

A Comparative Study of the Software Packages Used as HRIS by Organizations Operating in India: Human Resource Professionals' Perspective.

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Abstract

The aim of the study was to do a comparative study to find the various software packages of human resource information system (HRIS) used by organizations operating in India. In this era of information explosion, in a developing country like India, human resources should be managed well and to do so, an integration of technology with the day today activities of employees should be the prime focus of organizations, operating in any domain. In the human resource management domain the technological solution is the implementation and use of human resource information system, which has in the last couple of decades become one of the most important pillar of modern human resource management. Thus for this study, a total of 71 companies across India were shortlisted across six different sectors namely information technology, real estate, business process outsourcing, financial services, manpower consulting and travel & tourism. The sample size of 385 respondents was decided, but only 355 questionnaires were found to be usable and were thus analyzed, which is a response rate of 96.25%. Chi-square results showed that organizations in the real estate sector and the service sector of India, differed significantly on the software packages being used as human resource information system (HRIS) by organizations operating in India. This study also provided concrete insight about human resource professionals, perspective about the various features of human resource information system (HRIS) that the organization is currently using.

Research Type: Research Paper

Keywords: Human Resource Information System, Human resource Management, HRIS Software, Features of Human Resource Information System, India.

1. Introduction

In this era of economic growth of the Asian and African economies, human resource has become one of the main driving force behind the economic success of the third world countries like India. Thus, it has become even more important today that human resources should be managed well and to do so, an integration of technology with the day today activities of employees should be the prime focus of organizations, operating in any domain in a developing country like India. In the human resource management domain the technological solution is the implementation and use of human resource information system, which has in the last couple of decades become one of the most important pillar of modern human resource management.

Human resource management (HRM) issues have been a major concern for managers at all levels, because they all meet their goals through the efforts of others, which require the effective and efficient management of people (Dessler, Cole and Sutherland, 2008). 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 (Ball,2000). Similarly, Schuler & Jackson, Storey, (2001) and Mayfield, Mayfile, Lunce (2003) noted that one such major changes included contemporary use of Information Systems (IS) in support of the HRM process. In addition, according to Ulrich (1997), using HRIS provides value to the organization and improves HR professionals' own standing in the organization.

The traditional ways of competitive advantage have to be supplemented with organizational capability i.e. the firm's ability to manage people (Ulrich and Lake 1990). Human Resource Information System is therefore a medium that helps human resource professionals perform their job roles more effectively. (Broderick and Boudreau, 1992). Martinsons (1994) pointed out that HRIS is normally used for two different purposes. One for simple automation like payroll and benefits administration, and keeping the employee records electronically for administrative purpose to reduce costs and time. The other use of HRIS is for analytical decision making (Kovach & Cathcart, 1999).

This research paper thus, compares the various software packages of human resource information system (HRIS) used by the organizations operating in India. And further, it draws attention to the human resource professionals'

perspective on the various features of HRIS, being used in their respective organizations.

The paper then provides information on the research setting, the sample and the measures used in the study. Finally, the researchers detail the empirical results and discuss the significance of the findings.

2. Review of Literature

India due to its continuous economic growth stands at the threshold of becoming a member of league of developed countries. And one of the major contributor towards this achievement is the undaunted endeavor of the human resources. Thus, it has become even more important today that human resources should be managed well and to do so, an integration of technology with the day today activities of employees should be the prime focus of organizations, operating in any domain in a developing country like India. In the human resource management domain the technological solution is the implementation and use of human resource information system, which has in the last couple of decades become one of the most important pillar of modern human resource management. This saves time and curbs costs involved in maintaining cumbersome human resource processes. Employees, managers, and HR can log into Human Resource Information System and handle their Human Resource processes fast then log out to concentrate on their real jobs – growing the business.

In a recent study on Indian companies found that HR professional had major applications of HRIS as recruitment and selection (67.2% and 71.9%, respectively), pay roll service (67.2%), providing general information (67.2%), compensation (67.2%), performance appraisal (62.5%) and job analysis and design (62.5%), HRIS was quite in use in corporate communication (48.2%), (Saharan and Jafri, 2012).

De Alwis (2010) in his study on Sri Lankan industry shows that the most commonly used modules in HR department are training and development, recruitment and selection and performance appraisal and are being utilized by all the companies. The most popular future applications of HRIS had been predicted as training and development (72.5%), career development (60.8%) and performance appraisal/management (58.8%) (Teo, Soon and Fedric, 2001).

