

H.R.I.S IN INDIA: A CASE STUDY OF IT SECTOR

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ABSTRACT: *With the increasing effect of globalization and technology, organizations started to use Human Resource Information System (HRIS). Its major role is in Human Resource Planning (HRP) which itself is a crucial activity in any organization. Ineffective HRP can lead to excess or less number of employees than needed. HRIS is a system which is used to acquire, store, manipulate, analyze, retrieves and distributes information about an organization's human resource. HRIS is helpful in the strategic activities of HR managers which are training and development, succession planning and in recruitment and selection and human resource planning. The research is empirical in nature as 54 respondents from top IT companies are taken into account to fulfill the objectives. After study it was concluded that HRIS is very beneficial for organization for functions like recruitment and training, human resource planning, career development of employees, performance management, employment development, employee relation, HR climate, manpower planning and performance management system. HRIS system helps senior management to identify the manpower requirement in order to meet organizations long term goals. In this research questionnaire were applied to the employees of it sector and through analysis it was found that based on gender there was no difference of employee's perception of HRIS.*

Keywords: *IT companies, Human Resource Information System, One way ANOVA, Human Resource Planning.*

INTRODUCTION

The field of human resource management (HRM) can be characterized as having encountered frequent and numerous innovations in technology. Following are the terms including the human resource information system (HRIS), electronic human resource management (e-HRM) and virtual human resource management (VHRM). "A human resource information system (HRIS) is software which contains a database that allows the storage, entering and manipulation of data about the employees of a company. Earlier, the people expectations were based on how HRIS can play an important role in organization's strategic HR activities and help in business planning. Top Management think that computer based HRIS can offer the real solution for retention of critical human resources and its development. With the help of an HRIS, the human resource department can conveniently manage employee data, whenever required providing it with computer and web-based technology, allowing them to refocus their attentions towards more

important HR activities like designing HR policies to achieve organization goals. Martinsons (1994) pointed out that HRIS is normally used for two different purposes. One for simple purposes like Payroll and benefits administration, and keeping the employee records in electronic form for administrative purpose to reduce cost and time. The other use of HRIS is for analytical decision making (Kovach and Cathcart, 1999). Interest of this study is to seek which of the HRIS applications is used and preferred for HRM in Indian industry. Whether, HRIS is used only for the purpose of administration (Robinson, 1997) or used for activities in Indian industry (Martinsons, 1994).

LITERATURE REVIEW

1. Dr. Shikha N. Khera, Ms. Karishma Gulati (2012) in their research paper have stressed upon Impact of HRIS on Human Resource Planning and the advantages of HRIS with special reference of IT companies.
2. Prof. Dr. Anil C. Bhavsar (2011) discusses various applications, benefits of HRIS. The study focused that “today’s HRIS has the potential to become an enterprise wide decision support system that helps achieve both operational and strategic objectives”.
3. Madhuchanda Mohanty and Santosh Kumar Tripathy (2009) analyzed the HRIS of NALCO in his study. The author says that the present HRIS of NALCO has improved in an overall manner and competence of HR functions, but it still needs some more improvement. The research says that HRIS is used for the purpose of administration and not for the purpose of analysis. To gain effectiveness in cost, in-house development of HRIS is decided but it was a very tedious process.
4. Kenneth et. al. (2002) discussed various administrative and strategic advantages of HRIS. Various administrative advantages highlighted by the author includes the self service among employees, interactive voice response etc. the author also propounded that business can be benefited from the administrative cost savings, along with the strategic advantage in the gathering of information, its processing and sharing.
5. Albert C. Hyde and Jay M. Shafritz (1977) conducted their study when HRIS was a new concept and just came into existence. They depicted HRIS as a tool used for planning and accountability of human resources and as a personnel management tool too. The authors also

suggested various modules, their advantages, uses etc of HRIS at that time and future scope of HRIS in human resource management.

6. Yasemin Bal, Serdar Bozkurt, Esin Ertemsir(2012) in their research paper have discussed about employee's HRIS perception and HRIS satisfaction. The result revealed that HR employee perceive HRIS useful and they are satisfied with the system.

RESEARCH METHODOLOGY

The purpose of the study is to explore benefits of Human Resource Information System implementation in IT Sector Organizations. The research is basically done to analyze the effect of HRIS on certain components like climate, performance, recruitment, employee development and training effectiveness.

RESEARCH OBJECTIVES

1. To investigate the benefits of HRIS in IT organizations.
2. To probe the role of HRIS in strategic activities by HR managers of IT sector organizations.
3. To analyze that effect of HRIS on cost and time-budgeting of HR functions.
4. To explore the overall contribution of HRIS in human resource planning of IT organizations.

