Impact of Human Resource Information System on HR Manager's Professional Standing

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Abstract—Today companies begin to compete in the challenging business environment of the new millennium, an ever-increasing reason for success lies in the function of effective Human Resource Management (HRM). In the Last few years Human Resource function has changed within organization. Its function has grown considerably and has shifted into a more strategic role rather than providing support for administrative paperwork. Today organization deploys the information system for achieving efficiency, effectiveness, enhancing quality and gaining competitive advantage. To achieve same objective Human Resource department deploy Human Resource Information System (HRIS). Human Resource Information System is an intersection of human resource management and information technology. Human Resources Information Systems is now expected to drive Human Resource (HR)'s transition from an administrative and operational role to a strategic role. Despite the growing presence of Information Technology within organizations, however we do not have clear understanding of how Information Technology impacts the role of Human Resource Professional. This paper analyzes impact of Human Resource Information System on Human Resource's Professional standing. It attempts to examine how HR manager's in different organizations see the effects of Human Resource Information System on strategic Human Resources tasks and job roles. Also tries to find out if there is any significant difference in the usage of Human Resource Information System between small/medium (SME) size and large size companies. The questionnaire was sent to 300 companies out of which 114 were received and complete. Response rates were 38.333.

Keyword- HRI System, HR Managers

I. INTRODUCTION

Information act as power in today global economy. Timely, consistent and accurate data on selection, planning, recruitment, development, career planning, skills inventory etc are key requirement of human resource professionals. Gaining competitive advantage and achieving effective quality standard organization utilize information system. To achieve the same goal human resource department use human resource information system. Function of human resource management has been changed over last few year it become more strategic role instead of supporting for administrative paper work. Now it is known by strategic human resource management to enhance organization achievement and unique selling point human resource team must focus on a new set of option. The new set of option is more strategic oriented and less focused on traditional human resource function.

Human resource role is enhanced by the strategic function and it also adds to the expertise of HR professional. HR professional need a system which fulfil the requirement of new roles and responsibilities as well as traditional human resource work. This is where concept of HRIS start to come

in Human Resource Information Systems (HRIS) refers to the systems and processes at the intersection between human resource management (HRM) and information technology (www.Wikipedia.org). HRIS is software that store, process and provide accurate, consistent and timely employee data for decision making. And spend less time on clerical task and play major role in strategic task. HRIS help HR professional to maintain absent and leave management, benefit administration, workflow, performance appraisal, recruiting and application tracking, reporting and basic analysis etc.

Thus paper explore the new role of HR manager and application of HRIS in fulfilling their roles and contribution of HRIS in developing HR manager professional status..

II. LITERATURE REVIEW

Literature Review

In current framework of globalization and modernization, information is powerful tool. For efficient management of Human Assets, Human Resource Professionals requires accurate and timely data on recruitment, selection, training, development, career planning, compensation, productivity, skills inventory, attrition rate etc.

Human Resource Information System is the system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information regarding an organization's human services and the purpose of Human Resource Information System is to provide service, in the form of information to the clients or users of the system. (Scott Tannenbaum, 1990) Rapid changes in information systems (IS) in last five decades have been strongly influential on modern organisations (Avison and Shah, 1997; Chaffey, 2003). Many organisations are using Information System as a tool for enhancing efficiency. This is consistent with the writings of Information System writers like Edwards et al (1995), Elliott and Starkings (1998), Renkema (2000), and, Laudon and Laudon 2002) the use of Information System, which includes systems such as Human Resource Information System, has become widespread in most organisations and more employees and departments in all types of organisations are heavily reliant on such systems. Softworld (1996/7) also reported a rise in the use of Human Resource Information System in the U.K. The reducing cost of personal computers has provided medium and smaller businesses access to both hardware and hardware for the use of Human Resource Information System (Ball, 2001)

According to Kavanagh, Gueutal and Tannenbaum, "A Human Resource Information System (HRIS) is the system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information regarding an organisation's human resources.

According John W Jones, Virtual HR 1998, Crisp Publications, "The use of computer system, interactive electronic media and telecommunications networks used to carry out the functions of Human Resources Departments. A Human Resource Information System is not simply computer hardware and associated Human Resource related software, it also includes people, forms, policies and procedures and data. The purpose of Human Resource Information System is to provide service, in the form of information to the clients or users of the system.