Technology has affected human resource management in a number of ways (Kossek, 1987). With many functions to track and huge amounts of information to process frequently and accurately, human resource executives have turned to information technology (IT) to help them meet their organization's information needs. Human Resources (HR) and information technology are the two elements that many firms are learning to use as strategic weapons to compete (Jenkins and Lloyd, 1985).

Kavanagh et al. (1990) defined HRIS as a system used to acquire, store, manipulate, analyze, retrieve, and distribute information regarding an organization's human resources. An Human Resource Information System is not simply computer hardware and associated HR-related software. Although an Human Resource Information System includes hardware and software, it also includes people, forms, policies and procedures, and data. (sagepub.com). It is important to note that a company that does not have a computerized system still has an Human Resource Management system; that is, the paper systems that most companies used before the development of computer technology were still comparable with an Human Resource Information System, but the management of employee information was not done as quickly as in a computerized system. If a company did not have a paper system, the development and implementation of a computerized system would be extremely difficult. Personnel Information Systems have evolved from the automated employee recordkeeping from the 1960s into more complex reporting and decision systems of late (Gerardine DeSanctis, 1986: 15).

The field of human resource management (HRM) can be characterized as having encountered frequent and numerous innovations in technology. Some of the terms include the human resource information system (HRIS), electronic human resource management (e-HRM) and virtual human resource management (VHRM) (Ngai, Law and Wat, 2008). A human resource information system (HRIS) is a system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information about an organization's human resources (Tannenbaum, 1990). After reviewing the many definitions of an Human Resource Information System, Kavanagh, Gueutal and Tannenbaum (1990) defined it as a system used to acquire, store, manipulate, analyze, retrieve, and distribute information regarding an organization's human resources.

In the 1960's and 1970's, large companies felt a need to centralize their personnel data in large part to facilitate record keeping and meet regulatory needs. Programs were written on large mainframe computers that acted as a central data repository with little transactional processing, usually only for payroll. Recent developments in technology have made it possible to create a real-time information-based, self-service, and interactive work environment. Personnel Information Systems have evolved from the automated employee recordkeeping from the 1960s into more complex reporting and decision systems of late. (Gerardine DeSanctis, 1986).

Personnel Information Systems have evolved from the automated employee recordkeeping from the 1960s into more complex reporting and decision systems of late (Gerardine DeSanctis, 1986). The Human Resource Information System (HRIS), also known as a Human Resource Management System (HRMS), became prevalent in the 1980's with the popularity of Enterprise Resource Management (ERP) applications and the move from

mainframe systems to client server technology.

Today, managers and employees are assuming activities once considered the domain of human resource professionals and administrative personnel. This represents a significant break with the past, but an improvement in overall organizational effectiveness. Consequently, given the authority and relevant accessible information for decision making, both managers and employees respond more quickly to changes (Lengnick-Hall and Lengnick-Hall, 2002).

There are multiple typologies for the classification of computer-based systems. One of the earliest books in the field of computer-based systems (Sprague & Carlson, 1982) placed systems under three basic categories: Electronic Data Processing (EDP), Management Information Systems (MIS), and Decision Support Systems (DSS). Kovach & cathcart, (1999) presented the three major functional components in any Human Resource Information System: Input, Data Maintenance, Output.

Human Resource Information System meets the needs of a number of organizational stakeholders. Typically, the people in the firm who interact with the HRIS are segmented into three groups:

- (1) HR professionals.
- (2) Managers in functional areas (production, marketing, engineering etc.) and
- (3) Employees (Anderson, 1997)

Within the last decade, the explosion in information systems related literature confirms that information technology, its implementation, use and benefit is a very well researched area in organizational studies (Robinson, 1997). There appears to be shift towards strategic applications of HRIS. The possible reason could be that most of the organizations which are using HRIS for few years for now, want to explore possibilities of strategic HRIS applications over the next few years. (Teo, Soon and Fedric, 2001).

3. Objective of the Study

In an attempt to isolate and categorize potential sources of the software packages used as human resource information system and to figure out the features of human resource information system, the available literature is reviewed.

On the basis of the literature review, the main objective of the study is to find the various software packages used as human resource information system (HRIS) by organizations operating in India and also to study the perspective of human resource professionals of the various features of human resource information system (HRIS), being used in their respective organizations.

To achieve the main objective, the following sub objectives were set:

1. To find the software packages of HRIS being used by organizations operating in India.
2. To study the perspective of human resource professionals regarding the different features of HRIS.

