ROLE AND IMPACT OF HUMAN RESOURCE INFORMATION SYSTEM (HRIS) ON ORGANIZATIONAL ACTIVITIES

ARUN KUMAR PANDA
RESEARCH SCHOLAR, SUNRISE UNIVERSITY ALWAR RAJASTHAN

DR. RAKESH VERMA
ASSISTANT PROFESSOR, SUNRISE UNIVERSITY ALWAR RAJASTHAN

Abstract:

Amidst all the essentials needed to set up an organization, Human resource is one of the indispensable and vital components, which plays a crucial role in the entire set-up process. The research history witnessed the first-ever instance of human resource management in the 18th century, and with time, it has been proven to become an area of continuous evolution. One of the evolving parallel fields which have managed to build successful towers is Information Technology. The growing stream has exhibited the potential of making many other sub streams dependent on itself by extending the power potentials for better planning, management, and maintenance.

The revolutionary idea of introducing IT in HRM has opened the research horizon on Human Resource Information Systems (HRIS). The system proved to be advantageous in providing easy access, and it has expanded its benefits in HR operations. The key objective of this research article gravitates towards the evolution of HRIS and defining its myriad roles in the organization's activities.

The experimentation aims to consolidate the relationship and impact of HRIS on the everyday activities of the employees and the organization. The data gathering included collecting data via Google forms filled by HRs of several distinct organizations, and analysis was driven by PSPP statistical analysis tool by applying the chi-square test on the formulated hypothesis. The result report, prepared thereafter reveals the conclusions by confirming the existence of a strong relationship between the taken identities; as a result, the framed hypothesis proved to be accurate and real.

Keywords: HRM, IT, HRIS, Chi-square, PSPP, Organizations

INTRODUCTION

In the current decade, globalization is needed for the growth of the organizations, and it's become the priority for every organization to sustain in the global market [1]. Humans are treated as the most cardinal resources and assets for any organization as they can build and collapse any organization at any point in time. Every department of any organization is playing its significant role in the growth of the organization. Still, the human resource department is considered as a substantial department that works for the development of the organization as this dealing with human management [2]. The current decade is also known as the digital world. In this era, every aspect of life is connected through the internet like social life, personal information, payment mode, shopping, and many more. The Internet is playing a vast role in changing human life, from tradition to digital life. The Internet has solved many problems of humans to make them comfortable in personal and professional life. Organizations are using Internet or IT services to collect and process huge amount of information, so human resource department has now changed their work culture to information technology (IT) to achieve the vision and mission of the organization [3]. Initially, with information

technology, organizations started automating their administrative tasks only than complete automation of the system [4]. Currently, small and medium enterprises' human resource departments are also shifted to information technology to enhance their efficiency and management practice [5]. Human resource management and information technology, have together proved to purvey improving the system and accruing the effectiveness to resolve tasks like gathering, storing, processing, retrieve, manipulate, maintaining, and distributing information among the organization and this all termed as HRIS [6]. To change HRM to digital form with the help of technology is known as e-HRM [7]. From the past decades storing and retrieval data is very important to extract the information and for that database is required, which is a limitation of our traditional systems but HRIS in current scenarios solved this problem by introducing the high structured databases. This approach creates a new perception in conducting and managing the organizations in a very effective manner. HRIS is not helping the HR department but also empowers the employees of the organization regarding the flow of information. IT changes the face of the HR department in terms of its performance, roles, and effectiveness [8] HRIS is the combination of software, hardware,

function modules, policies, practices, and organizational procedures automated in the system to conduct the operational processes of the HR department and their managers [9]. HRIS is helping the mangers to process employee salary, payrolls, rewards, leave records, appraisals, benefits, and many more, which is more commonly the same in all organizations [10]. It decreases the cost, increases productivity, quick response, effective decision-making, and better customer support system with the help of HRIS [11]. ERP software is used by the organization to merge and accessed all activities related to human resources and information technology in a single database. HRIS enhances the decision making of the HR manager as through HRIS, managers will get the right information at the right time, which decreases the risk of bad decision making. HRIS also provide the module management to the different person; what type of data can be seen by the employee.

OBJECTIVES

Our study focused to explore HRIS, its role, and its functionalities in any organization. HRIS is become the helping hand in analyzing the information to employees and organizations; the significant objectives of the study are given below: To segregate the

underlying the concepts involved in HRIS by analyzing the HRM and IT domain individually. To summarize and produce a report on the evolution of HRIS, describing the details of its role and applications in the profit of the organizations. To trace, identify, and verify the relationship between the organizational activities and HRIS.

HUMAN RESOURCE MANAGEMENT

Human resource management was evolved in the 18th century to enhance the organization, and later on, this department was deployed to recruit the employees for the organization. For the betterment and welfare of the employees' organizations create the HR department. The very first HR department was recognized by the National Institute of Industrial Psychology (NIIP) in the year 1921. The HR department was not dealing with the strategic issues for practitioners and academicians till the mid-1990s, but today in the 21st century HR department is considered to be a strategic partner for any company or organization growth. Human resource management policies are revised day by day for the betterment of employee and organization growth. Human resource management is majorly concerned with three issues: -

- Assessment of how much staff is required

- Fulfilling the needed requirement of staff

- Maintaining the current services to staff and how services can be improved.

