

Barriers to the Implementation of Human Resource Information Systems

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ABSTRACT

Organization success mostly depends on the effective utilization of its valuable human resources. Now-a-days, human resources are treated as strategic assets need to achieve sustained competitive advantage and outperform the rivals. Organizations than ever are increasingly adopting HRIS (as comparatively new technology in HRM) for ensuring the effective utilization of their human resources. But many challenging issues keep the organizations lag behind to enjoy the benefits of this technology. Here, the authors tried to explore those hurdles based on the responses of human resource (HR) executives from some companies operating in Bangladesh. The research found management reluctance; employee privacy issues, organizational internal resistance, and conversion cost are the most potential that impede the effective implementation of HRIS. Finally, some measurable actions required to improve the effective execution of this technology are suggested.

Keywords: HRIS, Implementation, Barriers

INTRODUCTION

Today's organizations are under both the pressure of reducing cost of operations and the pressure of being responsive to the customers' demands. It is more intense for service oriented organizations, like university, telecommunication, pharmaceutical, hotel, airline, bank, etc. The use of human resource information systems (HRIS) leads to valuable outcomes for the organization as it decreases costs, improve communication and decrease time to accomplish HR related activities (Beadles, Lowery and Johns, 2005). With the undoubted benefits of this technology, most of the enterprises, especially small & medium, are not capable to exploit the full benefits of it. It is due to some problems behind the proper execution of this technology. A survey conducted by the Institute of Management and Administration in the year 2002. Survey found lack of staff, lack of budget, problems with time management; need to work with other departments and lack of information technology support (Ngai and Wat, 2006) as challenges in managing HRIS. Since, these are general obstacles related to any information system, a list of more specific obstacles are also potential during implementing and managing HRIS. Some of these barriers are related to ambiguity in tracing out the key persons responsible for basic HRIS design, complexity in formulating HR policies under several national laws, threat of losing personal data HRIS encompasses, and difficult to measure the return on investment (ROI). In this study, the authors have tried to find out the benefits of HRIS, challenges behind the proper execution of this technology, and some measurable actions to overcome these challenges.

RESEARCH OBJECTIVES

The main objective of this study is to explore the barriers that impede the effective implementation of HRIS in modern organizations. To materialize the main objective, the study attempted with the following specific objectives:

1. To pinpoint the associated with the applications of IT-enabled HRM.
2. To explore the emergent problems & challenges those interrupt the effective execution of HRIS in the organization.
3. To recommend some measurable actions to ensure effective implementation of HRIS.

RESEARCH QUESTIONS

To generalize the main objective of this study, authors dealt with the following questions:

Q.01: How does HRIS motivate HR professionals?

Q.02: What are the hurdles behind implementing HRIS in organization? (To identify the problems associated with the implementation of HRIS in Bangladesh).

Q.03: What should the organizations do to overcome such barriers? (To suggest alternative ways for solving problems associated with the implementation of HRIS).

RESEARCH METHODOLOGY

Sources of Data

Both primary and secondary data were used in this study. Primary data were collected through a semi structured mailed questionnaire to HR executives engaged in the selected companies operating in different industries in Bangladesh. A questionnaire comprising of different aspects of HRIS was used to collect data on related to HRIS (Appendix-A). Besides, to prepare theoretical and other aspects of this study, the required data were collected from frequently cited journal articles, thesis papers, company magazines, bulletins, manuals, annual reports, websites and other published and unpublished sources.

Sampling Technique and Sample Size

The study followed purposive sampling technique to select the sample companies considering time, cost, distance and other constraints. Considering different barriers and constraints, the study covered 18 companies working under different industries. The sample companies are: GlaxcoSmithKline (GSK) Bangladesh Ltd., Bangladesh Bank, Sanmar Properties, International Islamic University Chittagong (IIUC), Export-Import Bank Ltd., Synthos Laboratories Ltd. International Finance and Investment Company (IFIC), Unilever Bangladesh Ltd., Eastern Bank, Syngenta Bangladesh, KDS Garments, Barger Paints BD Ltd., British American Tobacco Company Ltd., Airtel Company Ltd., Bank Asia, Arong, Bangladesh Steel and Reruling Mills Ltd., Mostofa Group of Companies.