4. Research Methodology

4.1 Methodology

The study is based on primary data collected from human resource professionals currently working in 71 different organization operating in India. The researchers also used secondary data for the purpose of this study. The organization in the study are from information and technology, real estate, business process outsourcing, financial services, manpower consulting and travel and tourism. A descriptive research design with a survey method is applied in this study. The study was proposed on a sample size of 385 respondents. 400 questionnaires were randomly administered to employees. Approximately 355 usable questionnaires were received representing a response rate of 96.25%.

Secondary data used in this research is taken from different books on the related topics, web portals, public websites of concerned departments for data and other statistics, various journals, newspapers and magazines, websites of selected companies included in this survey as well as of the different printed materials (brochures, etc) collected from these companies. Enough information was attainable from these sources thus allowing for appropriate analysis, compilation, interpretation, and structuring of the entire report.

4.2 Survey instrument:

A comprehensive questionnaire, on the topic of the study, was developed for data collection, from the human resource professionals working in various organizations in India. The questionnaire was originally developed into English and translated into Hindi for a high response rate.

4.3 Statistical tools:

The data collected in the form of questionnaires, from the respondents, was analyzed by SPSS software.

5. Hypothesis

Thus, on the basis of literature review, we propose the following ten hypotheses (H):

- H1 Maximum organizations in India use ERP as HRIS.
- H2 HRIS used by the organizations is user friendly.
- H3 HRIS used by the organizations is reliable.
- H4 HRIS used by the organizations is efficient.
- H5 HRIS used by the organizations is secure.
- H6 HRIS used by the organizations is maintainable.
- H7 HRIS used by the organizations has clarity while operating
- H8 HRIS used by the organizations is consistent.
- H9 HRIS used by the organizations is stable.
- H10 HRIS used by the organizations is accurate.

6. Conceptual Framework of the Study

The researchers finalized the study by undertaking the following framework of the study. The study analyses and presents the software packages of human resource information system implemented by various organizations across India. The study also shows the perspective of human resource professionals regarding the features of human resource information system being used by their respective organizations. The study shows that the various software packages of human resource information system being used by organizations in India, play a very important role in framing the perspective of human resource professionals towards using HRIS.

7. Conceptual Framework of the Study

7.1 Hypothesis testing:

The researcher proposed ten hypothesis to be tested in the study to arrive at the meaningful conclusion. The information was collected from professionals working in seventy one (71) organizations across six different sectors. The researcher proposed two objectives to be tested in the study to arrive at the meaningful conclusion. The proposed objectives were expected to provide a clear picture of the software packages of human resource information system (HRIS) used by organizations operating in India. The results were also expected to show the perception of human resource professionals regarding the features of human resource information system being used in their respective organizations.

Hypothesis 1: Maximum organizations in India use ERP software package as HRIS.

83.8% respondents interviewed in the IT sector and 89.3% respondents interviewed in the BPO sector replied that they use ERP(Enterprise resource planning) while in rest of the sectors more than 50% of the respondents replied that they use Spread sheet as HRIS. It should be noted here that only 10.5% of the respondent from the IT sector and 2.7% respondents from the BPO sector said that they use Spread sheet as HRIS. Chi square was done to check the relation between the most preferred Human resource information system and it was found that ERP is the best HRIS that should be used in the organizations.(Chi square:196.28, P value:0, Significant at 0.05), thus the hypothesis is accepted.

Insert Table 1

Hypothesis 2: HRIS used by the organizations is user friendly.

54% of the respondents interviewed replied that the HRIS they are using is user friendly and 25.8% of the respondents replied that they disagreed with the statement. It should be noted here that in the IT Sector(64.8%) and BPO Sector(58.7%) of the respondents replied that they HRIS they were using is user friendly. The reason for such a high rate of response for the user friendliness of the HRIS is because the sectors focus of technology is quite high as compared to the other sectors. Chi square was done to find out its significance and it was found out to be so (Chi square: 62.95%, P value:0, Significant at 0.05%) i.e the HRIS used by the organizations in India is user friendly, thus the hypothesis is accepted.

Insert Table 2

Hypothesis 3: HRIS used by the organizations is reliable.

50.5% of the IT respondents interviewed and 61.5% of the BPO respondents interviewed replied that the reliability of the HRIS they were using is Excellent while in all the other sectors not even 12% respondents replied that the reliability of the HRIS is Excellent, only in Real Estate(11.1%) of the respondents interviewed replied it to be excellent while Real Estate(6.7%),Financial Services(8.0%), Manpower Consultancy(10%) and Travel & Tourism(5%) the respondents did not cross the 10% mark. Almost in all the sectors barring IT and BPO, more than 50% of the respondents interviewed replied the reliability factor to be satisfactory. Chi square test justified the findings.(Chi square:176.79, P value:0, significant at 0.05 level), thus the hypothesis is accepted.