The HR department is considered as the most crucial department of the organization as this department is dealing with employees of the firms, and employees are regarded as a valuable resource. The HR department is connected throughout the period of existence in organization (i.e., Recruitment to Resignation). HRM is a very elastic term because of its applications found different by researchers [12]. [13] Introduce HRM as an activity or task used by the other managers of the organization to maximize employee performance in terms of their productivity, quality, and effectiveness. Every organization has some goals which they want to achieve, and HRM is the process that helps organizations to utilize their human resources effectively to reach their goals [14]. HRM is a process to manages the employees in terms of recruitment, training, rewards and compensation, friendly environment, and many more [15]. HRM is considered as a system that takes care of how employees are recruited and their management in all

aspects related to the organizational growth [16]. HRM is the department that is responsible for making policies and practices for the employees in context to the employee and organizational growth. HRM adds on high-performance work culture among the employees of different departments in the organization [17]. Basically, in an organization, HRM plays a vital role in connecting people to utilize their capabilities in all aspects to achieve the goals. HRM is not related to management or employees only, but it creates a bridge between the employee and management for better understanding. HRM policies and practice required updating time to time so those employees get motivated towards their job and goals.

INFORMATION SYSTEM

The current era is called to be a digitalized world, and the information system is playing a massive role in everyone's life. An information system is a collection of different components that are used to collect, store, and processing the data to retrieve useful information to get knowledge. Today all organizations are dependent upon information systems to complete and manage their tasks. An information system is used by every department of an organization to manage

their studies efficiently. E-commerce companies like Amazon, Flipkart, Alibaba, and many more are relying on the information system to process and enhance their business and provides better service to their customers. Other than companies today, individual life is also dependent on information systems to conduct the study, shopping, social media, and entertainment. Information technology transforms operations of every sector, so it becomes mandatory for the organization to switch its paper-based strategy to the electronic mode for effective strategic management.

EVOLUTION OF HRIS

Five decades back from today, computers are used in the HR department to perform some administrative tasks like maintain attendance and payroll services. In the 1960s HR department enhance their services and start using the IS into their other financial activities. Later on, the organization begins to develop their data systems to store and perform their regular tasks. Research shows that in the 1980s, approximately 40% of companies adopt HRIS, and other organizations are interested in adopting this technology. With the advancement of technology, HRIS added more features in its software like database management system and different

packaged application. The development of the HRIS to the next level depends upon the organizational size and its management. Typically, HRIS consists of a module used to do administrative tasks like employee monitoring, payroll, rewards, leave management, etc. The primary purpose of HRIS is to integrate the technology, enhance efficiency and effectiveness, and facilitate the usage of IT [18]. HRIS covers the essential functionalities required for end-to-end HRM like recruitment, performance management, learning, development, and many more. HRIS is a software package that included different modules for different tasks and which can either run on the organizational own technical infrastructure or cloud-based. Nowadays leading organizations are using cloud-based technology for their HRIS regarding security, storage, efficiency, flexibility, updating, cost, recovery, and many more.

HUMAN RESOURCE INFORMATION SYSTEM

HRIS is the system that the HR department makes use of to carry out its responsibilities. For the HR department to carry out its human resources tasks (e.g. payroll), the HRIS is utilized to collect, store, retain, retrieve, and validate data as

per [19]. In the words of [20], an HRIS is a technology-based system that is utilized by the HR department to store, analyse, process, and disseminate pertinent information. One system, HRIS, combines HR and IT, allowing them to work together more efficiently.

However, HRIS does not include the processing software and technology, but it does contain the people as well as the policies, practices, and data needed to run the HR department effectively. When all of the data is uploaded electronically or into a computer, HRIS is utilized to process it quickly and efficiently.

While this is true, HRIS can also assist the business in analysing and controlling the various HR- related operations. HRIS is a hybrid of human resources management and information technology, with a specific goal in mind when it is put into practice. HRIS is a combination of HRM and information technology; it has some fundamental objective to achieve when HRIS is implemented. Objectives are shown in Figure 1. HRIS has to provide accurate information regarding the HRM functionalities and other factors. Information provided by the HRIS must be relevant. The information must be provided on time [21] – [25].
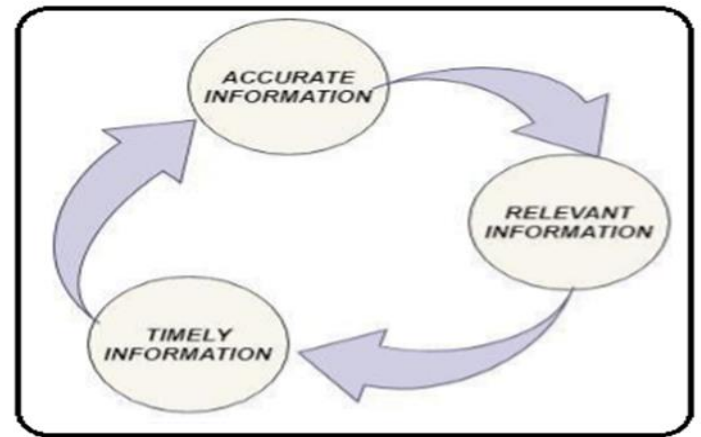
Figure 1: HRIS