Data Processing and Analyzing

The collected data were properly edited, coded, processed, and analyzed. Analytical tools used in the study include frequency distribution and percentage.

LITERATURE REVIEW

Human Resource Information System (HRIS) is used to gather and maintain the data that describe human resources, transforming data into information and then reporting the

information to users (Ngai et al, 2008). The use of a HRIS would reduce HR costs by automating information and reducing the need for large numbers of HR employees; by helping employees to control their personal information; and by allowing managers to access relevant information and data, conduct analysis, decide, and communicate with others without consulting an HR professional (Awazu & Desouza, 2003; Ball, 2001). Despite having several obvious benefits of this technology, organizations, especially from developing & under developed countries, are not in the position to enjoy the full benefits of HRIS due to some obstacles and challenges interrupting the proper implementation. The study of Krishnan and Singh (2006) explored the issues and barriers faced by nine Indian organizations in implementing and managing HRIS. They found two important barriers, such as; lack of knowledge of HR department about HRIS and less focus on HR department. Further, Dr. Batool S. Q., Dr. M.A Sajid, & Dr. Raza S. H. (2012) concluded the implementation of HRIS causes some problems such as lack of expertise, technical problems, lack of funds, and time consumption by the untrained staff. In addition, Yin, (2003); Youndt, Snell, Dean, & Lepak, (1996) tried to identify the challenges of implementing HRIS. They found three challenges for the organization. First challenge is an inconsistency in the importance attributed to HRIS resulting difficulties on holding management commitment to the project and in obtaining the resources necessary to fully develop the new or upgraded HRIS. Second challenge is a tendency to underestimate the complexity of the HRIS and its impact on the behavior and processes of the organization. The barrier to user acceptance of the HRIS and the consequent underestimation of the importance of change management is the final challenge behind the effective implementation of HRIS in business.

FINDINGS

Demographic

Among the respondent firms, 17% have less than 200 employees, 22% have 200 -- 300 employees, 11% have 300 -- 500 employees, and 50% have more than 500 employees.

Table 1. Number of Respondents Working in firms

<i>Class Interval</i>	<i>No. of Companies</i>	<i>Percentage</i>
Less than 200	3	17%
200 -300	4	22%
300 -500	2	11%
More than 500	9	50%
Total	18	100%

Most of the selected firms are under the manufacturing sector. And the rest are from the service sector.

Table 2. Nature of Operations of Sample Companies

<i>Particulars</i>	<i>No. of Companies</i>	<i>Percentage</i>
Manufacturing	10	56%
Service Oriented	8	44%
Total	18	100%

Most of the sample respondents have HR Specialized Degree or have specialized training in the field of HR, and the remaining also have worked as HR Specialist for a long time [insert-table-III].

Table 3. The reasons for being HR professional

<i>S.L.</i>	<i>Particulars</i>	<i>No. HR Professionals</i>	<i>Percentage</i>
01.	HR Specialized Degree	11	61%
02.	Trained in the field of HRM	3	17%
03.	Worked as HR Specialist	4	22%
	Total	18	100%