Insert Table 3

Hypothesis 4: HRIS used by the organizations is efficient.

Again, it is seen that in IT Sector(55.2%) respondents and BPO Sector(66.7%) respondents replied and believed that the HRIS is efficient and responded with the option excellent, while in all the other sectors the respondents

Real Estate (66.7%) ,Financial services(80%),Manpower Consultancy(75%) and Travel & Tourism(87.5%) the reply was “Satisfactory”. It should be noted there that Chi square test justified the findings that the HRIS used in the organizations is efficient and further we found out that it is very important that the HRIS should be efficient as in the case of IT and BPO sector.(Chi square:177.96, P value:0, significant at 0.05 level), thus the hypothesis is accepted.

Insert Table 4

Hypothesis 5: HRIS used by the organizations is secure.

59 % of the IT respondents and 82.7% of the BPO respondents replied that the security features are excellent. The reason for this is that we observed in table 1 that in both of these sectors HRIS is a part of ERP and not a simple software application like Spread sheet or a freeware software which is not capable of provided excellent security features. Chi square test was done and it justified the findings and we found out that it is very important that the HRIS should have excellent security features as in the case of IT and BPO sector.(Chi square:182.21, P value:0, significant at 0.05 level). 61% of the respondents are satisfied with the security features of HRIS, thus the hypothesis is accepted.

Insert Table 5

Hypothesis 6: HRIS used by the organizations is maintainable.

Only in BPO Sector where 45.3% of the respondents replied that it is excellent and in the IT sector where the respondents who were interviewed replied that the maintainability of the HRIS is good, in all the other sectors more than 50% of the respondents replied that it is satisfactory only. It should be noted that in IT sector and BPO sector as had been found in table 2.6, majority of the companies use ERP, where HRIS is an inbuilt feature of it. In the Manpower consultancy (20%) maintainability was found to be worst in 20% of the replies we got from the respondents. Chi square test was done to find out if it was true and it justified the findings and we found out that it is very important that the HRIS should have excellent maintainability features as in the case of IT and BPO sector.(Chi square:141.01, P value:0, significant at 0.05 level). The hypothesis is accepted.

Insert Table 6

Hypothesis 7: H7 HRIS used by the organizations has clarity.

28.1% of the respondents interviewed replied that it is excellent. But it should be noted that the maximum contribution to this is done by the IT Sector(30.5%) and BPO sector(61.3) otherwise in Real estate the respondents replied in 94.4% responses that is it just “Satisfactory” and 15% of the respondents in Manpower Consultancy responded that clarity is worst. It should be noted again here that in IT sector and BPO sector as had been found in table 2.6, majority of the companies use ERP, where HRIS is an inbuilt feature of it. Chi square test was done and it justified the findings and we found out that it is very important that the HRIS should have excellent clarity as in the case of IT and BPO sector.(Chi square:153.49, P value:0, significant at 0.05 level). The hypothesis is accepted.

Insert Table 7

Hypothesis 8: HRIS used by the organizations is consistent.

In 41.9% responses from the interviewed respondents the reply was that the consistency is just “Satisfactory” but the interviewed respondents of the BPO sector replied in 48% replies that is “Excellent” and 20% of the respondents from the IT Sector also replied the same. In the Real Estate sector almost 88% respondents replied with “Satisfactory” while in the IT sector 57.1% respondents stated that the consistency was “Good”. 32% from the Financial sector also replied that it is good. Chi square test was done and it justified the findings and we found out that it is very important that the HRIS should have excellent clarity as in the case of IT and BPO sector.(Chi square:140.49, P value:0, significant at 0.05 level). Thus the hypothesis is accepted.

Insert Table 8

Hypothesis 9: H9 HRIS used by the organizations is stable.

Again we see as almost similar pattern of responses from the respondents being interviewed in table 1. Respondents from the BPO sector(58.7%) replied that it was excellent and 28.6% respondents from the IT sector replied the same. Also 43.8% respondents from the IT sector replied that it “Good” and from the real estate sector almost 40% replied it to be “Good”. But Financial Sector(72%) , Manpower Consultancy(55%) and Travel & Tourism(80%) replied it to be just “Satisfactory”. It should be noted here that Real Estate sector and IT sector are the only sectors where the respondents interviewed replied with more than 40% responses in favor of “Good”. Chi square test was done to find out if it was true and it justified the findings (Chi square:124.63, P value:0, significant at 0.05 level). Hence, the hypothesis is accepted.