Objectives [26] Information is required in every phase. Organizations call for the information regarding their HR and their functionalities, but regarding the internal information to analyze data and purposing planning, there is a need for external information. So HRIS is helping organizations and employees to collect, store, analyze, and dispense the information received from the internal and external environment. The flow and type of information in HRIS is given in Figure 2.
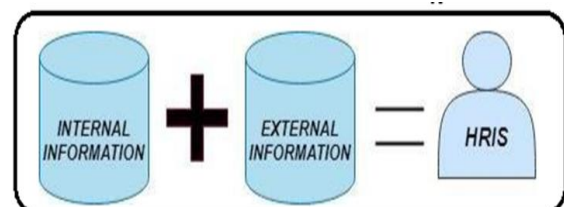
HRIS system is used to store the data as input from users, further used by HR to track the employee record. According to [27], our HRM mainly focused on

collecting and storing employee data to calculate their attendance, salaries, leave, and other factors. So, there are majorly three components in HRIS, which are shown in Figure 3.
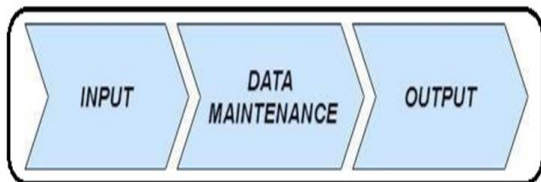

Figure 3: HRIS Components [26]

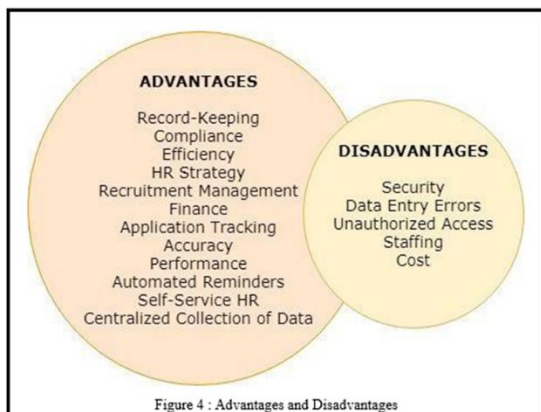Advantages and disadvantages of HRIS is given in Figure 4.

Figure 4 : Advantages and Disadvantages

ROLE AND APPLICATION OF HRIS

Information Availability from data

In the current era, companies integrated their HRIS to other HR activities to analyze their data efficiently in an efficient manner. HR modules like payroll, leave management, time and attendance management, updating of data, and many

more are connected to HRIS for the better results. This system allows detailed information for almost all HR modules. HRIS is helping the organization to make fast decision making and better HR planning.

Human resource analysis

HRIS system is helping the organizations to conduct the HR analysis, which is required to be done for planning and decision making. Organizations make their decisions based on employee capabilities and performance to make their employees happy and skillful. Through the HRIS, organizations can develop useful modules to enhance their employee and organization performance.

Short reports and dashboards

Technology is helping organizations to create better infrastructure for employees as well as for management. Data is collected from the different sources and stored in a centralized place so, HRIS give access to the dashboard and generate the additional reports as per the requirement of the organization which further allow the management the make decision and strategies to increase the organization performance and profits. HRIS reports providing real-time information from the

data stored and help organizations in different ways like leave, payroll, rewards, performance, etc. This can be further bradawl down to locations, business units, functions, and departments in various ways.

Forecasting and Planning

Every organization needs to predict or estimate the work to be done to better the organization, so the input of the HR analysis is used as feedback to the organization's future requirements. It will help the organization in the recruitment process, turnover, services, training, and many other factors to erect a skilled workforce. Advancement in the HRIS system allows organizations in human capital and financial management for better decision making. HRIS is helpful for the organizations, and our concern is where the HRIS has real implications, so there are several applications and shown in Figure 5.

Figure 5 : Application of the HRIS System [26]
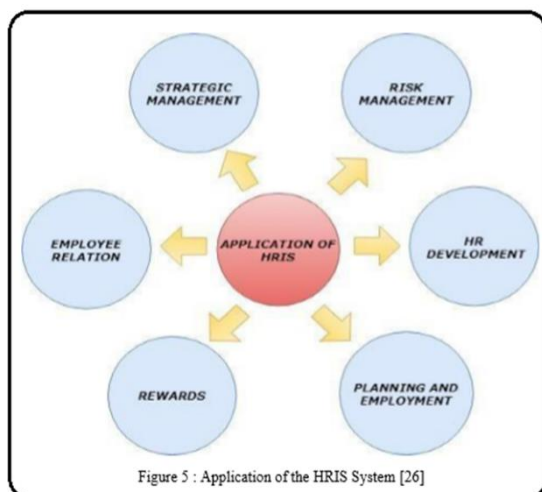
LITERATURE REVIEW AND RELATED WORK

[3] conducted a study to identify the role of HRIS in Singapore organizations. The survey is accomplished through a questionnaire for 500 organizations; the author considered 110 (22.2%) responses. Data is collected through the crucial informant method [28]. The current study is only focused on HRIS practices and its impact, and according to the author, there is a lot of HRIS application which in the future, can be explored and developed by the vendors to improve competitiveness. For the future scope, they can examine the particular type of HRIS method and consider its impact on adoption.

