Techno-Management Perspective of HRIS- An Urban Study

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Abstract

Objectives: This paper analyzes the techno management path assumed by Human Resource Information system in a leading car manufactures in Chennai. The study enclosed the objectives of minimizing transaction time, contribution towards decision making process, maximize the accuracy, reliability and validity of workforce records, usage of information on HRIS and facilitate faster processing of information and to make optimum use of the available human resources. **Methods/Analysis:** The present study is based on descriptive analysis. Primary data is used to study the objectives and for testing the hypotheses. Employees from the Human Resource department, general supporting, IT department, and Employee relations, Finance department at operational and middle level executives were used as the sample respondents. A well assessed questionnaire was used to collect the primary data.100 responses were collected using simple random sampling for a period of fifteen days in the month of December, 2015. **Findings:** The information contributed towards decision making for the top management is less due to much time taken for data retrieval. The HR information system should monitor the updating of information by the employees periodically and this process would be facilitated through data mining software and cloud computing sharing platforms. Initializing a portal especially for employees who contains all processes can be easily accessed by the employees. **Applications/Improvement:** The rationale behind using Human Resource Information Systems (HRIS) prompted an opportunity to HR professionals to be a part of business and strategic associates with top executives. HRIS would allow the effective functioning of HR and to provide better information for decision-making.

Keywords: Decision Making, Data Retrieval, Human Resource Information, Techno Management, Transaction

1. Introduction

The rationale behind using Human Resource Information Systems (HRIS) prompted an opportunity to HR professionals to be a part of business and strategic associates with top executives. HRIS would allow the effective functioning of HR and to provide better information for decision-making. The most important issue is that with the aid of HRIS system, reports and presentations were created for business acumen. The basic function HRIS is to provide, get, store, influence, analyze, and disseminate information related with organization's essential resources specifically human resources. It is often deemed as additional facility and support provided in the form of

information to the firm using advanced technologies[1]. Researchers have proposed that HRIS is implemented at different levels: Taking part in administrative service, the automation of HR activities and bridge the gap between the line and staff function of the organization[2]. The researchers have postulated that HRIS provides effective handling, data manipulation and in turn departments can present better analysis of their present HR practices and the competencies of their employees which will lead to take a strategic decision[3]. The integration of HR process and practices are now possible with the advent of internet technologies. HRIS would help companies by effective data handling; manipulating and retrieving data at the right time, support decisions at various levels and thereby

assuring the achievement of the organization goals. Apart, it also reduce the paper work, physical storing of data etc. The probable outcomes of HRIS are quick data management, perfect data accuracy, integrated program deployment, and improved employee relations by sharing common information. Researchers have discussed about the implications of HR information system in terms of strategic asset of the organization and it minimizes the cost of operations and increases the organization efficiency[4]. It is described that HR information system also affect the quality of personnel involved in various assignments and its outcomes subsequently[5]. A study in[6] has portrayed the positive relationship between the e-tech and its interaction with HR professionals. The study concluded that it affects the perception of employees towards their job expectation and emphasized the system perspective of HRIS and how employees were threaded into it and further found a link between HR efficiency with organizational performance which leads to competitive advantage[7]. This view was supported that HRIS provided a new learning environment that affects both individual and team performance[8]. Though HRIS provided a path for success, researchers have found that the role of Information technology in managerial decision making is very minimal[9]. It would be strengthened by improved applications; capabilities considering the present needs of managerial role prevailed in the organization. Various studies conducted in the concerned field identified that the effective functioning of management is relying on governance of handling data quality, security and other related issues[10]. The incorporation of IT includes centralized planning, involvement of leadership forces in planning and execution and the administrative style during the transformation[11]. It also reflected on the role of organization's internal policies, rules, communication sharing patterns[12]. The IT adoption comprises of knowledge management issues, organization structure, culture differences and knowledge transfer[13]. With an appropriate use of HRIS which have addressed information technology as a tool for better decision-making, the other factors, as the employee's demographic profiles, position in the organization hierarchy, resource and time constraints, with varied information needs, and divergent communication facilities have influenced the track of HRIS for right decision making. This present study is conducted to identify the impact of HR techno-management system in a leading car manufacturer in Chennai. The aim of the study is to find out the factors involved in the effective

functioning of HRIS, and the extent to which impact of these factors create satisfaction of using HRIS in the organization. Though it assumed a major role in supporting decision making, few studies were conducted to identify the same. This study is conducted for the purpose of bridging the research gap in the HRIS arena. To identify the influence of factors towards the effective functioning of HRIS among employees, hypotheses were formulated.

2. Methodology

The present study is based on descriptive analysis. Primary data is used to study the objectives and for testing the hypotheses. Employees from the Human Resource department, general supporting, IT department, and Employee relations, Finance department at operational and middle level executives were used as the sample respondents. A well assessed questionnaire was used to collect the primary data. 100 responses were collected using simple random sampling for a period of fifteen days in the month of December, 2015. The study covered the objectives of minimizing transaction time, contribution towards decision making process, maximize the accuracy, reliability and validity of workforce records, usage of information on HRIS and facilitate faster processing of information and to make optimum use of the available human resources. The researcher has taken five factors consisting of 27 variables such as minimization of time, contribution to decision making, accuracy of workforce records, integration of HR process and usage of information. The collected data was used for further statistical analysis such as basic descriptive statistics, ANOVA, and multiple regressions.

