THE IMPACT OF HUMAN RESOURCE INFORMATION SYSTEM ON HUMAN RESOURCE PLANNING: AN ANALYSIS OF INFORMATION TECHNOLOGY COMPANIES

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Abstract
Human Resource Information system is not a new concept now. It has gained huge popularity among companies around the world. It plays a vital role in Human Resource planning in an organization. Human Resource planning plays a significant role in managing the workforce of any organization. Ineffective Human Resource Planning may lead to insignificant number of employees. Thus, HR planning enables reasonable planning of human resource in an organization. The major aim of this paper is to focus the impact of Human Resource Information system on Human Resource Planning activities. The results of paper suggest that HRIS play a very vital role in effectiveness of HR Planning Functions in an organization.
Index Terms – Human Resource Information Systems (HRIS), Human Resource Planning (HRP), Information Technology companies, Advantages of HRIS, Uses of HRIS

I.   INTRODUCTION

Human Resource Information System deals with all the activities of Human resource that may be performed using information technology. A human Resource Information system is integration of information technology with Human Resource functions (Guo & Al Ariss, 2015)[13]. The major functions of human resource management are recruitment, selection, training, development, succession planning and career planning. Now-a-days these functions are being performed using information technology. HRIS has not made all these functions to be performed efficiently but it also resulted in saving time and efforts. With the help of human resource information system it became very easy to store the data related to recruitment and then retrieve it. Not only is this but all the other HR functions became very easy to be performed. It has major impact on HR planning aspects that are succession planning, Training need analysis and other human resource planning functions (Ulrich, 2013) [19]. There are a number of benefits of using Human resource information systems in an organization. There was a time when all the data in an organization has to be collected on papers and keeping this record was indeed a tough task. With HRIS coming into vogue everything has became quite easy.

Human resource planning activities such as succession planning, training needs analysis, etc. was a challenging job for an organization. It is very necessary for an organization to employ right number of people at right time and right place (Galliers & Leidner, 2014) [11]. This is done by human resource

planning. The most significant need of the hour is to have an automated system for human resource planning activities. It becomes very much time taking and tedious for an organization to perform these functions with efficiency. HRIS helps in backing up the Human resource planning activities and make sure that all the activities are performed according to the needs of the organization (Mostafa, Williams, & Bottomley, 2015) [15].Many organizations have now started adopting these practices. It has been observed that these practices are now performed using some HRIS techniques but there are still many organizations who have not adopted HRIS practices. It shall be noted that for small organizations and companies it is not possible to make use of human resource information systems. The reason is that it is not cost effective for them (Gavidia & Irani, 2016) [12].

Along with a number of advantages of human resource information systems in human resource planning activities in an organization there is a dark side as well (Louw, 2013) [14]. On the very first place HRIS is not cost effective and secondly it becomes very difficult for employees to work with new systems. These are a few reasons out of many reasons why implementation of HRIS is not successful in organizations. In this way the paper would examine the impact of Human Resource information System on Human Resource Planning in an organizational setup.

II.   REVIEW OF LITERATURE

"A human resource information system (HRIS) is software containing a database that allows the entering, storage and manipulation of data regarding employees of a company. It allows for global visualization and access of important employee information (Adeyemo & Sehoole, 2014) [1]." Marcia Moore

(Yao & Fan, 2015) [23] explained the dearth of research in HRIS in their work by quoting that the gigantic information system related literature including its implementation, use and impact clarifies that it is healthy researched area but its implementation with human resource is a deserted. (Ali & Green, 2012) [2] present that "the word „implementing‟ in that context has a meaning, such as making something work, putting something into practice, or having something realized".

Initially personnel systems were developed to stockpile the records and reports allied with personnel administration, but with time call for efficacy increases and thus computer-based HRIS is developed (Wong, Lai, Cheng, & Lun, 2015) [22]. But just computer based HRIS in not sufficient and (Budworth, Latham, & Manroop, 2015) [3]supported this by citing that for long term strategic planning decisions a well designed HRIS aligned with HRD goals is the foremost management tool. (Capaldo & Rippa, 2015) [4]discussed that initially HRIS was caretaker of employees as it stores and administers data of line department but now HRIS is not limited to storing; but includes too many irons in the fire like manpower planning, manpower demand and supply forecasting, job descriptions for both jobs and applicants, recruitment and selection, training and development, negotiations, grievance management etc (Wang, Liu, & Cheng, 2008) [21] and also provides information essential to assist the functional manager in decision making that will be an add on in the realization of the unit‟s strategic goals and objectives (Chovancová, 2013) [5]. This increasing information processing efficiency of HRIS makes it useful for any size organization (Coetzee, Schreuder, & Tladinyane, 2014) [6] .But still there is a perception that HRIS are not „adding value‟ and the restricted way in which they are utilized is criticized (Davenport, 2013) [7]. The usage of HRIS depends on some factors as illustrated by (Vlasova, 2013)[20]that HRIS system usage is determined by human resources strategy, reciting a corresponding process between different strategies and different system practice (El Badawy &