Insert Table 9

Hypothesis 10: HRIS used by the organizations is accurate.

45.8% of the respondents interviewed responded that the accuracy of the HRIS is Excellent, out of which 68.6% and 80% respondents were from the IT and BPO Sector respectively. It should be noted that 66.7% of the respondents from the Real estate sector and 55% respondents from the Travel and Tourism sector replied that it

was “Good”. It is surprising to note that 68% of the respondents from the Financial sector replied that it was just “Satisfactory”. Chi square test was done to find out if it was true and it justified the findings and we found that indeed is one of the most important factor. (Chi square:178.19, P value:0, significant at 0.05 level). Hence, the hypothesis is accepted.

Insert Table 10

7.2 Findings:

The researchers proposed ten hypotheses to be tested in the study to arrive at the meaningful conclusion. From the results and analysis the researchers present the following highlights of the findings.

Summary of hypothesis and brief findings.

(1)	(2)	(3)	(4)
H1	Yes	Maximum organizations in India use ERP as HRIS	Accepted
H2	Yes	HRIS used by the organizations is user friendly.	Accepted
H3	Yes	HRIS used by the organizations is reliable	Accepted
H4	Yes	HRIS used by the organizations is efficient	Accepted
H5	Yes	HRIS used by the organizations is secure	Accepted
H6	Yes	HRIS used by the organizations is maintainable	Accepted
H7	Yes	HRIS used by the organizations has clarity while operating	Accepted
H8	Yes	HRIS used by the organizations is consistent	Accepted
H9	Yes	HRIS used by the organizations is stable	Accepted
H10	Yes	HRIS used by the organizations is accurate	Accepted

NOTES: Column headings are as follows: (1) hypothesis, (2) Correlation (3) results, (4) hypothesis rejected/accepted.

8. Discussion

In the current study the researchers proposed ten hypotheses to test, through which two objectives would be achieved. In this section the results of the study and objectives are discussed. The first objective of the study was to find the software packages of HRIS being used by organizations operating in India. Table 1 depicts the software packages used for HRIS in organizations operating in India. It gives the frequency analysis and per value of each sector (IT, Real Estate, BPO, Manpower Consultancy, Financial Services and Travel & Tourism) with respect to the tool used by the human resource professionals interviewed in this survey.

The analysis shows that:-

- Majorly IT and BPO companies use ERP as HRIS, while in all the other sectors HRIS being used majorly is SPREAD SHEET.
- Further analysis From Table 3, Table 4, Table 5, Table 6, Table 7, Table 8, Table 9, we conclude that the organizations using Spread sheet can also be the reason as to why the human resource professionals majorly from all the sectors, except IT and BPO, believe that HRIS is not being used to the fullest capabilities.
- Table 2 shows that the Human Resource Professional from the Manpower organizations and Travel & Tourism majorly believe that the HRIS being used is not user friendly , one of the reason is that the organizations use Spread sheet.

The second objective of the study was to find out the perspective of human resource professionals regarding the different features of HRIS.

About User Friendliness: The analysis of Table 2, shows that majorly all the HRIS used in all the organizations is user friendly except for Manpower Consultancy and Travel & Tourism where the majority of the respondents believed that it is not user friendly and disagreed with the statement of user friendliness. It should be noted that in Table 1, we analysed that the tool used by Manpower Consulting and Travel & Tourism sector is not ERP but Spread sheet and ERP is majorly been used by the IT and BPO sector only. While in the IT,BPO and Real estate sector more than half of the respondents believed their HRIS to be user friendly, less than half of the respondents from the Financial sector believed so.

About Reliability: Further analysis of Table 3, shows that majority of the organizations in the different sectors think that the Reliability of the HRIS is only “Satisfactory”, while at the same time organizations from IT and BPO Sector show that majority of the respondents think that the reliability of their HRIS is “Excellent”. The highest percentage of respondents from Travel & Tourism said that they think that the HRIS is only satisfactory. And also almost a quarter from the Manpower Consulting believe that the reliability of HRIS in use is “Worst”. One should not forget here that all the organizations where the level of satisfaction in terms of reliability of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet.