3. Results and Discussion

The study has provided the following demographic profile of the respondents: It is found that 22% of the employees are below 25 years and 23% are 25-30 years and major of 32% are with 30-35 years and 16% are of with 35-40 years and only 7% are of with above 40 years. Hence majority of the respondents are of 30-35 years. It is to be found that 27% are of with 1 – 3 years of experience, 9% have 3-5 years of experience, 23% have 5 to 7 years of experience, 19% have 7-10 years and 22% are above 10 years of experience. Hence majority of the respondents are of 1-3 years of experience in Hyundai. It is found that 51% of the employees are post graduated and 41% are under-

graduation and only 8% are diploma. Hence majority of the respondents are post-graduation. It is found that 4% of the respondents are officers, 9% of them are executive, 8% are junior officers, 10% are Deputy Manager, 9% are Assistant Manager and 16% are Managers. Hence majority of the respondents are officers (Table 1).

Table 1. Demographic profile of the respondents-percentage and frequency distribution

Particulars	Frequency	Percentage	Cumulative frequency
Demographic			
Age			
Below 25 years	22	22.0	22
25-30 years	23	23.0	45
30-35 years	32	32.0	77
35-40 years	16	16.0	93
Above 40 years	7	7.0	100
Total	100	100.0	
Experience			
1-3 years	27	27.0	27
3-5 years	9	9.0	36
5-7 years	23	23.0	59
7-10 years	19	19.0	78
Above 10 years	22	22.0	100
Total	100	100.0	
Qualification			
Diploma	8	8.0	8
Under graduation	41	41.0	49
Post graduation	51	51.0	100
Total	100	100	
Department			
Human Resource	27	27.0	27
IT Support	13	13.0	40
General Supporting	30	30.0	70
Employee Relations	12	12.0	82
Finance	18	18.0	100
Total	100	100.0	
Designation			
Executive	9	9.0	9
Officer	48	48.0	57
Junior officer	8	8.0	65
Deputy manager	10	10.0	75
Assistant manager	9	9.0	84
Manager	16	16.0	100
Total	100	100	

Source-Primary Data

The interpretation showed that P value for the factor 'Minimization of time' is less than 0.05 for the demographic factors age, qualification, designation and experience which shows that the null hypothesis is rejected. Therefore age, qualification, designation and experience has influence on the use of HRIS in their department. The factor 'Contribution to decision making' has also influenced by the age, qualification and experience of the respondents except their designation. This is due to the fact that the using HRIS for decision making is purely based on organization hierarchy and the prevailing information sharing system in the organization. As the P value is greater than 0.05, the null hypothesis is accepted and the other factors 'Accuracy of Workforce Records', 'Integration of HR Process' and 'Usage of Information' haven't influenced by the age, qualification, experience and designation of the respondents. The respondents are of the opinion that HR information usage is reflected in other HR functions such as competency analysis, performance analysis, identifying training need, potential talent management etc. which will ensure the accuracy of the records of employees and entice the integrated HR system in the organization (Table 2).

In order to identify the impact of various components of information used on human resource towards the overall satisfaction regression analysis is used. The multiple regression lines were estimated to analyses the impact of information stored and utilized. The general form of the regression model for the present study is given below.

$Y = a + a_1 x_1 + a_2 x_2 + a_3 x_3 + a_4 x_4$

Y = Overall Satisfaction of HRIS.

A1- Minimization of Time.

A2- Contribution to decision making.

A3- Accuracy of Workforce Records.

A4- Integration of HR Process.

A5- Usage of Information.

The R^2 value explained 70 percent of the variations in the opinion by the respondents. As the computed F value (45.227) and significance of F value is less than 0.05 indicated that the regression model is fitted for analyzing the

Table 2. Demographic characteristics of the respondents with HRIS components- ANOVA single factor

HRIS components	Age		Qualification		Designation		Experience	
	P value	Result	P value	Result	P value	Result	P value	Result
Minimization of Time	.032	Rejected	.002	Rejected	.001	Rejected	.013	Rejected
Contribution to decision making	.278	Accepted	.072	Accepted	.027	Rejected	.239	Accepted
Accuracy of Workforce Records	.234	Accepted	.081	Accepted	.045	Accepted	.211	Accepted
Integration of HR Process	.561	Accepted	.092	Accepted	.061	Accepted	.530	Accepted
Usage of Information	.644	Accepted	.456	Accepted	.423	Accepted	.618	Accepted

Source-Primary Data (significant at 5%)

Table 3. Multiple regression-overall satisfactions of HRIS

		Regression co-efficient					R Square	F	Sig.Value
Categories	Size	A1	A2	A3	A4	A5			
Overall Satisfaction	100	.003*	.084	.007*	.676	.008*	.706	45.227	0.000

*significant at 5%.

employee satisfaction towards HR information system in the organization. The regression Co-efficient revealed that out of five components, minimization of time, accuracy of workforce records, and the usage of information have significant impact on satisfaction of the employee towards HRIS. The remaining components decision making and integration of HR process have no significant impact on satisfaction towards HRIS practices (Table 3).