Hannalla, 2014) [8]avowed that the main obstruction in the implementation of a HRIS is the sky-scraping cost of setting up and maintaining a HRIS in line with (Festing, Budhwar, Cascio, & Dowling, 2013) [9]who affirmed that a lack of funds and support of top management are the stumbling blocks in achieving the full potential of HRIS. Due to this obstacle in order to endorse the embracing of HRIS operations, primary it is necessary to make certain that bankers or organizations are agreeable to give their support for setting up a HRIS Lately, the increasing pressure to support strategic objectives and the greater focus on shareholder value have led to changes in both job content and expectations of HR professionals. Similarly, (Rai & Tang, 2013) [18]and (Norris, 2008)[17] noted that one such major changes included contemporary use of IS in support of the HRM process. More so, a careful analysis indicated that increased HRIS usage enabled improved professional performance and thus facilitated involvement in internal consultancy activities. In addition, according to (Nguyen, Newby, & Macaulay, 2015) [16] using HRIS provides value to the organization and improves HR professionals' own standing in the organization. In another development, (Fratricova, 2010) [10] suggested the need for HR to become a strategic partner.

III.   RATIONALE OF THE STUDY

For any organization Human Resource is considered as an asset. In IT organizations human resource are considered as knowledge warehouse and this is the reason why human resource planning plays a vital role in IT organizations. To utilize the knowledge, skills and abilities of employees in an effective manner it is very important for an organization to manage them properly. It is possible with the help of human resource planning. But it would become more effective when HRIS would help in HR planning in an organization. Hence, this research would focus on contribution of HRIS in HR planning in an organization. There have been a number of studies in the field of human resource information systems but there is a lack of studies on Human resource planning in IT organizations.

IV.   RESEARCH OBJECTIVES

a. To ascertain the advantages that an IT organization gains by using Human Resource Information systems while doing HR Planning.
b. To investigate the role of HRIS in strategic decision making in IT companies.
c. To determine the contribution and impact of HRIS in HRP in IT companies.

V.   RESEARCH METHODOLOGY
a. Data Collection

For the purpose of this research data has been collected from 127 respondents from the IT companies of Indore.
The research design is exploratory in nature. The method used for collection of data is primary data collection method but secondary data has also been used. A questionnaire has been developed to collect the data from employees of IT industry.

b. Data Analysis and Findings

The collected data has been analyzed using SPSS software. Factor analysis has been used to find out the factors of the research

1) Advantages of HRIS in HR planning in IT companies

Table 1:Descriptive statistics of Advantages of HRIS in HR planning in IT companies

	N	Minimum	Maximum	Mean	Std. deviation
better_supervision_and_control_manpower	127	1	5	2.43	1.165
reduce_labour_cost	127	1	5	1.82	1.269
security_data	127	1	5	2.40	.953
anytime_access	127	1	5	1.72	1.168
HR_decisions	127	1	5	3.02	.766
manage_ample_data	127	1	5	2.40	.978
statutory_compliance	127	1	5	2.62	1.147
Valid N (listwise)	127	1	5		

Interpretation:

The above analysis states that the most important advantage of Human resource Information system in human resource planning is HR decisions. HR decisions have the highest means of all the factors compared. After that statutory compliance is another advantage that that has the high weighing.

2) Analysis of the role of HRIS in strategic activities of HR managers in IT companies

To analyze the role of Human Resource Information Systems in strategic activities of HR managers in IT company's factor analysis is undertaken.

Interpretation:

Table 2: Factors extracted out of the analysis

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Questions (variables)	Loadings	Factor name
Variable 19 - HRIS helps in succession planning with the help of training and development.	0.708	Ease in Succession planning
Variable 17 - With training and development HRIS helps in filling up skill gaps.	0.820	Training and development filling skill gaps
Variable 23 - HRIS helps in forecasting needs of Human resource within the organization.	0.883	Forecasting HR needs
Variable 29- HRIS makes relevant information available for decision – making.	0.878	Information for decision making
Variable 16- HRIS helps in selecting right person at right time for the purpose of training.	0.797	Ease in training
Variable 02- HRIS helps in identifying unfilled positions in a correct manner	0.788	Identification of unfilled position
Variable 04- HRIS backs-up recruitment plan.	0.718	Recruitment plan
Variable 26- HRIS identifies human resources need to achieve organizational goals.	0.886	Identification of HR needs
Variable 06- HRIS helps in tracking applications effectively.	0.757	Ease in tracking applications
Variable 10- Evaluation of recruiting process is done effectively by HRIS.	0.793	Effective evaluation of recruiting process