[29] conducted a study to find to make use of IT and the roles and effectiveness of the HR function. A different hypothesis is given by the author to justify the relationship between IT and HR processes. Data is collected through mail surveys to 1,556 HR executives of Canada based companies and 210 (Effective response rate is 13.6%) responses received by the author from the different executives. From the study, the author found that all IT services are not given practical usage to the organizations. IT is helping the organization to store data, payroll, charts, posting advertisements, and

calculating cost. Still, IT received a low level for services like self-assessment, ergonomics assessment assistance, requirement, changes to their benefits, and employee assistance programs. This result shows that IT is used for administrative tasks in organizations rather than decision support systems [30].

[31] studied four case studies on HRIS and found that HR roles are enhanced by introducing the HRIS in the organization. Earlier all administrative tasks are done manually, but HRIS improved the performance of existing administrative tasks and provided outstanding contributions at the strategic level. A case study is conducted on four Australian based organizations and found that HRIS increased the strategic focus on mainly three factors; organizational attention, technological response, and change management. The study found that to enhance the HR roles as strategic partners HRIS is hindered by three challenges. Firstly, staff commitment and the resources needed to implement HRIS; the second challenge is to manage the complex functionalities of the HRIS and, lastly, acceptance of the HRIS among the staff and managers.

[32] focused on the introduction of the different IT function in the HRM. The study is conducted on 106 IT managers and professionals of other sectors in Turkey through questionnaires. Based on the questionnaire author develop a hypothesis to find the evidence that IT applications have an impact on HRM and to prove these hypotheses ANOVA test is conducted on the collected dataset. According to the author, 90% of organizations use computer technology like word, excel, and PowerPoint services for their general HR functions. In the future, they are going to invest more in other IT services. The hypothesis result shows that the IT tools used by the organization and HR application are not broadly integrated to make a single portal as a type of IT changes according to the sector. This study is confined to Turkey only. According to 71% of respondents of this study, their organizations have no plan to restructure their HR department, and technology is limiting their scope and making weak their workforce.

[33] explored the different factors which influence the public sector organizations to adopt the HRIS. The study is conducted on 11 Australia based companies through interviews from 16 various representatives from these organizations. Interviews from

the 16 representatives were conducted on Communications and media, Education, Health, Financial Services, Natural resources, Utilities, and Defense categories. They found that factors like accessibility, efficiency, integration, and user-friendliness positively impact after adopting the HRIS. TOE model (analytical tool) is used to confirm the adoption of HRIS in the context of organizational, environmental, and technology.

[34] conducted a study to find the role of IT and virtual organization structure in the field of HRM. IT is used by the organization to analyze the information, and with the help of IT, they entered into the new era that is e-HRM. The study is conducted based on a hypothesis developed for 320 companies of information and electronics companies in Taiwan. Data is collected from the Securities and Futures Commission database, Ministry of Finance, ROC, Taiwan. The questionnaire was sent to the general managers of the selected companies, and after receiving the responses, 860 employees from 86 companies' data are considered to conduct the study. IT and VO implementation in the organization is responded positively, and this also has a positive relationship between employees' creativity and organizational innovation. VO, in collaboration, IT is

providing the essential services for the organization changes, and IT is considered as a strategic weapon for the organizations. In the future, some more factors like e-recruitment, e-learning, and many more must be addressed, which can help organizations for innovative growth.

[35] conducted their study to find the relationship between HRIS and HRM functionalities. Questionnaire of 56 questions was sent to different banks of Jordan, and due to privacy issue, 123 questionnaires (response rate is 61.5%) was returned to the author for processing. Data is analyzed through SPSS version 17 and found HRIS has a relationship with HRM functionalities. Different hypotheses are developed to see the connection, but all theories are not accepted in this study. The study accepted the primary hypothesis to find the relationship between HRIs and HR functionalities. Dimensions considered by author are not obtained and found no relationship with HR functionalities. In contrast, dimensions like performance development, knowledge management, and records and compliance of HRIS are received and associated with HR functionalities.

[36] conducted study on medium to large scale organization for planning their HR

activities through HRIS. Data is collected through a questionnaire from 50 HR managers and executives of Pune based three organizations. According to the author, the organization is spending a large amount of money to buy an ERP system, but they use HRIS services to perform administrative work. HRIS can perform other tasks effectively, like HR planning, e-recruitment, training, etc. The study highlights that there is a need to introduce a more intelligent feature in HRIS to enhance the effectiveness of HR planning and result in that there is a significant relationship between HRIS recruiting and HR planning. HRIS showed its satisfactory contribution towards the recruitment, planning, and training function of HR. HRIS is helping the organization in saving their time and cost. Apart from the administrative task, HRIS must be integrated with other business planning to better the organization.

