine employee evaluations. On the other hand, the loading for “HRIS role in employee development” is comparatively lower (0.496) within this component.

The conclusion highlights the significant roles that measures with higher loadings in the factor analysis play in enhancing the effectiveness of HRIS practices within the IT sector. The findings indicate that maintaining standardized data and reports, incorporating employee feedback through HRIS, utilizing electronic data storage, and leveraging HRIS for training program recommendations and routine employee reviews are pivotal components of a successful HRIS implementation strategy. Moreover, the availability of technical support and a well-implemented HRIS application further contribute to maximizing the benefits of HRIS practices in the IT sector. To improve lower loading factors, the IT industry should bolster HRIS's role in practical decision-making and align it with employee development strategies. By capitalizing on strengths indicated by higher loading measures, IT organizations can optimize HRIS practices, thereby enhancing efficiency, nurturing skills, and fostering overall organizational success.

FINDINGS OF THE STUDY

1. The study found that, “Generate performance reports” and “Centralize employee documents” are the HRIS practices with the highest normalized importance values of 99.3% and 100.0%, which significance in enhancing HRIS effectiveness within the IT sector.
2. The study highlights that, Lower importance percentages for compensation compliance (13.4%) and performance goal tracking (39.3%) underscore the potential benefits of automated regulatory tracking and real-time progress updates, emphasizing the IT industry's potential to strengthen compliance and performance management through HRIS implementation.
3. The study discovers, the exploratory factor analysis reveals that encompasses measures such as Maintaining accurate data, utilizing HRIS for employee feedbackloading factors ranging from 0.619 to 0.699. These measures collectively contribute to a robust HRIS framework focused on employee performance.
4. The study finds theelectronic documents with a loading of 0.695, underlining the vital role of HRIS maintained through electronic means and its impact on overall HRIS effectiveness.

CONSLUSION OF THE STUDY

The study titled “Effectiveness of HRIS Practices in the IT Sector” employed advanced statistical tools such as Neural analysis and Exploratory Factor Analysis (EFA) to delve into the essential aspects of enhancing HRIS implementation within IT industries. The research findings underscore the paramount significance of two key factors: “Generate performance reports” and “Centralize employee documents.” These factors emerged with the highest normalized importance values, indicating their indispensable roles in elevating HRIS effectiveness within the dynamic IT sector. Moreover, the exploratory factor analysis uncovered a broader set of contributing measures that collectively strengthen the HRIS framework aimed at enhancing employee performance. These encompass the meticulous maintenance of accurate data, harnessing HRIS for valuable employee feedback, and the strategic importance of electronic document management. In light of these findings, it becomes evident that enhancing HRIS implementation in the IT sector can be achieved through a multi-faceted approach. Tailoring learning paths to individual employee needs, integrating real-time data analytics to inform decision-making processes, and instituting effective feedback mechanisms all stand as pillars of this approach. The study concluded that, Expanding upon this, the benefits of such an approach extend beyond the HR department. It translates into offering employees personalized opportunities for skill development, optimizing resource allocation for greater efficiency, and providing timely feedback loops. These collective efforts, when realized, culminate in a significant improvement in overall performance levels within the IT sector, setting the stage for continued growth and innovation in this fast-paced industry.

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