About Efficiency: Analysis of Table 4, shows that majority of the respondents from IT and BPO sector state that the efficiency of the HRIS in use is “Excellent” while the human resource respondents from all the other sectors

believe that it “Satisfactory” or “Worst”. Highest number of respondents from the Travel & Tourism sector believe that the efficiency of HRIS in use is just “Satisfactory”. One should not forget here that all the organizations where the level of satisfaction in terms of efficiency of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet.

About Security: Analysis of Table 5, depicts that majority of the respondents from IT and BPO sector state that the security of the HRIS in use is “Excellent” while the human resource respondents from all the other sectors believe that it “Satisfactory” or “Worst”. Highest number of respondents from the Real Estate sector believe that the security of HRIS in use is just “Satisfactory”. One should not forget here that all the organizations where the level of satisfaction in terms of security of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet.

About Maintainability: Analysis of Table 6, shows that majority of the respondents from IT and BPO sector state that the maintainability of the HRIS in use is “Excellent” or “Good” while the human resource respondents from all the other sectors believe that it “Satisfactory” or “Worst”. Highest number of respondents from the Financial sector believe that the maintainability of HRIS in use is just “Satisfactory”. One should not forget here that all the organizations where the level of satisfaction in terms of consistency of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet. And also almost a quarter from the manpower consulting believe that the maintainability of HRIS in use is “Worst”.

About Clarity: Analysis of Table 7, shows that majority of the respondents from IT and BPO sector state that the clarity of the HRIS in use is “Excellent” or “Good” while the human resource respondents from all the other sectors believe that it “Satisfactory” or “Worst”. Highest number of respondents from the Real Estate sector believe that the clarity of HRIS in use is just “Satisfactory”. One should not forget here that all the organizations where the level of satisfaction in terms of consistency of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet. And also almost a quarter from the Real Estate believe that the clarity of HRIS in use is “Worst”.

About Consistency: Analysis of Table 8, shows that majority of the respondents from IT and BPO sector state that the consistency of the HRIS in use is “Excellent” or “Good” while the human resource respondents from all the other sectors believe that it “Satisfactory” or “Worst”. Highest number of respondents from the Real Estate sector believe that the Consistency of HRIS in use is just “Satisfactory”. One should not forget here that all the organizations where the level of satisfaction in terms of consistency of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet. And also almost a quarter from the Real Estate believe that the consistency of HRIS in use is “Worst”.

About Stability: Analysis of Table 9, shows that majority of the respondents from IT and BPO sector state that the stability of the HRIS in use is “Excellent” or “Good” while the human resource respondents from all the other sectors believe that it “Satisfactory” or “Worst”. Highest number of respondents from the Travel & Tourism sector believe that the stability of HRIS in use is just “Satisfactory”. One should not forget here that all the organizations where the level of satisfaction in terms of stability of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet. And also almost a quarter from the manpower consultancy believe that the consistency of HRIS in use is “Worst”.

About Accuracy: Analysis of Table 10, shows that majority of the respondents from IT, BPO, Travel & Tourism and Real Estate sector state that the accuracy of the HRIS in use is “Excellent” or “Good” while the human resource respondents from all the other sectors believe that it “Satisfactory” or “Worst”. Highest number of respondents from the Financial sector believe that the stability of HRIS in use is just “Satisfactory”. One should not forget here that all the organizations where the level of satisfaction in terms of stability of the HRIS is “satisfactory” are organizations where the tool for HRIS in use is Spread sheet.

9. Conclusion and Practical Implications

The conclusion has been drawn based on the data analysis of 355 respondents (as presented in the research methodology). From the foregoing study and analysis the researchers unveiled the software packages of human resource information system (HRIS) used by organizations operating in India. The researchers found that spread sheets are being majorly used by organization in all the sectors except the IT and BPO sector and this could also be the reason as to why in all the other sectors HRIS is not being used majorly for all the activities relating to HRIS.

The researchers also found that the human resource professional from the manpower organizations and Travel & Tourism majorly believe that the HRIS being used is not user friendly and almost all the respondents from all the other sectors except IT and BPO believe that the HRIS being used is not also reliable, efficient, has not good security features, has maintenance problem, is not consistent, stability is an issue and also is not accurate, one of the reason is that the organizations use spread sheets. Thus, for making sure that the HRIS being implemented impacts human resource management and the organization is able to get the most out of the integration between

the two the human resource information system should be user friendly and less complicated to use. The human resource professional should be able to work on the human resource information system with very less requirement of data entry which would in turn mean fewer errors or delays.

The finding present that the human resource professional from the manpower organizations and Travel & Tourism majorly believe that the HRIS being used is not user friendly, one of the reason is that the organizations use spread sheets.