[10] conducted a review on the role of HRIS in organizations. They stated the advantages and disadvantages of the information system in context to survive in the global market. Strategic implementation of the HRIS will improve the status of the HR professionals and executives within the organizations. HRIS will help organizations to create and implement the knowledge-based resources. According to [30], implementation of the HRIS system varies from organization to organization. For large scale organizations, it is advantageous as compared to medium and small-scale organizations.[37][38] argue that most organizations are using HRIS to perform their administrative task only rather than strategic purposes.

[39] conducted a study on e-HRM technology by considering the dataset of 5665 companies located in 32 different countries. Using non-recursive simultaneous equation models, the author results that HR and e-HRM are related to each other. To conduct this study author taken data from the 2003-2005 carnet survey, which includes the survey of business schools running in 40 countries on HR policies and practices [40]. The questionnaire was given to senior HR managers only to avoid the guessing on questions, as they can give all the answer accurately. The author considered a 6 to 22% response rate for the countries to conduct this study, and finally, they consider data sample of 5,665 companies. ANOVA test is executed on the sample data and results in that there is no significance difference in level of e-HRM, HR strategic involvement, business strategy, or HRIS outsourcing.

[41] conduct their study to find the effect of HRIS on HRM productivity through a survey on HR experts from different organizations. The author mailed a questionnaire to 500 HR professionals and considered 187 responses for their study, which is expected are per [42] study. The author designed 23 questions to conduct their study with the help of [43] study. The author uses smart PLS 3.0 software (Hair Jr et al., 2016) for analyzing the outer and inner parameters to calculate composite reliability (CR) and average variance extracted (AVE). A result shows 59% of the variance in HRM productivity. According to 79% of respondents, PMS implementation in their organization coerces the cultural strategies to increase the human assets. Conducted study to observe the relationship between IT and HRM in Nigerian university in context to examine tool and up to what extent IT influence the HR procedures. The survey is conducted on 50 members of the HR department through a questionnaire. Two hypotheses were designed to find the relationship between IT and HRM, which is further tested using regression and correlation analysis. In the end, after the analysis author results in that IT is affecting the HRM procedures. After conducting multiple regression analyses, they have found a considerable impact on IT tools on HRM procedures.

[6] conducted a study on the organization where HRIS was introduced recently. The survey is performed using a questionnaire filled by the employees of a particular organization. Chi-square test is applied to the collected data, and the author concludes those employees are fully satisfied in adopting the HRIS. According to the author, HRIS must be implemented systematically as it plays an essential role in developing an organization. Every organization has its structure of working, so it will be studied well before implementing a new system.

METHODOLOGY

Our research is based on information gathered by filling out a Google form and sending it in via mail, social media, or another channel. A wide range of industries and businesses are represented among the people who took the survey.

Formal questionnaires were created to elicit information from other members of the HR department. The Google form received 35 responses in total. Respondents were asked to rate their level of agreement with statements using the Likert Scale.

The purposive sampling method is used to gather data from a varied range of organizations across a range of industries. The survey study relied on primary and secondary data sources, and preliminary information was gathered using a specially created questionnaire. The questionnaire was only used to gather data for this study, and nothing else. In secondary sources, information is gathered from a variety of sources such as the Internet, books, articles, and journals.

Data Preparation

The information is gathered through the responses to the Google form, and the information is subsequently downloaded in the csv file format. Because the PSPP statistical tool is being used to perform the current study, data must be generated in the sav format, which is recognized by the PSPP tool that was utilized to conduct the previous research. There are a total of 35 participants in the current study. A handy sampling procedure with a non- probability distribution is applied.

Data Analysis Techniques

An exploratory research design is employed for this investigation. Using the PSPP tool, we did a descriptive analysis of the data. The PSPP is a statistical tool used to assess the data that has been collected. The acquired data is subjected to frequency and descriptive analyses in order to determine the quality of the data based on the mean, standard deviation, minimum and maximum values of the data.

Scale Items

In this study, both independent and dependent factors are taken into consideration in order to analyses experiment. The questionnaire is based on a variety of scale items that assist the class in analyzing the role of HRIS as well as the influence of HRIS on the organization and personal aspects of their lives. Socio-demographic information (Age, gender, size of the organization, profile, etc.).

Frequency Analysis

In order to carry out frequency analyses on the different independent variables, the considered tool is used, and the frequency of each variable is listed Table 1Table 2 Table 3 Table 4 Table 5 Table 6 Table 7 Table 8 Table 9.