SAMPLE AND DATA COLLECTION

Sample of 54 respondents from IT sector companies have taken to discern the role of HRIS in manpower planning of their organization. Method of sampling is purposive sampling method. The present study was completed within 6 months (data were collected from 31 January,2015 till 26 march, 2015).

The study was carried out with primary data using survey research method. Collection of primary data was through questionnaire method. The questionnaire was divided into two parts. First part included questions about social demographic qualifications such as name, gender, age, monthly income, work experience, designation, name of the organization and computer literacy. The second part consisted of questions related to the effect of HRIS in organization's working on a scale of 5 where 1 symbolizes "Almost always true" and 5 symbolizes "Not at all true". The questionnaire was prepared using monkey survey and shared on different social networking sites and the responses were collected in the same way.

Table 1: DEMOGRAPHIC CONFIGURATION (N=54 respondents)

Male	24	Female	30
<25 years	20	<25 years	27
>=25 years	4	>=25 years	3

TOOLS FOR RESEARCH

In the research SPSS 20.0(Statistical package for social science) is used to analyze the data. Frequency of answers and personal information of respondent (name, gender, education qualification etc..) is calculated to know the perception on different factor.

FACTOR ANALYSIS

Factor analysis is called as an interdependency multivariate analysis technique. The main application of factor analysis technique are to detect structure in the relationships between variables, that is to classify variables and to reduce the number of variables.

ONE-WAY ANOVA ANOVA

One-way analysis of variance (one-way ANOVA) is a technique used to compare mean values of three or more samples.

The ANOVA tests the null hypothesis that samples in two or more groups are drawn from the populations with the same mean values. An extension of one-way ANOVA is two way analysis of variance that examines the influence of two different categorical independent variables of one dependent variable.

LIMITATIONS OF THE STUDY

1. The foremost research limitation is on the subject of the industry perspective. HRIS role can be studied in any of the sectors as human resources are assets of the organizations irrespective of the sector. Future research efforts could be focused into exploring the impacts of HRIS on HRP among more sectors.
2. The research study was restricted to only those respondents who wish to be interviewed; therefore, in order to validate the analysis of the study, the sample could be taken from a proportionate sample of respondent of a particular area.

3. Other limitation is the static nature of the study, that is, the study is on the existing scenario of the usage of HRIS; but research can be done whether the HRIS is changing and becoming more efficient with time.
4. Other limitation is that the questionnaire survey is cost-effective and reliable to some extent but not fully reliable. Therefore, real time data should be collected from the targeted employees.

FINDING AND ANALYSIS

The questionnaire of the study was divided into two parts first part was the demographic details and the other part included question related to the effect of HRIS on organizations working. After tabulation of data in MS Excel 2007 analysis was done by applied statistical tools. Factor analysis is tool applied on the factors. SPSS data analysis software was applied to assist the analysis of data. The data obtained was subjected to descriptive analysis as shown.

Table 2: Descriptive statistics

		N	%
Cases	Valid	54	100.0
	Excluded ^a	0	.0
	Total	54	100.0

a. Listwise deletion based on all variables in the procedure.

Cronbach's Alpha is the most widely used tool to check the reliability of scale. The alpha coefficient was 0.861 for the questionnaire of the survey. If the value of Cronbach's alpha is >0.5 (the reliable level) the scale is highly reliable. The validity of the scale was found to be 0.859.

Table 3:

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.861	.859	23

Table 4:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.641
Bartlett's Test of Sphericity	Approx. Chi-Square	490.462
	df	253
	Sig.	.000

Kaiser-Meyer-Olkin test is used to assess the appropriateness of using factor analysis on data. Kmo and Bartlett’s statistics in the above table have a value .646 which determines the suitability for factor analysis. The KMO ranges 0-1, with higher values indicating greater suitability.

FACTOR ANALYSIS:

Factor analysis is a process in which values of observed data are expressed as functions of a number of possible causes in order to find which are the most important.

Table 5

	Component							
	1	2	3	4	5	6	7	8
VAR00013	.714							
VAR00004	.703							
VAR00011	.628							
VAR00003	.572							
VAR00002		.766						
VAR00006		.684						
VAR00005		.618						
VAR00007		.554						
VAR00021			.850					
VAR00012			.601					
VAR00015			.584					
VAR00018			.501					
VAR00017				.864				
VAR00016				.686				
VAR00019								
VAR00023					.808			
VAR00022					.688			
VAR00024						.840		
VAR00008						.591		
VAR00010							.862	
VAR00020							.565	
VAR00014								.787
VAR00009								.583

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 23 iterations.