The most significant factor that has come out of the study is that HRIS helps in identification of HR needs. It implies that HRIS helps in identifying the needs of human resource management in the organizations. This

further suggests that the IT industry in Indore region is using HRIS so that they can identify the needs of human resource management. The second most important factor is forecasting the needs of human resource management there are various needs of human resource management and these needs are forecasted by HRIS in the IT industry in Indore region. HRIS thus helps in knowing various needs in advance. The another factor that has been found out after study is that it helps in finding skills gaps in the organization with the use of training and development. Most of the IT companies are in the opinion that with the help of HRIS they can easily find out the skill gaps in their organization. It implies that the training and development of HRIS is very strong and beneficial for their organizations and because of that they can now easily fill the skills gaps existing in the organization. With another associated factor that has been identified after the study is that with the help of HRIS training has become very easy in their organization. So the factor that has been identified here is, ease in training. It implies that HRIS has made training in the organizations easy and simple. The next factor that has come out of the study is that HRIS made evaluation of recruiting very effective. For every organization it is very necessary to know the impact of recruitment process and to know whether it is effective or not. So, IT industry in Indore region is able to know this with the help of HRIS.

VI. CONCLUSION

The results show that the most significant factor that has come out of the study is that HRIS helps in identification of HR needs. It implies that HRIS helps in identifying the needs of human resource management in the organizations. This further suggests that the IT industry in Indore region is using HRIS so that they can identify the needs of human resource management. Most of the IT organizations in Indore region observed that HRIS contributes to efficiency of HR planning through HRIS training needs analysis, HRIS skills inventory, HRIS succession planning, HRIS labor demand and supply analysis and decision making. It is also analyzed that the most important advantage of Human resource Information system in human resource planning is HR decisions. HR decisions have the highest means of all the factors compared. After that statutory compliance is another advantage that that has the high weighing. It is also supported by (Fratricova, 2010) [10] that HR decisions play a vital role in the IT organizations and due to that it is important to take it into consideration.

VII. LIMITATIONS OF THE STUDY

Since the present study is survey based study, it has limited implication on the literature. The most significant limitation of the study is that the sample size is very small due to the lack of time and resources. Due to that the research cannot be generalized. The use of convenience sampling also makes the study limited in its nature and application.

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Appendix :

Following is the questionnaire that has been used by the researcher for the purpose of data collection.

(A.) HRIS Role in Recruitment and Selection

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Use of HRIS recruitment sub-systems is optimum in the organization					
HRIS helps in identifying unfilled positions in a correct manner					
Each job position and job title is analyzed by HRIS accurately.					
HRIS backs-up recruitment plan.					
HRIS helps in maintain skill inventory.					
HRIS helps in tracking applications effectively.					
Candidates in the organization are recruited through HRIS e-recruiting.					
HRIS helps in reducing recruiting costs.					
HRIS eliminates unsuitable applicants early and focuses on promising candidates.					
Evaluation of recruiting process is done effectively by HRIS.					

B.) HRIS Role in Training and Development

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Use of HRIS training and development sub-systems is optimum in the organization					
HRIS helps in determining the training needs in the organization.					
HRIS provides accurate outcomes of Training needs analysis (TNA).					
HRIS training plan is efficient with respect to the needs of the managers.					
HRIS helps in evaluating the effectiveness of training programs.					
HRIS helps in selecting right person at right time for the purpose of training.					
With training and development HRIS helps in filling up skill gaps.					
HRIS makes training and development process cost effective.					
HRIS helps in succession planning with the help of training and development.					

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(C.) Common HRIS role in Recruiting and Training and Development

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
HRIS maintains confidentiality within the organization.					
HRIS provides an opportunity to become a strategic partner with top management.					
HRIS helps in managing demand and supply of Human resource in the organization.					
HRIS helps in forecasting needs of Human resource within the organization.					
HRIS ensures organization has right kind and numbers of employees at right place at right time.					
HRIS identifies human resources need to achieve organizational goals.					
HR strategy of the organization and HRIS align together .					
HRIS has helped me in improving the quality of decision making.					
HRIS makes relevant information available for decision –making.					
HRIS has increased the speed of analyzing decisions.					
HR Planning of organization is effective.					