Table 1: Gender Analysis

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent

Male	1	28	80	80	80
Female	2	7	20	20	100
Total		35	100	100	

Table 2: Marital Status Analysis

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Married	1	20	57.14	57.14	57.14
Unmarried	2	15	42.86	42.86	100
Total		35	100	100	

Table 3: Age Analysis

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
20 - 30	2	24	68.57	68.57	68.57
30-40	3	11	31.43	31.43	100
Total		35	100	100	

Table 4: Qualification Analysis

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Gradua	1	9	25.71	25.71	25.71

te					
Post Graduate	2	26	74.29	74.29	100
Total		35	100	100	

Table 5: Job Profile Analysis

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
HR Executive	1	16	45.71	45.71	45.71
Assistant Manager	2	4	11.43	11.43	57.14
Manager	3	3	8.57	8.57	65.71
Senior Manager	4	12	34.29	34.29	100
Total		35	100	100	

Table 6: Organization Type Analysis

Value	Value	Frequency	Percent	Valid Perce	Cum Perce

Label				nt	nt
Private	3	35	100	100	100
Total		35	100	100	

Table 7: Size of Organization Analysis

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Less than 100	1	9	25.71	25.71	25.71
100-500	2	10	28.57	28.57	54.29
500-1000	3	4	11.43	11.43	65.71
More than 1000	4	12	34.29	34.29	100
Total		35	100	100	

Table 8: Experience (In Years) Analysis

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Less than 1	1	12	34.29	34.29	34.29
1-5	2	9	25.71	25.71	60
5-10	3	14	40	40	100
Total		35	100	100	

Table 9: Is your Organization Using HRIS

Valu	Valu	Frequenc	Percen	Valid	Cum

e Label	e	y	t	Percent	Percent
Yes	1	26	74.29	74.29	74.29
No	2	9	25.71	25.71	100
Total		35	100	100	

Descriptive Analysis

Descriptive analyses for the different independent variables are done using the considered tool, and details of the frequency of each variable are given in the Table 10.

Table 10: Descriptive Analysis of Independent Variable

Variable	N	Mean	Std Dev	Variance	Kurtosis	S.E. Kurt	Skewness	S.E. Skew	Min	Max
Gender	35	1.2	0.41	0.16	0.48	0.78	1.57	0.4	1	2
Marital Statu	35	1.43	0.5	0.25	-2.03	0.78	0.3	0.4	1	2

Variable	N	Mean	Std Dev	Variance	Kurtosis	S.E. Kurt	Skewness	S.E. Skew	Min	Max
s										
Age	35	2.31	0.47	0.22	-1.38	0.78	0.84	0.4	2	3
Qualification	35	1.74	0.44	0.2	-0.69	0.78	-1.16	0.4	1	2
Job Profile	35	2.31	1.37	1.87	-1.82	0.78	0.27	0.4	1	4
Type of Organization	35	3	0	0	.	.	.	.	3	3
Size of Organization	35	2.54	1.22	1.49	-1.61	0.78	0.05	0.4	1	4
Experience	35	2.06	0.87	0.76	-1.71	0.78	-0.11	0.4	1	3
Is your organization using the HRIS system?	35	1.26	0.44	0.2	-0.69	0.78	1.16	0.4	1	2

HYPOTHESIS AND RESULTS

The following hypothesis is being considered by the author in relation to this investigation.

H0: No strong relationship between the role of training and HRIS.

H1: Strong relationship between the role of training and HRIS.

H2: No strong relationship between day-to-day employee activities and HRIS.

H3: Strong relationship between day-to-day employee activities and HRIS.

H4: No strong relationship between employee relations and HRIS.

H5: Strong relationship between employee relations and HRIS.

The PSPP program is used to apply Chi-square test for the information acquired in order to accept or reject the formulated hypothesis. The results of the Chi-Square test on the dataset under consideration are shown in Table 11, Table 12 and Table 13.

H0: No strong relationship between the role of training and HRIS.

H1: Strong relationship between the role of training and HRIS.

Table 11: Test Results of Hypothesis H0 and H1

O	E	(O-E)	(O-E)2	(O-E)2/E
22	11.67	10.33	106.7089	9.14
4	11.67	-7.67	58.8289	5.04
9	11.67	-2.67	7.1289	0.61
Total				14.80

In order to conduct the experiment, we have considered the level of significance $\alpha = 0.01$ and the degree of freedom

2. The probability level for this situation is 9.21. Chi-square value 14.80 > 9.21 probability level (Table 11: Test Results of Hypothesis H0 and H1).

Results depict that hypothesis H0 is rejected and hypothesis H1 is accepted, so it concludes the occurrence of strong relationship between the role of training and HRIS.

H2: No strong relationship between day-to-day employee activities and HRIS.

H3: Strong relationship between day-to-day employee activities and HRIS.

Table 12: Test Results of Hypothesis H2 and H3

O	E	(O-E)	(O-E)2	(O-E)2/E
22	11.67	10.33	106.7089	9.14
4	11.67	-7.67	58.8289	5.04
9	11.67	-2.67	7.1289	0.61
Total				14.80

In order to conduct the experiment, we used a threshold significance of 0.05 and the degree of freedom 2. For this situation, the probability level is 5.99. Chi-square value is 14.80 > 5.99 and probability level of 14.80. (Table 12: Test Results of Hypothesis H2 and H3).

The findings demonstrate that the hypothesis H2 is rejected and the hypothesis H3 is accepted, which leads to the conclusion that there is a significant association between day-to-day staff activities and human resource information systems.

H4: No strong relationship between employee relations and HRIS.

H5: Strong relationship between employee relations and HRIS.

