

An Empirical Study of the Managerial Perceptions About Strategic and Administrative Advantages of HRIS (Human Resource Information System): Bangladesh Perspective.

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Abstract: Organizations in the 21st century are now seen to adopt different systems to cope up with the contemporary challenges and managing the complexities. Human Resource Information System (HRIS) is one of them that depict as an important tool of managing information resources to execute the contemporary administrative and strategic activities of Human resource management department more efficiently and effectively. As early as the mid-1990s, the focus had begun to shift to HRIS as an information resource because of their usefulness not only in HR decision making, but in strategic decision making as well. By looking at a brief evolution of the HRIS process and current capabilities, it is easier to see how a successfully implemented HRIS is moving away from a data input and storage device toward a fully operative decision-analysis tool. Various authors have advocated that the use of Human Resource Information System (HRIS) provides a lot of facilities for organizations. It facilitates the HR department to be administratively and strategically participative in achieving the organizational goals through enhancing competitiveness like improved decision making ability, decreased cost, improved communication, and decreased in time spent on day to day activities. The main objective of this study is to understand the managerial perceptions towards the effectiveness of HRIS on performing the administrative and strategic functions of HR department efficiently. In this study the researchers have conducted a survey of 30 HR Managers of different private organizations operating in Dhaka, Bangladesh. The findings reveal that, almost all managers have positive perceptions regarding the HRIS' role on performing both administrative and strategic functions efficiently and effectively, but still organizations cannot ensure its utmost utilization.

Keywords: Human Resource Information System (HRIS), Human resource department, Information resources, Private organizations.

1. Introduction

For the dynamic change in the information technology a revolution emerges and consequently, the face of the contemporary workplace is changed and systems are upgraded to deal with the different challenging workplace issues in an efficient and effective manner by introducing new techniques. Majority of the organizations have now understood the importance of information storage and retrieval. HR professionals now have an increased capacity through using HRIS not only for gathering information, but also to store and retrieve it in a timely and effective manner. HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information about an organization's human resources [1].

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This increases both the efficiency and effectiveness of human resource management functions and thus organizational strategic goal achievement [2]. In this globalized world, a department that is increasingly becoming central to the implementation of organization policy is the HR department [2]. So the HRIS is now considered an integral part of every organization [3]. More and more organizations are now developing information technology which can help the organization achieve its goals in a better manner. These information systems can then help the organization make more strategic decisions.

HRIS works as an effective tool that can be used for streamlining the administrative functions of the HR department. This can be achieved by creating an elaborate and relevant database. The data that an effective HRIS would have on individual employees can include training completed, awards received; projects participated in and finished successfully, level of education attained number of years of service, skills, competencies, etc [2]. By using this data the HR department can make a contribution towards strategy formation within an organization. With an efficient HRIS in place, the development of HR systems becomes easier [4]. HRIS will create informational efficiencies and cost savings such that HR departments can turn their attention to providing better analysis of current data and creative uses of the HRIS to provide better and more accurate data upon which to base strategic decisions [5]. Similarly, Haines and Petit write, "Thus, relieved from many routine paper handling tasks, the human resource professional can hopefully develop a service orientation and participative more fully in strategic decision making" [6].

2. Literature Review

2.1 Human Resource Information System (HRIS):

HRIS has a very humble historical origin. Although there were some exceptions, prior to World War II HR professionals (then referred to as "personnel" staff) performed basic employee record keeping as a service function with limited interaction on core business mission. Initial efforts to manage information about personnel were frequently limited to employee names and addresses, and perhaps some employment history often scribbled on 3x5 note cards [7]. Between 1945 and 1960, organizations became more aware of human capital issues and began to develop formal processes for selection and development of employees. At the same time, organizations began to recognize the importance of employees' morale on the firm's overall effectiveness. While this period of change in the profession did not result in significant changes in HRIS (although employee files did become somewhat more complex), some believe that it set the stage for an explosion of changes that began in the 1960s and 1970s [7].

During the next twenty years (1960 to 1980) HR was integrated into the core business mission and, at the same time period, governmental and regulatory reporting requirements for employees also increased significantly. The advent and widespread use of mainframe computers in corporate America corresponded with this regulatory increase and provided a technological solution to the increased analytical and record-keeping requirements imposed by growing regulation of employment and a host of new reporting requirements (e.g., affirmative action, EEO, OSHA, etc.). The Human Resource Department became one of the most important users of the costly computing systems of the day, often edging other functional areas for computer access. Although HRIS systems were computerized and grew extensively in size and

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scope during this period, they remained (for the most part) simple record-keeping systems [7]. HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information about an organization's human resources [5]. According to Kovach and colleagues, HRIS is considered as a systematic procedure for collecting, storing, maintaining, and recovering data required by an organization about their human resources, personnel activities and organizational characteristics [1]. Now the use of Human Resource Information Systems (HRIS) has been advocated as an opportunity for human resource (HR) professionals to become strategic partners with top management [5].