Benefits of HRIS

HRIS provides the different obvious benefits for the organizations of 21st century. The biggest benefit to organizations of using IT in HRM is the freeing of HR staff from intermediary roles so that they can concentrate on strategic planning in human resource organization and development (Pinsonneault & Kraemer, 1993). Kovach et al. (2002) list several administrative and strategic advantages to using HRIS. In 1992 a survey by Overman (1992) concluded that the potential advantages of HRIS are faster information processing, greater information accuracy, improved planning and program development, and enhanced employee communications. All of these benefits are types of administrative efficiency. One study even goes as far as to suggest that there is evidence that HRIS can improve shareholder value (Brown, 2002). Basically, the impact of technology in HRM falls into two main areas—the impact on the efficiency of the delivery of HR processes and the impact on the role of the HR function itself. Moreover, common benefits of HRIS frequently cited in studies include improved accuracy, the provision of timely and quick access to information, and the savings of personnel costs (Tetz, 1973; Wille and Hammond, 1981). On the other hand, it proves very important in the timeliness of HRIS in terms of operating, controlling, and planning activities in HR (Lederer, 1984). Furthermore, Broderick and Boudreau (1992) examine how HRIS can contribute to cost reductions, quality/customer satisfaction, and innovation. The following table shows the benefits of IT-enabled HRM according to the viewpoints of different authors:

Table 4. Benefits of HRIS

<i>Author</i>	<i>Benefits</i>
Lengnick-Hall and Moritz (2003)	Fewer HR professionals are needed Speeds up transaction processing, Reduces information errors, and Improves the tracking Control of human resource actions Improves service delivery
Sadri and Chatterjee (2003)	Fasten HR decision making Strengthen an organization’s character.
Beckers and Bsat (2002)	Increase competitiveness improving HR operations Produce a greater number and variety of HR reports Shift HR focus from administrative to strategic HRM Reengineer the entire HR functions of companies

Hence, HRIS reduces requiring human resource professionals, speeds up transaction processing, reduces information errors, and improves the tracking. It also further enables to control of human resource actions, improves service delivery, accelerate HR decision, increase company competitiveness, shifts HR focus from administrative to strategic HRM, and reengineer the entire HR functions of companies.

Barriers to HRIS Implementation

With the undoubted benefits of HRIS in organization, it has been seen that many organizations, especially from the third world countries, are not in the position to enjoy full benefits. Moreover, the challenges towards effective implementation of HRIS are related with meeting employees’ expectations (Fisher and Howell, 2004, p. 243), loss of personal interaction between HR and the people of the organization, developing an informational culture (Torrington et al., 2002), and to elaborate an effective change management approach (Claver et al., 2001). From the table below (Table 5), it has been seen that four most important barriers and challenges toward effective execution of HRIS are: top management’s reluctance, privacy issues for employees, organizational internal resistance to implement HRIS, and the conversion cost (from traditional approach to HRIS). That means, if the top managers take initiatives and employees stop resistance to change for any reasons the HRIS can easily be implemented in most of the firms (78%). The other reasons are lack of technological knowledge, difficult to maintain HRIS, and shortage of IT expert cannot be problems because most of the responding firms (61%) have expert personnel in this area. The last problem mentioned by the respondents cost of infrastructural development would not be at all a barrier because the marginal cost of implementing HRIS could be recovered by the marginal benefits. Responses from the HR specialists from 18 organizations operating in Bangladesh are summarized at table 5.

Table 5. Frequency table on the barriers of HRIS implementation

<i>Behavioral Issues</i>	<i>No. of Companies</i>	<i>Percentage</i>
Top management reluctance	14	78%
Lack of technological knowledge	7	39%
Cost of infrastructural development	2	11%
Difficult to maintain HRIS	6	33%
Shortage of IT expert	5	28%
Organizational internal resistance	12	67%
Privacy issues for employees	13	72%
Conversion cost	10	56%
Ineffective ROI	0	0.0%

Recommendations to Ensure Effective Implementation of HRIS

Since, there are a number of barriers interrupt towards the effective implementation of HRIS, many HR specialists demand for effective measurements to overcome such problems. To investigate the ways to overcome these barriers, another question was asked to HR specialists from 18 different companies working in Bangladesh. The question was: What should organization do to ensure effective implementation of HRIS? The answer was taken based on 5-1 scale, where, 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree and lastly 1 for strongly disagree. The responses are shown in the following table:

Table 6. Frequency table on respondents' suggestions for reducing the barriers to HRIS implementation

