Research Paper   **Management**

Time & Cost Savings Advantages With Usage Of Hris In Select Software Companies In Bangalore City.

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Introduction

In this global era organizations are looking for organizational effectiveness and development with the help of information technology. In this connection organizations want to utilize their human resources and retain them at workplace. The implementation of information technology in their human resource department has shown that it contributes considerably in saving time and also in cost cutting.The common benefits of HRIS frequently cited in studies include, improved accuracy, provision of timely and quick access to information and the saving of costs Lederer, (1984)1; Wille and Hammond, (1981)2 and Lederer (1984)3 discussed why accuracy and timeliness of HRIS is very important in terms of operating, controlling, and planning activities in HR. In addition, Kovach et al., (2002)4 listed several administrative and strategic advantages in using HRIS.

Similarly, Beckers and Bsat (2002)5 pointed out five reasons as to why companies should use HRIS. These include

v   To increase competitiveness by improving HR practices
v   To produce a greater number and variety of HR operations
v   To Shift the focus of HR from the processing of transactions to strategic HRM
v   To make employees part of HRIS and
v   To reengineer the entire HR function

In his 2002 HRIS Survey, Watson Wyatt(2002)6 found that the top four metrics used in formal business cases supporting HRIS improved productivity within HR organization, reduced the cost, increased return on investment, and enhanced employee communications. HRIS contribute to cost reductions, quality/customer satisfaction, and innovation according to Broderick and Boudreau, (1992)7.

According to Sadri and Chatterjee (2003)8 computerized HRIS function enables faster decision making, development, planning, and administration of HR; as data is much easier to store, update, classify and analyze.

In addition, there are inevitably transition cost associated with moving from traditional HR to an HRIS, including slowdown, mistakes other consequences associated with changing legacy systems to integrated suites, according to Brown,(2002)9.

Keeping all these in mind, an attempt has been made to analyse the usage and influence of HRIS on time and cost savings in the select software companies.

Review of literature

John Edwards (2008)10 suggested that HRMS lift the HR activities fast, in respect of **streamline processes, reduce errors, collect more data, improve budgeting, simplified access, enhance distribution, reduce duplication, improve security, better hires, easier compliance and enhance the employee morale.**

Dipankar Sarkar (2007)11 identified the IT usage in HR; the major objectives have been to find ways to reduce human costs and calculate human resource returns meaningfully through a maze of indirect costs and long term benefits.

Aston Beadles (2005)12 in their research work on usage of HRIS in public sector held that HRIS contributed organization's a valuable information, decreased costs, improved communication and time spent on mundane activities, created an environment wherein the human resources department played a more strategic role in the organization.

Buckley et.al.(2004)13 in their study explained about the role of HRIS in US Universities. All universities were found to be doing their activities like enrollments of the students, applicants' details, hire professional performance scores, and performance rating of the students with HRIS.

Haven Cockerham (2002)14 suggested after his study that merging the HRIS applications with Web, organizations found internet recruitment, cost savings, speed, accuracy, effectiveness in work.

Andrew Winthorp (2002)15 highlighted the benefits of HRIS and stated that a modern organization requires an integrated human resource system to replace manual processes for the effective utilization of human resources.

Bill Roberts (1999)16 in his study conducted with 5,000 employees of United Defense LP in San Jose and stated that HRIS is an important tool for improving the work speed and also observed that the same result in Ford Motor Co. Jim Merrill, ECM International Group Inc. and Ohio State University as well.

Research gap

If human resource management is integrated with information systems, it helps in saving time and also in reducing cost. Most of the studies are focused on the other industries leaving the software companies, which also contribute sizably to the nation's economic growth. Therefore it is proposed to conduct an in-depth study of the impact of HRIS in time and cost savings in select software companies in Bangalore City. Hence the time and cost savings advantages with usage of HRIS in select software companies in Bangalore City has been taken up for detailed investigation and analysis.

Research Objectives

v   To identify and assess the human resource information systems and their advantages in terms of time savings.
v   To identify and assess the human resource information systems and their advantages in terms of cost savings.