C.S. Venkata Ratnam & B.K. Shrivastava have stated the basic purpose of Human Resource Information System is to store information and data of each individual employee, to provide basis for decision making, planning, budgeting & implementing Human Resource functions, to supply data to government.

Human Resource Information System is a source for Human Resource managers for performing their job roles more professionally. This research will investigate whether, and to what extent Human Resource Information System are enabling Human Resource managers to enhance their job roles to attain increased professional status. It will evaluate whether Human Resource Information System are enabling current Human Resource managers to achieve increased recognition and professionalism. This will be examined by looking at the nature of Human Resource Information System and the nature of Human Resource managers' job roles (traditional and new emerging ones) followed by a focus on the impact of Human Resource Information System on Human Resource managers' job roles.

Objectives of the study

- To focus on the contribution of Human Resource Information System in developing professional status.
- To explore the role of Human Resource manager and use of Human Resource Information System in fulfilling their roles.
- To compare the impact of Human Resource Information System on Human Resource Professional of Small/Medium and Large Organization.

III.   METHODOLOGY

Hypotheses

Hypothesis 1: There is a significant impact of Human Resource Information System on   Human Resource Professional standing.
Null Hypothesis: There is no significant impact of Human Resource Information System on Human Resource professional standing.

$H_0: \mu = 3$
Alternative Hypothesis: There is a significant impact of Human Resource Information System on Human Resource Professional standing.

$H_1: \mu > 3$
z-test for single mean is used to test the null hypothesis. To measure the scope of Human Resource Information System technological development i.e. to determine the impact of Human Resource Information System on human resource professional a scale 1 to 5 Not at all (1) to very much (5) was provided to respondents.

Hypothesis 2: Human Resource Information System plays a major role in strategic Human Resource task.
To assess difference between the mean value and hypothesized mean sample z-test was applied. To find out the scope of HRIS role respondents were asked to express their opinion using scale 1 to 5 (Not at all, 1 and very much 5). Mean value greater than 3 assumed to support for hypothesis 2 above.

Null Hypothesis: Human Resource Information System does not play any major role in strategic Human Resource task.
$$H_{20}: \mu = 3$$

Alternative Hypothesis: Human Resource Information System plays major role in strategic Human Resource task.

$$H_{21}: \mu > 3$$

Hypothesis 3: There is a significant difference between the role of Human Resource Information System in small/ medium and large companies in support Human Resource task.

To test the significance of difference in the mean usage of Human Resource Information System in small medium organization and large organizations for each strategic task an independent sample z-test for difference of mean was used. To measure response, respondents were given a scale 1 to 5 to indicate the level of Human Resource Information System support.

Null Hypothesis: There is no significant difference between the role of Human Resource Information System in small/ medium and large companies in support of strategic on Human Resource task.

$$H_{30}: \mu_{SME} = \mu_{large}$$

μ mean extend to which Human Resource Information System is used.

Alternative Hypothesis: There is a significant difference between the role of Human Resource Information System in small, medium and large companies in support of strategic Human Resource task.

$$H_{31} \ \mu_{SME} \neq \mu_{Large}$$
(Z test for difference of mean)

IV. EMPRICAL RESULT AND ANALYSIS

The statistical analyses of the data obtained from the survey are as follows:

The Response rate
The questionnaire was sent to 300 companies out of which 114 were received and complete. Response rates were 38.333.

Presentation of the research findings
 This section presents the result from empirical studies the findings were reviewed by considering the different formulated hypothesis one after the other.

Hypothesis 1
H_{1o}: There is no significant impact of Human Resource Information System on Human Resource professional standing.

H_{11}: There is significant impact of Human Resource Information System on Human Resource Professional standing**.**

In order to verify this statement, respondents were asked, "How would you rate your professional standing in the organization after using Human Resource Information System (HRIS)? Respondents were asked to rate the change their professional standing in their organization after using Human Resource Information System.
The table 1 gives the summary of response collected from a sample of 114 respondents. The mean value calculated was 4.09

Table 1: Summary of Ratings of Change in professional standing of Human Resource managers after using Human Resource Information System

	N	Mean	Std. Deviation	Std. Error Mean
Change in professional standing after using Human Resource Information System	114	4.09	.389	.036

In order to test the hypothesis we had taken the test hypothesis that there is no significant impact of Human Resource Information System on Human Resource professional. The hypothesis was tested using one sample z test with hypothesized mean value 3.