Out of the total respondents, 27% were from HR department, 13% from IT support, 30% from General Supporting, 12% from Employee Relations and 18% from Finance department. 48% of the respondents are officers, 9% of them are executives, 8% are junior officer, 10% are deputy manager, 9% are assistant manager and 16% are managers. 32% of the respondents are 30 to 35 years of age and 7% of the respondents are above 40 years. 51% of respondents are postgraduate degree holders and 8% of the respondents are completed diploma. 27% of the respondents have 1 to 3 years of experience and 9% of the respondents have 3 to 5 years of experience. The ANOVA revealed that out of five factors, the minimization of time has influence with the all the demographic profile of the respondents. When employees getting older and experienced their perception towards organization practices specifically HRIS is also changed. Their position in the organization hierarchy is influencing the way they use HRIS for organizational purpose. Employees at operational level use it for administrative purposes. At middle level, it is used for analysis and reporting purpose and at the top level; it is used for decision making in HR

arena such manpower planning, career analysis, culture mapping, workforce engagement and spirituality. Though they felt unanimously HRIS is an effective tool to reduce their information transaction time, their demographic characteristics provided a different outlook on HRIS. The other factors have not much influenced by the profile of the respondents. The regression analysis pinpointed that minimization of time, accuracy of workforce records, and the usage of information has significant impact on satisfaction of the employee towards HRIS. The reason would be of HR information system support corporate to simplify selection process, reduce the recruitment cycle time, improve the quality of the hired, can introduce various variable benefit plans, protected compliance management etc. It is found out from the research that the information contributed towards decision making for the top management is less due to much time taken for data retrieval. The HR information system should monitor the updating of information by the employees periodically and this process would be facilitated through data mining software and cloud computing sharing platforms. Still, by initializing a portal especially for employees which contains all process that can be easily accessed by the employees.

4. Conclusion

This study helps to understand the role of Human Resource Information System towards the organization and also to figure out the various factors involved to improve the HR information system effectiveness. The

term human resource information means any form of data and statistics of an individual working in the organization. Hence the human information acts as a medium that enhances the employer by in decision making in their work and creates a big support to their organization. This would help the employer in taking decisions independently without any intervention. It is the responsibility of the firm to integrate the effective utilization of HRIS in the organization. Thus, an HRIS system permits a business to simplify the employee management ranging from employee recruitment to retirement. A user friendly self service HR system would ensure timely decision making, less administrative work and cost efficiency.

5. References

1. Tang, CM. The role of information systems on organisational effectiveness of companies in Malaysia. Multimedia University (Malaysia): ProQuest, UMI Dissertations Publishing; 2011.
2. Lucas-Aseltine LD. An analysis of the certified human resources professional model: Through the lens of adult education. University of Manitoba (Canada): ProQuest, UMI Dissertations Publishing; 2007.
3. Lukaszewski KM. The effects of the ability to choose a method of disclosing data and the type of data on reactions to an HRIS. State University of New York at Albany: ProQuest, UMI Dissertations Publishing; 2002.
4. Kanumuri, JV. Streamlining the human resource value chain by developing a HR intranet and workflow application. University of Louisville: ProQuest, UMI Dissertations Publishing; 2001.
5. Spaulding AC. Human resource management systems: The search for quality and effectiveness in healthcare delivery. The Texas A&M University System Health Science Center: ProQuest, UMI Dissertations Publishing; 2011.
6. Polen LL. Perceptions of electronic technology impacts upon human resource professionals. University of Phoenix: ProQuest, UMI Dissertations Publishing; 2009.
7. Ferguson KL. Human resource management systems and firm performance. University of Louisville: ProQuest, UMI Dissertations Publishing; 2006.
8. Perry JT. Toward a learning model on information technology implementation. The Pennsylvania State University: ProQuest, UMI Dissertations Publishing; 2006.
9. Wood RS. The Internet: A decision-support information technology for public managers. University of La Verne: ProQuest, UMI Dissertations Publishing; 2000.
10. Jacobsen DA. Enterprise resource planning implementations within the US Department of Defense: The effectiveness of department and individual programmatic governance in improving data and information environment quality. Capella University: ProQuest, UMI Dissertations Publishing; 2008.
11. Julia JB. The influence of planning on institutional transformation: A study of information technology. University of Michigan: ProQuest, UMI Dissertations Publishing; 1996.
12. Poku K. Impact of corporate orientation on information technology adoption in the United States forest products industry, Louisiana State University and Agricultural and Mechanical College: ProQuest, UMI Dissertations Publishing; 2003.
13. Bachor VW. Information and communications technology knowledge diffusion within the multinational enterprise. University of Calgary (Canada): ProQuest, UMI Dissertations Publishing; 2008.