It is worth mentioning here that the study found that, majority of the respondents from IT and BPO sector state that the security of the HRIS in use is "Excellent" while the human resource respondents from all the other sectors believe that it "Satisfactory" or "Worst". Highest number of respondents from the Real Estate sector believe that the security of HRIS in use is just "Satisfactory". One should not forget here that all the organizations where the level of satisfaction in terms of security of the HRIS is "satisfactory" are organizations where the software package used as HRIS is a spreadsheet. And also, the results showed that still many organizations operating in India do not have an ERP in use.

The researchers confidently conclude that this study has practical and policy implications for the organizations in the information technology (IT), real estate, business process outsourcing, financial services and travel & tourism sectors, respectively.

9.1 Practical Implications

For Companies: The companies in all the seven sectors under study in this research should shift from a spread sheet based HRIS platform to a ERP based platform, so as to significantly facilitate in improving the practices of human resource management.

For the Government: Government should encourage educational institutions to develop industry oriented technical courses with a focus on developing a course on latest software packages being used as human resource information system.

10. Limitations and Future Research Directions

The primary limitation of the study was that the organizations and their human resource professionals were stringent on the grounds of maintaining the confidentiality of the details. Another significant limitation has been to openly speak to the Employees as the management would always be around while interviewing the Employees. The study was conducted in the service sector and real estate sector only, which could have been collected from other sectors also. Further the survey is subjected to the bias and prejudices of the respondents. Hence 100% accuracy can't be assured. And also, future researchers can take up studies on human resource information system (HRIS) by including the above mentioned limitations.

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Annexure:

Table(s)

Table-I. Type of software package used as HRIS

	Sector														Chi-square	p
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Spread sheet	11.0	10.5	35.0	77.8	2.0	2.7	16.0	64.0	12.0	60.0	29.0	72.5	105.0	33.9	196.28	0
Free software	2.0	1.9	2.0	4.4	3.0	4.0	3.0	12.0	3.0	15.0	4.0	10.0	17.0	5.5		
ERP	88.0	83.8	5.0	11.1	67.0	89.3	2.0	8.0	2.0	10.0	2.0	5.0	166.0	53.5		
I don't Know	4.0	3.8	3.0	6.7	3.0	4.0	4.0	16.0	3.0	15.0	5.0	12.5	22.0	7.1		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-2. About User Friendliness of HRIS

	Sector														Chi-square	P
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Agree	68.0	64.8	26.0	57.8	44.0	58.7	11.0	44.0	7.0	35.0	13.0	32.5	169.0	54.5	62.95	0
Strongly Agree	5.0	4.8	3.0	6.7	22.0	29.3	2.0	8.0	3.0	15.0	2.0	5.0	37.0	11.9		
Disagree	26.0	24.8	14.0	31.1	7.0	9.3	8.0	32.0	8.0	40.0	17.0	42.5	80.0	25.8		
Strongly Disagree	6.0	5.7	2.0	4.4	2.0	2.7	4.0	16.0	2.0	10.0	8.0	20.0	24.0	7.7		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-3. About Reliability of HRIS

	Sector														Chi-square	P
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	53.0	50.5	5.0	11.1	46.0	61.3	2.0	8.0	2.0	10.0	2.0	5.0	110.0	35.5	176.79	0
Good	37.0	35.2	3.0	6.7	24.0	32.0	3.0	12.0	2.0	10.0	3.0	7.5	72.0	23.2		
Satisfactory	12.0	11.4	35.0	77.8	3.0	4.0	17.0	68.0	12.0	60.0	33.0	82.5	112.0	36.1		
Worst	3.0	2.9	2.0	4.4	2.0	2.7	3.0	12.0	4.0	20.0	2.0	5.0	16.0	5.2		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-4. About Efficiency of HRIS

	Sector														Chi-square	P
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	58.0	55.2	5.0	11.1	53.0	70.7	2.0	8.0	3.0	15.0	2.0	5.0	123.0	39.7	177.96	0
Good	35.0	33.3	8.0	17.8	18.0	24.0	3.0	12.0	4.0	20.0	3.0	7.5	71.0	22.9		
Satisfactory	10.0	9.5	30.0	66.7	2.0	2.7	14.0	56.0	10.0	50.0	32.0	80.0	98.0	31.6		
Worst	2.0	1.9	2.0	4.4	2.0	2.7	6.0	24.0	3.0	15.0	3.0	7.5	18.0	5.8		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-5. About Security of HRIS