Table 13: Test Results of Hypothesis H4 and H5

O	E	(O-E)	(O-E)2	(O-E)2/E
31	11.67	19.33	373.6489	32.02
4	11.67	-7.67	58.8289	5.04
Total				37.06

To conduct the experiment, we used the level of significance 0.05 and the degree of freedom 1. This has a probability level of 3.84 based on the chi-square value of 37.06 > 3.84 and the probability level of 3.84. (Table 13: Test Results of Hypothesis H4 and H5) The findings demonstrate that the hypothesis H4 is rejected and the hypothesis H5 is accepted, which leads to the conclusion that there is a significant relationship between employee relations and human resource information systems.

CONCLUSION AND FUTURE SCOPE

A chi-square test was conducted with significance levels of 0.01 and 0.05 as well as 2 and 1, respectively, and chi-square values of 9.21, 5.99, and 3.84 as the corresponding tabular values. From the results of the experiment given above, the following conclusion can be drawn. Given that the evaluated chi-square values for the factors such as the role of training (14.80), day-to-day activities (14.80), and employee relationship (37.06) are greater than the tabular chi-square value, we can conclude that there is a strong correlation between the Human Resource Information Systems (HRIS) and the employee activities performed through the Human Resource Information Systems (HRIS). Our findings indicate that Human Resource Information Systems (HRIS) contributes to the growth of the business and the simplicity with which staff can execute tasks. The deployment of a sophisticated tool for training the model by amassing a larger dataset, as well as the application of machine learning and deep learning approaches for estimating the influence of Human Resource Information Systems (HRIS) on organizational growth and employee activities, are the future investigations presented thus far.

REFERENCES

[1] J. Arnerić, D. Garbin Praničević, and I. Tadić, "The use of human resources information system (HRIS) in Croatian hotels on the Adriatic Coast: A survey," Glob. Bus. Econ. Antology, vol. 1, pp. 110–121, 2007.

[2] M. M. Al Shobaki, S. S. A. Naser, Y. M. A. Amuna, and S. A. El Talla, "The Efficiency of Information Technology and its Role of e-HRM in the Palestinian Universities," 2017.

[3] T. S. H. Teo, L. G. Soon, and S. A. Fedric, "Adoption and impact of human resource information systems (HRIS)," Res. Pract. Hum. Resour. Manag., vol. 9, no. 1, pp. 101–117, 2001.

[4] S. Ashbaugh and R. Miranda, "Technology for human resources management: Seven questions and answers," Public Pers. Manage., vol. 31, no. 1, pp. 7–20, 2002.

[5] A. N. Mukherjee, S. Bhattacharyya, and R. Bera, "Role of information technology in human resource management of SME: A study on the use of applicant tracking system," IBMRD's J. Manag. Res., vol. 3, no. 1, pp. 1–22, 2014.

[6] K. Meenalochani, "a Study on the Impact of the Implementation of Human Resource Information System (Hris) Among Information Technology Employees in Selected Sector Areas of Tamilnadu," vol. XIII, no. I, pp. 313–317, 2020.

[7] B. Hopkins and J. Markham, "Electronic Human Resources Management,(translated by Khalid Al Ameri)," Dar Al Farouk Publ. Distrib. Cairo, Egypt, 2006.

[8] B. S. Bell, S.-W. Lee, and S. K. Yeung, "The impact of e-HR on professional competence in HRM: Implications for the development of HR professionals," Hum. Resour. Manag. Publ. Coop. with Sch. Bus. Adm. Univ. Michigan alliance with Soc. Hum. Resour. Manag., vol. 45, no. 3, pp. 295–308, 2006.

[9] A. Chauhan, S. K. Sharma, and T. Tyagi, "Role of HRIS in improving modern HR operations," Rev. Manag., vol. 1, no. 2, pp. 58–70, 2011.

[10] H. Buzkan, "The role of human resource information system (HRIS) in organizations: a review of literature," Acad. J. Interdiscip. Stud., vol. 5, no. 1, p. 133, 2016.

[11] Z. Hussain, J. Wallace, and N. E. Cornelius, "The use and impact of human resource information systems on human resource management professionals," Inf. Manag., vol. 44, no. 1, pp. 74–89, 2007.

[12] G. Dessler, Fundamentals of human resource management. Pearson Higher Ed, 2011.

[13] J. W. Gilley, S. A. Quatro, and P. Dixon, The Praeger Handbook of Human Resource Management. Praeger, 2009.

[14] R. A. Noe, J. R. Hollenbeck, B. Gerhart, and P. M. Wright, "Human resource management," Instructor, vol. 2015, 2015.

[15] R. F. Bruner, M. R. Eaker, R. E. Freeman, R. E. Spekman, E. O. Teisberg, and S. Venkataraman, The portable MBA, vol. 32. John Wiley & Sons, 2003.

[16] M. Armstrong and S. Taylor, Armstrong's handbook of human resource management practice. Kogan Page Publishers, 2020.

[17] C. Brewster, "Comparative HRM: European views and perspectives," Int. J. Hum. Resour. Manag., vol. 18, no. 5, pp. 769–787, 2007.

[18] A. Boateng, "The role of human resource information systems (HRIS) in strategic human resource management (SHRM)," Master Sci. Theses, Account. Swedish Sch. Econ. Bus. Adm. Palovartijantie, 2007.