SUMMARY OF EXTRACTED FACTORS

Recruitment and training Factor (F1)- 2.585 of 11.24%

Question No.	Main theme	Factor Loading
12	Training provided by competent faculties	0.714
3	Definite budget for recruitment system	0.703
10	Enough importance and duration of training	0.628
2	Structured recruitment system	0.572

Human Resource Planning Factor (F2) – 2.40 of 10.43%

Question No.	Main theme	Factor Loading
1	Manpower planning	0.766
5	Grievance management	0.684
4	Required talent is available in time	0.618
6	Creativity is encouraged among employees	0.554

Career Development Factor (F3) – 2.348 of 10.209%

Question No.	Main theme	Factor Loading
20	Necessity of development of subordinates	0.850
11	Employees are trained to develop technical skills	0.601
14	Good quality of training	0.584
17	Communication of support an employee needs from their superior	0.501

Performance appraisal Factor (F4) – 2.235 of 9.716%

Question No.	Main theme	Factor Loading
16	Scope for correction of appraisal system through review process	0.864
15	Encouragement of common understanding between appraisee and appraiser	0.686

Employee development Factor (F5) – 1.893 of 8.232%

Question No.	Main theme	Factor Loading
22	Superiors let employees try their new ideas	0.808
21	Change in behavior can be done at any stage of life	0.688

Employee Relation Factor (F6) – 1.827 of 7.941%

Question No.	Main theme	Factor Loading
23	Effective communication among employees	0.84
7	Effective feedback from top management	0.591

Human Resource Climate Factor (F7)- 1.699 of 7.386%

Question No.	Main theme	Factor Loading
9	Learning environment	0.862
19	Learning through appraisal	0.565

Performance management factor (F8)- 1.680 of 7.305%

Question No.	Main theme	Factor Loading
13	Seniors are eager to train their juniors	0.767
8	Fairness in appraisal	0.583

After analyzing the various factors from it can be easily depicted that this 8 factors contribute 72.464% of the total variance related to these factors.

INTERPRETATION: Recruitment and training is the basic function of the human resource management and that is why the first and the most important factor is recruitment and training which consists of functions like recruitment, training and management development. The second factor is human resource planning which is important factor because of the changing dynamics of the organization, as various elements of organizations are related with it like requirement of right talent on right time, manpower planning, grievance management and motivation. The other factor is career development which basically focuses on developing employee to become more competent by providing proper technical training and proper communication between employee and subordinate. The fourth factor is performance appraisal factor which consists of salary administration, job evaluation with fairness. The fifth factor is employment development, encouraging employee ideas and changing behavior of employees to adjust in the organization. The sixth factor is employee relation which includes effective communication between employees and feedback from top management. The seventh factor is HR climate which is basically to provide an environment where an employee can learn with the activities taking place around him, learning through performance appraisal. The last factor is performance management factor like helping juniors to learn by providing them training and motivating them by keeping fairness in appraisal.

RESEARCH HYPOTHESIS

We use ANOVA to determine the value of significance. This value will help determining if the condition means were relatively the same or if they were significantly different from one another. In the study the 1 question is of human resource planning with the mean 2.296 and standard deviation .717. This question has a significance value of .738 which is a value greater than .05 ($.738 > .05$), therefore null hypothesis is accepted. There were no statistically significant difference between groups based on the gender as determined by one-way ANOVA ($F(1,52) = .113, p = .738$).

For second question that is structured recruitment system we have mean value 2.296 and standard deviation .924 and has a significance value .397 which is greater when compared with 0.05 ($.397$), therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52) = .729, p = .397$).

For third question that is definite budget for recruitment system has a mean value 2.33 and standard deviation 1.009 and significance value 0.592 which is greater than .05 therefore, null

hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.291, p=.592$).

For fourth question that is required talent is available in time has a mean value 2.38 and standard deviation .898 and has a significance value .920 which is greater than 0.05 therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.010, p=.920$).

For fifth question that is grievance management the mean value is 2.55 and standard deviation .964 and has a significance value of .072 which is ($0.72 > .05$), therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=3.377, p=.72$).

For sixth question that is creativity is allowed in work has a mean value 2.555 and standard deviation 0.058 and has a significance value .030 which is less than 0.05 therefore null hypothesis is rejected. There was a statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=5.004, p=.030$). the reason for the rejection of hypothesis may be because of risk and loss in the business employees are not allowed to experiment new methods and creativity.