Major Null Hypothesis: There is no positive relationship exists between human resource information system (HRIS) and usage on time and cost savings.

Methodology

The research was conducted in top 150 software compa-

nies in Bangalore City listed by DQ India Survey of 2008. Out of 150 companies 50 companies responded positively and accorded permission and 500 questionnaires were administered at the rate of 10 respondents from each company by email and also through informal discussion, out of which 350 respondents were finally selected by adopting purposive sampling method. The data have been collected from primary and secondary sources and have been analyzed by using descriptive statistics, One-way ANOVA & 't' test. Results & Discussions

Differences in the Means of Time and Cost Savings Scores (Dependent Variables) as per Differences in Designation Categories of (Independent Variables) of the Sample.
The scores obtained from the sample in respect of the dependent variables, namely, Time and Cost Savings have been tabulated as per designation levels of the sample. One-way ANOVA was done using the Statistical Package for the Social Sciences, (SPSS) for each of the dependent variables of the total of the 35 dependent variables. ANOVA tables have been generated containing the details of each dependent variable, source of variation (between groups variation, within groups variation, total variation), sum of squares, mean square, 'F' value. A significant value of 'F' indicates that in an overall way all the 15 pairs of means would differ significantly. In the case of the variable that has significant 'F' value, the pair of means are to be tested for their significance using 't' test (two-tailed). The results obtained in respect of each dependent variable having significant 'F' value are given in Table 1.2. Also the 't' values obtained for each pair of means are tabulated. ANOVA & 't' test has been made on all the dependent variables which have significant 'F' value. For the variables that have non-significant 'F' values, analysis is done and the conclusions drawn based on only 'F' values, since there is no need to proceed with testing of the mean differences using 't' test in these cases.

Minor Null Hypothesis: Differences in designation of software professionals working in companies would not account for significant differences in their mean usage levels of all the variables of Time and Cost Savings.

In Table 1 the 't' values pertaining to mean differences of possible pairs of means of different designation categories are given.

Table: 1 Analysis of all Variables in the area of Time and Cost Savings

	ITR (N=56) (M=96.66) (SD=3.86)	HRE (N=93) (M=97.74) (SD=4.19)	AHRM (N=58) (M=95.24) (SD=4.21)	HRM (N=66) (M=95.98) (SD=3.86)	HRS (N=22) (M=94.68) (SD=4.55)	MOD (N=55) (M=95.01) (SD=3.98)
ITR(N=56) (M=99.66)		NS 1.6	NS 1.87	NS 0.96	NS 1.8	** 2.20
HRE (N=93) (M=97.74)			** 3.55	** 2.73	** 2.88	** 3.94
AHRM (N=58) (M=95.24)				NS 1.02	NS 0.5	NS 0.29
HRM (N=66) (M=95.98)					NS 1.21	NS 1.35
HRS (N=22) (M=94.68)						NS 0.3

* 't' more than or equal to 1.98 at .05 level for respective df

** 't' more than or equal to 2.61 at .01 level for respective df

Note :1. ITR : IT Recruiters, HRE : HR Executives, AHRM: Asst. HR Managers, HRM: HR Managers, HRS: HR staff, MOD: Managers of other departments.

Note :2. M= Mean

Note :3 N= Size of the sub sample

Five pairs of means significantly differ at the 0.05 level of probability and the remaining not significant. From the 't' values given, the following conclusions emerged.

i) The mean usage level of all the variables included under the area of time and cost savings of IT Recruiters is more than the mean usage level of all the variables included under the area of time and cost savings of Managers of other departments.
ii) The mean usage level of all the variables included under the area of time and cost savings of Human Resource Executives is more than the mean usage level of all the variables included under the area of time and cost savings of Asst.Human Resource Managers, Human Resource Managers, Human Resource Staff and Managers of other departments.
iii) There are no significant differences in the pairs of means of others than the once given under one and two.