In order to test the significance of difference between the hypothesized mean values 3 from sample mean (4.09), one sample z test is applied. Result is shown in the table 2 below. The test resulted in significant value of z (Pvalue <0.05). This result indicates that there is a significant difference between the hypothesized value and the sample mean. We therefore we reject the test hypothesis (null hypothesis (H_0)) and conclude that there is significant impact of Human Resource Information System on Human Resource professional

Table 2: Test of significance of Change in professional standing of Human Resource managers after using Human Resource Information System.

	Test Value = 3					
	z	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Change in professional standing after using Human Resource Information System	29.835	113	.000	1.088	1.02	1.16

Hypothesis: 2

H_{20}: Human Resource Information System not play major role in strategic Human Resource task.

H_{21}: Human Resource Information System play major role in strategic Human Resource task.

In order to test this hypothesis, respondents were asked to rate the extent to which they use Human Resource Information System in support of various strategic Human Resource tasks. The response has been summarized in following table 3.

Table 3: Summary of ratings given by Human Resource managers to the extent of role of Human Resource Information System in different strategic Human Resource tasks

Strategic Task	N	Mean	Std. Deviation	Std. Error Mean
Human resource development and work place	114	4.04	.657	.062
Learning	114	4.07	.606	.057
Communication	114	4.11	.709	.066
Career Management	114	4.15	.681	.064
Leadership Management	114	4.21	.685	.064
Business Process Reengineering	114	4.08	.706	.066
Managing Relation with the Organization's trade union	114	4.08	.777	.073
Decision Making	114	4.38	.670	.063

In order to test the hypothesis that there is no major role of Human Resource Information System in various strategic Human Resource tasks, independent sample z test is used. Results of z test are shown in the table 4 below. The test resulted in significant value of z (Pvalue <0.05) for all the strategic Human Resource tasks. Thus null hypothesis (H_{20}) is rejected. This result indicates that Human Resource Information System play major role in all strategic Human Resource tasks. (H_{21}) is confirmed.

Table 4 Test of significance of extent of role of Human Resource Information System in different strategic Human Resource tasks

Strategic Task	Test Value = 3				95% Confidence Interval of the Difference	
	z	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Human resource development and work place	16.963	113	.000	1.044	.92	1.17
Learning	18.869	113	.000	1.070	.96	1.18
Communication	16.654	113	.000	1.105	.97	1.24
Career Management	18.006	113	.000	1.149	1.02	1.28
Leadership Management	18.882	113	.000	1.211	1.08	1.34
Business Process Reengineering	16.322	113	.000	1.079	.95	1.21
Managing Relation with the Organization's trade union	14.819	113	.000	1.079	.93	1.22
Decision Making	21.935	113	.000	1.377	1.25	1.50

In order to test this hypothesis, another question is also consider in which respondents were asked to rate the extent to which Human Resource Information System plays role in strategic Human Resource task . The summary of the responses has been shown in following table 5:

Table 5: Summary of ratings to the Extent to which Human Resource Information System play role in strategic Human Resource task

	N	Mean	Std. Deviation	Std. Error Mean
Extent to which Human Resource Information System play role in strategic Human Resource task	114	3.96	0.419	0.039

In order to test the hypothesis that Human Resource Information System does not play a major role in strategic Human Resource tasks, independent sample z test is used. Results of z test are shown in the table 6 below. The test resulted in significant value of z (Pvalue <0.05). This result indicates that Human Resource Information System plays major role in strategic Human Resource tasks.

Table 6: Test of significance of Extent to which Human Resource Information System play role in strategic Human Resource task

	Test Value = 3				95% Confidence Interval of the Difference	
	z	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Extent to which Human Resource Information System play role in strategic Human Resource task	24.575	113	.000	0.965	0.89	1.04

Hypothesis 3

H_{30}: There is no significant difference between the role of Human Resource Information System in small, medium and large companies in support of strategic Human Resource task.

H₃₁: There is significant difference between the role of Human Resource Information System in small, medium and large companies in support of strategic Human Resource task.

In order to test this hypothesis we had taken the test hypothesis that there is no significant difference between the role of Human Resource Information System in small, medium and large companies in support of strategic Human Resource task.

The hypothesis was tested using independent sample z test. Respondents of Small/ Medium and Large organizations were asked to rate the extent to which they use Human Resource Information System in support of various strategic tasks.