	Sector														Chi-square	p
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	62.0	59.0	5.0	11.1	62.0	82.7	2.0	8.0	2.0	10.0	3.0	7.5	136.0	43.9	182.21	0
Good	28.0	26.7	4.0	8.9	9.0	12.0	2.0	8.0	7.0	35.0	3.0	7.5	53.0	17.1		
Satisfactory	13.0	12.4	32.0	71.1	2.0	2.7	17.0	68.0	9.0	45.0	25.0	62.5	98.0	31.6		
Worst	2.0	1.9	4.0	8.9	2.0	2.7	4.0	16.0	2.0	10.0	9.0	22.5	23.0	7.4		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-6. About Maintainability of HRIS

	Sector														Chi-square	p
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	22.0	21.0	2.0	4.4	34.0	45.3	2.0	8.0	2.0	10.0	2.0	6.1	64.0	21.1	141.01	0
Good	59.0	56.2	4.0	8.9	31.0	41.3	3.0	12.0	3.0	15.0	9.0	27.3	109.0	36.0		
Satisfactory	22.0	21.0	26.0	57.8	8.0	10.7	18.0	72.0	11.0	55.0	20.0	60.6	105.0	34.7		
Worst	2.0	1.9	13.0	28.9	2.0	2.7	2.0	8.0	4.0	20.0	2.0	6.1	25.0	8.3		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	33.0	100.0	303.0	100.0		

*Significant at .05 level

Table-7. About Clarity in HRIS

	Sector														Chi-square	p
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	32.0	30.5	3.0	6.7	46.0	61.3	2.0	8.0	2.0	10.0	2.0	5.0	87.0	28.1	153.49	0
Good	44.0	41.9	2.0	4.4	21.0	28.0	3.0	12.0	3.0	15.0	3.0	7.5	76.0	24.5		
Satisfactory	27.0	25.7	38.0	84.4	6.0	8.0	17.0	68.0	12.0	60.0	32.0	80.0	132.0	42.6		
Worst	2.0	1.9	2.0	4.4	2.0	2.7	3.0	12.0	3.0	15.0	3.0	7.5	15.0	4.8		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-8. About Consistency of HRIS

	Sector														Chi-square	p
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	21.0	20.0	2.0	4.4	36.0	48.0	2.0	8.0	2.0	10.0	3.0	7.5	66.0	21.3	140.49	0
Good	60.0	57.1	2.0	4.4	25.0	33.3	8.0	32.0	3.0	15.0	4.0	10.0	102.0	32.9		
Satisfactory	22.0	21.0	39.0	86.7	12.0	16.0	13.0	52.0	13.0	65.0	31.0	77.5	130.0	41.9		
Worst	2.0	1.9	2.0	4.4	2.0	2.7	2.0	8.0	2.0	10.0	2.0	5.0	12.0	3.9		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-9. About Stability of HRIS

	Sector														Chi-square	p
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	30.0	28.6	2.0	4.4	44.0	58.7	2.0	8.0	2.0	10.0	3.0	7.5	83.0	26.8	124.63	0
Good	46.0	43.8	18.0	40.0	21.0	28.0	3.0	12.0	4.0	20.0	2.0	5.0	94.0	30.3		
Satisfactory	27.0	25.7	22.0	48.9	7.0	9.3	18.0	72.0	11.0	55.0	32.0	80.0	117.0	37.7		
Worst	2.0	1.9	3.0	6.7	3.0	4.0	2.0	8.0	3.0	15.0	3.0	7.5	16.0	5.2		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

Table-10. About Accuracy of HRIS

	Sector														Chi-square	p
	IT		Real Estate		BPO		Financial Services		Manpower Consulting		Travel and Tourism		Total			
	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per		
Excellent	72.0	68.6	4.0	8.9	60.0	80.0	2.0	8.0	2.0	10.0	2.0	5.0	142.0	45.8	178.19	0
Good	25.0	23.8	30.0	66.7	12.0	16.0	4.0	16.0	8.0	40.0	22.0	55.0	101.0	32.6		
Satisfactory	6.0	5.7	8.0	17.8	2.0	2.7	17.0	68.0	8.0	40.0	13.0	32.5	54.0	17.4		
Worst	2.0	1.9	3.0	6.7	1.0	1.3	2.0	8.0	2.0	10.0	3.0	7.5	13.0	4.2		
Total	105.0	100.0	45.0	100.0	75.0	100.0	25.0	100.0	20.0	100.0	40.0	100.0	310.0	100.0		

*Significant at .05 level

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