Findings
Þ   Designation-wise, the mean usage level of HRIS by IT Recruiters of select software companies in time and cost savings is more than other designations.
Þ   In the area of time and cost savings IT Recruiters and Human Resource Executives, mean usage of HRIS is more than the mean usage of this variable by other designations.

Suggestions
Þ   The usage of HRIS by Asst. Human Resource Managers and Managers of other departments in the area of HR processes and time and cost savings is relatively less as against other groups of employee categories in the select software companies. The select companies have to explain the significance of HRIS through training, seminars, role plays, manuals, discussions and presentations to their staff.
Þ   There is no proper training /education to the employees in respect of HRIS on-the-job and off-the-job and online so as to make the HRIS and its usage in the software companies more effective. Therefore there is dire need to train the employees' in house and online training.

Conclusion
The usage level of HRIS is measured and its impact is analyzed in saving the time and cost according to designation level of the selected employees. Differences in the designation levels of the employees have accounted for significant differences in the mean levels of the following dependent variables:(i) prepare job description and job specification (ii) organizational job analysis (iii) training courses / schedule records (iv) recruitment and selection (v) performance appraisal (vi) advertising in company websites vii) Arranging interviews (viii) decision making (xi) personal information of employee (x) training and development (xi) compensation and (xii) HRIS cost per hire. Difference in the designation levels of the employees have not accounted for significant differences in the mean levels of the following dependent variables (i) advertising the vacancy (ii) managing the response (iii) short-listing (iv) conducting interview (v) employee training history (vi) preparing the instructor and trainee details (vii) trainee performance information record (viii) additional information of employee (ix) adding / deleting of employees (x) storing information and avoid repitition (xi) HR daily routine work.(xii) human resource planning (xiii) HRIS time spent on correcting error and (xiv) HRIS decreased input expenses.

Description of the Dependent Variable	S.V	Ss	df	M.S	F	S
Preparing job description and job specification						
	B.G	9.03	5	1.81	2.81	*
	W.G	221	344	0.64		
	T	230	349			

Organizational job analysis						
	B.G	32.9	5	6.59	6.02	**
	W.G	376	344	1.09		
	T	409	349			
Training courses / schedule records						
	B.G	13.3	5	2.67	2.88	*
	W.G	319	344	0.93		
	T	332	349			
Recruitment and selection						
	B.G	3.98	5	0.8	3.89	**
	W.G	70.3	344	0.2		
	T	74.3	349			
Performance appraisal						
	B.G	4.97	5	0.99	4.16	**
	W.G	82.3	344	0.24		
	T	87.3	349			
Advertising in company websites						
	B.G	1.23	5	0.25	2.53	*
	W.G	33.4	344	0.1		
	T	34.7	349			
Arranging interviews	B.G	6.24	5.00	1.25	2.58	*
	W.G	166.52	344.00	0.48		
	T	172.75	349.00			
Decision making	B.G	5.04	5.00	1.01	3.39	**

	W.G	102.18	344.00	0.30		
	T	107.21	349.00			
Personal information of employee	B.G	15.18	5.00	3.04	3.92	**
	W.G	266.58	344.00	0.77		
	T	281.76	349.00			

Table 1.2 : Summary of ANOVA of the Dependent Variables in the Area of Time and Cost Savings For which 'F' Values Are Significant

Continue

Training and development	B.G	10.81	5.00	2.16	7.88	**
	W.G	94.41	344.00	0.27		
	T	105.21	349.00			
Compensation	B.G	12.21	5.00	2.44	6.67	
	W.G	125.90	344.00	0.37		
	T	138.12	349.00			
HRIS cost per hire	B.G	6.84	5.00	1.37	6.31	
	W.G	74.58	344.00	0.22		
	T	81.43	349.00			

* significant at 0.05 level of probability for df (5,344), since the obtained 'F' value is equal to or greater than 2.24, which is the corresponding table value of 'F'

** significant at 0.01 level of probability of probability for (5,344), since the obtained 'F' value is equal to or greater than 3.06, which is the corresponding table value of 'F'

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