<i>Measurements</i>	3	4	5
Ensure top management Awareness	1(0.06%)	3(17%)	14(77%)
Train HR people with IT knowledge	1(0.06%)	5(28%)	12(67%)
Ensure suitable infrastructural development	6(33%)	10(56%)	2(11%)
Ensure IT expert	3(17%)	7(39%)	8(44%)
Overcome resistance from Employees	3(17%)	5(28%)	10(56%)
Protect the privacy issues of Employees	1(11%)	4(22%)	12(67%)
Ensure security from external threats	9(50%)	7(39%)	2(11%)

From the table, it has been seen that HRIS- enabled organizations should ensure top management awareness (94%), incorporate technological knowledge to HR people (94%), protect the privacy issues of Employees (89%), ensure people having IT specialist knowledge (83%), overcome Resistance from Employees (83%), ensure suitable infrastructural development (67%), and ensure security from external threats (50%).

POLICY IMPLICATIONS

This research will provide several important implications for different stakeholders of the responding companies. They include:

1. Employees of the organization will be able to be aware about the significance of the applications of IT in HR related activities.
2. HR executives will be able to ensure the effective implementation of HRIS with the help of the results found from this research
3. This study will help the owners/ managers/ HR professionals to formulate different policies related with HR.
4. Government and Different regulatory bodies will get directions to formulate HR policies for the employees, managers and owners of the organizations from the findings of the study.
5. This research will also help the researchers to study more comprehensively about the fields of HRIS.

CONCLUSIONS

With the undoubted benefits of HRIS, organizations should opt to ensure the proper utilization of this technology by knowing the challenging and interrupting issues. Findings of this research may be helpful for the HR executives about the issues that impede the effective execution of this technology in the functions of HRM. Since this research is based on small sample size, potential researchers may have options for further research expecting more significance findings on these issues.

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Appendix-A
QUESTIONNAIRE

“Barriers to the Implementation of HRIS in Bangladesh: An Exploratory Study”

A) Personal Information:

1. Name:
2. Designation:
3. How long have you worked at that post?
4. Do you view yourself as a professional, why? *(Please tick one or more).*

No	Reasons
Yes	I am trained in HRM
	I have a HR specific degree
	I am a member of an HR association
	I have worked as a HR specialist for a very long time
	Other: please specify

1. Name of the Organization:
2. Location:
3. Nature of Operations:

B) Information about Human Resource Information System (HRIS):

1. Do you have any idea about HRIS? a) Yes b) No
2. Does your organization practice HRIS? a) Yes b) No
3. If yes, to what extend:
 - a. In all affairs of Human Resource Management (HRM).
 - b. To some extend
 - c. To a limited extend
 - d. Very little scope to use
4. What modules of HRIS does your organization presently have?
 - a. Personal Data Module
 - b. Recruitment Module
 - c. Job Experience Module
 - d. Selection Module
 - e. Training Need Assessment Module
 - f. Performance Appraisal Module
 - g. Payroll Module

- h. Career Development Module
 - i. Any other Modules.....
5. What are the barriers in implementing HRIS in HRM? (*Rank those from 9 to 1 on the basis of priority*).

<i>Behavioral Issues</i>	<i>Please Tick</i>
Top management's reluctance	
Lack of technological knowledge	
Cost of infrastructural development	
Difficult to maintain HRIS	
Shortage of IT expert	
Organizational internal resistance to implement HRIS	
Privacy issues for employees	
Conversion cost (from traditional approach to HRIS)	
Ineffective return on investment (ROI)	

6. What should organization do to ensure effective implementation of HRIS (*In each case, please tick your response using the scale 5 to 1*).

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Ensure top management Awareness					
Trained up HR with IT knowledge					
Ensure suitable infrastructural development					
Ensure IT expert					
Overcome Resistance from Employees					
Protect the privacy issues of Employees					
Ensure security from external threats					

N.B: Please provide any additional information that you think would be helpful for this study. Would you like to receive the results of the survey? (If so, please provide a means of contact)