For seventh question that is effective communication between employees has a mean value 2.50 and standard deviation 1.041 and significance value .604 which is greater than .05, therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.273, p=.604$).

For Eight question that is fairness in performance appraisal has a mean value 2.66 and standard deviation .890 and the significance value $.543 > 0.05$, therefore null hypothesis is accepted. There was no significant statistical difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.374, p=.543$).

For Ninth question that is learning environment in organization mean value is 2.53 and standard deviation 1.022 and significance value $.977 > .05$ therefore null hypothesis is accepted. There was no significant statistical difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.001, p=.977$).

For Tenth question that is training importance and duration mean value 2.38 and standard deviation .877 and significance value .303 which is greater than .05, therefore null hypothesis is

accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=1.083, p=.303$).

For eleventh question that is employees are trained developed technical skills has a mean value is 2.55 and standard deviation .964 has a significance value $.641 > .05$ therefore null hypothesis is accepted. There was no significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.221, p=.964$).

For twelfth question that is training provided by the competent faculty mean value 2.425 standard deviation .963, has a significance value $.950 > .05$ therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.004, p=.950$).

For thirteenth question that is eagerness of seniors to help develop juniors has a mean value is 2.53 and standard deviation 1,022 has a significance value $.275 > .05$ therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=1.217, p=.275$).

For fourteenth question that is good quality of training has a mean value 2.55 and standard deviation .945 and has a significance value $.504 > .05$ therefore null hypothesis accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.452, p=.504$).

For fifteenth question that is common understanding between employees has a mean value 2.55 and a standard deviation .964 and has a significance value $.513 > .05$ therefore null hypothesis accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.454, p=.964$).

For sixteenth question that is correction in appraised report through review process has a mean value 2.66 and standard deviation .990 and has significance value $1.00 > .05$ therefore, null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=0.00, p=1.00$).

For seventeenth question that is communication of support an employee needs from their superior has a mean value 2.685 and standard deviation 1.042 and a significance value $.371 > .05$ therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52)=.815, p=.371$).

For nineteenth question that is learning through appraisal has a mean value 2.740 and standard deviation 1.012 and has a significance value $.953 > .05$ therefore null hypothesis accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52) = .004, p = .953$).

For twentieth question that is necessity of development of subordinates has a mean value 2.777 and standard deviation 1.09 and has a significance value $.869 > .05$ therefore null hypothesis accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52) = .27, p = .869$).

For twenty-first question that is behavior can be change at any stage of life has a mean value 2.592 and standard deviation .835 and has a significance value $.087 > 0.05$ therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52) = .3.040, p = .087$).

For twenty-second question that is encouraging employees ideas over yours has a mean value 2.796 and standard deviation .959 and has a significance value $.146 > 0.05$ therefore null hypothesis is accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52) = 2.177, p = .146$).

For twenty-third question that is effective communication among employees has a mean value 2.555 and a standard deviation .861 and has a significance value $.545 > 0.05$ therefore null hypothesis accepted. There was no statistically significant difference between groups based on gender as determined by one way ANOVA ($F(1,52) = .463, p = .545$).

CONCLUSION

Human resource are the important asset of IT sector organization as it the only resource where if an organization lacks the company has to bear serious consequences. There are many benefits of HRIS in IT organizations it helps the organization in planning their human resources both quantitatively and qualitatively. Being an information system it stores voluminous data about employees, that helps in identifying the occupied and unoccupied positions but also whether the person at a particular job is fit for the job or not. HRIS also helps in reducing cost like labour cost, recruitment cost etc as it is a computerized system. HRIS exhibits various strategic activities like performance management system, training and development, potential appraisal, grievance management etc. Through the sample collected during the research it was concluded

that companies are implementing HRIS system to perform various functions like manpower planning, performance appraisal, identifying training needs, succession planning, absenteeism analysis and work scheduling so as to maximize the profit and reduce the cost bear in filling the vacant posts, losing competent employees etc. Total respondents were 54 from which 30 were females and 20 males. Through sample observations it was also concluded that based on the gender there was no significant difference between employee's perceptions of HRIS. The research can be done in all sectors taking in accounts what all improvements employees want in their companies HRIS. HRIS is a continuously evolving technology so there is a lot of scope of improvements. HRIS makes all strategic activities of hr easy so that he can increase the productivity of the organization so research on what all the young minds expect from HRIS can make HRIS more effective.

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