[19] K. A. Kovach and C. E. Cathcart Jr, "Human resource information systems (HRIS): Providing business with rapid data access, information exchange and strategic advantage," Public Pers. Manage., vol. 28, no. 2, pp. 275–282, 1999.

[20] M. J. Kavanagh, H. G. Gueutal, and S. I. Tannenbaum, "Human Resource Information System: Development and Application. MA.: PWS-KENT." Inc, 1990.

[21] I. S. Babaita, A. J. Rafiu, and S. A. Aremu, "Impact of Information Technology on Human

Resource Management Procurement Functions: A Case of A Nigerian University," Malaysian Manag. J., vol. 22, pp. 139–151, 2020.

[22] B. S. Sidhu, R. Sharda, and S. Singh, "Spatio-temporal assessment of groundwater depletion in Punjab, India," Groundw. Sustain. Dev., vol. 12, 2021, doi: 10.1016/j.gsd.2020.100498.

[23] V. Duggal, S. Sharma, and R. Mehra, "Risk assessment of radon in drinking water in Khetri Copper Belt of Rajasthan, India," Chemosphere, vol. 239, 2020, doi: 10.1016/j.chemosphere.2019.124782.

[24] A. Kumar et al., "Microbial lipolytic enzymes – promising energy-efficient biocatalysts in bioremediation," Energy, vol. 192, 2020, doi: 10.1016/j.energy.2019.116674.

[25] C. K. Jain and U. Vaid, "Assessment of groundwater quality for drinking and irrigation purposes using hydrochemical studies in Nalbari district of Assam, India," Environ. Earth Sci., vol. 77, no. 6, 2018, doi: 10.1007/s12665-018-7422-6.

[26] M. Silva and C. Lima, "The Role of Information Systems in Human Resource Management," Manag. Inf. Syst., pp. 113–126, 2018.

[27] D. Dorel and A. Bradic-Martinovic, "The role of information systems in human resource management," 2011.

[28] L. W. Phillips, "Assessing measurement error in key informant reports: A methodological note on organizational analysis in marketing," J. Mark. Res., vol. 18, no. 4, pp. 395–415, 1981.

[29] V. Y. Haines and G. Lafleur, "Information technology usage and human resource roles and effectiveness," Hum. Resour. Manag. Publ. Coop. with Sch. Bus. Adm. Univ. Michigan alliance with Soc. Hum. Resour. Manag., vol. 47, no. 3, pp. 525–540, 2008.

[30] K. S. Ball, "The use of human resource information systems: a survey," Pers. Rev., 2001.

[31] K. Dery, D. Grant, and S. Wiblen, "Human resource information systems (HRIS): Replacing or enhancing HRM," in Proceedings of the 15th World Congress of the International Industrial Relations Association IIRA, 2009, pp. 24–27.

[32] A. Mishra and I. Akman, "Information technology in human resource management: An empirical assessment," Public Pers. Manage., vol. 39, no. 3, pp. 271–290, 2010, doi: 10.1177/009102601003900306.

[33] I. Troshani, C. Jerram, and S. R. Hill, "Exploring the public sector adoption of HRIS," Ind. Manag. Data Syst., vol. 111, no. 3, pp. 470–488, 2011, doi: 10.1108/02635571111118314.

[34] L. H. Lin, "Electronic human resource management and organizational innovation: The roles of information technology and virtual organizational structure," Int. J. Hum. Resour. Manag., vol. 22, no. 2, pp. 235–257, 2011, doi: 10.1080/09585192.2011.540149.

[35] B. Y. Obeidat, "The relationship between human resource information system (HRIS) functions and human resource management (HRM) functionalities," J. Manag. Res., vol. 4, no. 4, pp. 192–211, 2012.

[36] A. Nagendra and M. Deshpande, "Human Resource Information Systems (HRIS) in HR planning and development in mid to large sized organizations," Procedia-Social Behav. Sci., vol. 133, pp. 61–67, 2014.

[37] U. C. Wickramaratna, "The role of human resource information systems in human resource planning in private sector organisations in Sri Lanka," 2011.

[38] M. C. Benfatto, "Human Resource Information Systems and the performance of the Human Resource Function.," LUISS Guido Carli, 2010.

[39] J. H. Marler and E. Parry, "Human resource management, strategic involvement and e-HRM technology," Int. J. Hum. Resour. Manag., vol. 27, no. 19, pp. 2233–2253, 2016, doi: 10.1080/09585192.2015.1091980.

[40] C. Brewster, W. Mayrhofer, and M. Morley, Human resource management in Europe: Evidence of convergence? Routledge, 2004.

[41] J. Shahreki, "The Use and Effect of Human Resource Information Systems on Human Resource Management Productivity," J. Soft Comput. Decis. Support Syst., vol. 6, no. 5, pp. 1–8, 2019.

[42] U. Sekaran and R. Bougie, Research methods for business: A skill building approach. John Wiley & Sons, 2016.

[43] P. Ravesteyn and R. Batenburg, "Surveying the critical success factors of BPM-systems implementation," Bus. Process Manag. J., 2010.