Table 7: Summary of the role of Human Resource Information System in small, medium and large companies in support of strategic Human Resource tasks.

Strategic task	Size of Organization	N	Mean	Std. Deviation	Std. Error Mean
Human resource development and work place	Small/Medium	55	4.00	.638	.086
	Large	59	4.08	.677	.088
Learning	Small/Medium	55	4.05	.705	.095
	Large	59	4.08	.501	.065
Communication	Small/Medium	55	4.05	.678	.091
	Large	59	4.15	.738	.096
Career Management	Small/Medium	55	4.18	.696	.094
	Large	59	4.12	.672	.087
Leadership Management	Small/Medium	55	4.22	.738	.099
	Large	59	4.20	.637	.083
Business Process Reengineering	Small/Medium	55	4.07	.663	.089
	Large	59	4.08	.749	.098
Managing Relation with the Organization's trade union	Small/Medium	55	4.24	.666	.090
	Large	59	3.93	.848	.110
Decision Making	Small/Medium	55	4.42	.658	.089
	Large	59	4.34	.685	.089

In order to test the significant of difference in extent to which Human Resource Information System is used in small medium and large organization, for various strategic tasks,.

Table 8: Test of significance of difference in the role of Human independent sample z test is used. Results of z test are shown in the table below

Strategic Task	Z-test for Equality of Means						
	z	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Human resource development and work place	-.687	112	.494	-.085	.123	-.329	.160
Learning	-.265	112	.792	-.030	.114	-.256	.196
Communication	-.736	112	.463	-.098	.133	-.362	.166
Career Management	.493	112	.623	.063	.128	-.191	.317
Leadership Management	.115	112	.909	.015	.129	-.241	.270
Business Process Reengineering	-.090	112	.928	-.012	.133	-.275	.251
Managing Relation with the Organization's trade union	2.119	112	.036	.304	.144	.020	.589
Decision Making	.629	112	.531	.079	.126	-.170	.329

The outcome of z test say that there is no significant difference in the extent to which Human Resource Information System is used in Small Medium and Large organization, for all the strategic tasks (P value >0.05) except for task of "Managing Relation with the Organization's trade union" for which there is significant difference in the extent to which Human Resource Information System is used in small medium and large organization (P value <0.05).

V.   DISCUSSION AND CONCLUSION

The study aims at investigating Impact of Human Resource Information System on Human Resource Manager's Professional Standing. The target groups for the survey were Human Resource managers companies based in Madhya Pradesh State of India. A survey questionnaire was sent to Human Resources professionals of 300 companies and response was received from Human Resources Professionals of 114 companies. The scope was broadening by including both Large and Small/Medium sized organizations across all the business sectors. Expand the role of Human Resource manager by considering eight tasks which is Human Resource Development and Workplace Learning, Career Management, Commitment Management, Leadership Management, Business Process Reengineering, Managing Trade Union and Decision-Making as a strategic Human Resources tasks. Application of HRIS enables to execute strategic task more efficiently and expertly. The result indicated that there is a significant impact of Human Resource Information System on Human Resource Professional Standing because using Human Resource Information System enhanced their professional standing in their organization. This is evident from finding organization belief on the adoption of human resource information system for in support of strategic human resource task has enhanced. Thus evidence shows that there is significant impact of Human Resource Information System on Human Resource Manager's professional standing.

The survey indicates that HR professionals favour the usage of HRIS for their strategic tasks. Hence HR professionals validate that the HRIS has an important position in HR task. The study justifies the statement that Human Resource Information System plays a major role in strategic Human Resource tasks. Thus it confirms our first objective to explore the role of Human Resource manager and the use of Information System in fulfilling role.

The studies also reveal usage of Human Resource Information system in support of strategic task is same in large sized firms and small sized firm. Moreover, there was no significant difference in proportion to the size of a company regarding Human Resource Information System usage in support of Human Resource Development and Workplace Learning, Career Management, Commitment Management, Leadership Management, Business Process Reengineering, and Decision-Making as strategic Human Resource tasks except managing trade union relations. Managing trade union task is a comparatively used more in small companies and less use in large size organization. May be as large size companies already provide good incentive and benefit to their employee compare to small companies so they have comparatively less trade union issues. So it might be due to this factor that Human Resource Information System will be used more in case of managing trade unions in small companies.

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