2.2 Strategic support of HRIS

By the time HRIS started reaching maturity from an administrative perspective, companies had begun to recognize their value in providing management with strategic data not only in recruitment and retention strategies, but also in merging HRIS data into larger-scale corporate strategy [1, 2]. The data collected from HRIS now provide management with a decision-analysis tool rather than just a robust database. Through the proper management of HR data, firms are now able to perform calculations that have effects on the business as a whole. The calculations include health-care costs per employee, pay benefits as a percentage of operating expense, cost per hire, return on training, turnover rates and costs, time required to fill certain jobs, return on human capital invested, and human value added. However, through the use of more complete and current data made available to the appropriate decision makers. Scott Engle is manager of Solutions Consulting at Ortho Biotech Products, a division of Johnson and Johnson. He views HR at Ortho Biotech as a vast storehouse of relatively static but important information. Mr. Engle believes that HRIS have not only allowed employees useful access to information, but have also enabled managers throughout the organization to tap into this storehouse and use it for a variety of administrative as well as strategic purposes. Human resources professionals see an expanding opportunity for HRIS in the future. Jim Spoor, CEO and president of Spectrum Human Resources Corporation, believes that HRIS will not benefit employees and managers, but also suppliers, consultants, benefit providers, and others, as more and more users become connected wirelessly. According to Spoor, easy access to vital information will become an integrated part of many strategic decision-making processes.

Most notably, it supports the provision of executive reports and summaries for senior management and is crucial for learning organizations that see their human resources as providing a major competitive advantage. HRIS is therefore, a medium that helps HR professionals perform their job roles more effectively [8, 9]. Consequently, HRIS is seen to facilitate managers with providing quality information for improved and effective decision-making [2]. Ideally, with an appropriate use of HRIS, less people should be needed to perform administrative tasks such as record keeping and more time would be made available for HR managers to assist by providing data on a strategic level.

In 1992 a survey by Overman [10] concluded that the potential advantages of HRIS are faster information processing, greater information accuracy, improved planning and program development, and enhanced employee communications. Some authors have proposed that 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 own personal information; and by allowing managers to access relevant information and data, conduct analysis, make decisions, and communicate with others without consulting an HR professional [11, 12]. HRIS can be implemented at three different levels, i.e. the publishing of information, the automation of transaction, and finally transforming the entire working of the HR department so it plays a more strategic role and adds more value to the organization [13].

The literature shows many previous related studies in HRIS, however, most of them were theoretical [14]. In addition, most studies were conducted in the context of developed countries' organizations. Ngai and Wat [14] conducted a survey of the implementation of HRIS in Hong Kong organizations. They found that the greatest benefits of the implementation of HRIS were the quick response and access to information that it brought, while the greatest barrier was the insufficient financial support. The study of Krishnan and Singh [15] explored the issues and barriers faced by nine Indian organizations in implementing and managing HRIS. The main HRIS problems were lack of knowledge of HR department about HRIS and lack of importance given to HR department in these organizations. Cooperation is required across various functions and divisions of the organization for proper implementation of HRIS [2].

2.3 Administrative support

In the present context of globalization, employing organizations and their environments have become increasingly complex. Managers in these organizations face growing difficulties in coping with workforces that may be spread across various countries, cultures, and political systems. Given such trends, manual HR systems management is completely inadequate [16]. On the other hand information technology has considerable potential as a tool that managers can use, both generally, and in human resource functions in particular, to increase the capabilities of the organization [17]. Those managing the human resource functions have not ignored such potential, and a widespread use of human resource information systems (HRIS) has occurred [18]. Snell, Stueber, and Lepak [19] observe that HR can meet the challenge of simultaneously becoming more strategic, flexible, cost-efficient, and customer-oriented by leveraging information technology. They point out that IT has the potential to lower administrative costs, increase productivity, speed response times, improve decision-making, and enhance customer service all at the same time. The need for cost reduction, higher quality services, and cultural change are the three main forces that have driven firms to seek IT-driven HR solutions [20]. Most organizations still appear to actuate technology merely to automate routine administrative tasks [12, 21, 22, 20]. However, research evidence also suggests that larger organizations and those with an established HR department are more likely to use their system strategically [23, 24, 22] and to help them drive decisions that will lead to success of the organization as a whole [25].

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A survey conducted in 1998 [12] shows that 60 percent of Fortune 500 companies use the HRIS to support daily human resource management (HRM) operations. Others have advocated that IT has the ability to revolutionize the HR function and to transform it into a strategic business unit [9, 1, 26].

Today the focus of HRIS is moving to the next logical step: employee self-service (ESS). In an article in HR Focus,[3] it is reported that nearly half of the companies surveyed support using self-service interfaces as a means for collecting and disseminating HR data [1]. Employee self-service, as the name implies, further reduces the administrative workload in HR departments by allowing employees to have updated access to their records. Interactive voice response (IVR) is the latest method being adopted by many firms to allow employees to update their HR information (ibid). This includes such common tasks as updating address information, planning for retirement, updating health-plan information, reporting on life events such as the birth of a child, changing beneficiaries on life insurance, and managing retirement annuities. An HRIS can have a wide range of usage from simple spread sheets to complex calculations performed easily [27]. These calculations affect the business as a whole. Such calculations include health-care costs per employee, pay benefits as a percentage of operating expense, cost per hire, return on training, turnover rates and costs, time required to fill certain jobs, return on human capital invested, and human value added.

Other current HR self-service initiatives include the use of HR portals, which provide employees with information as well as the ability to complete HR-related transactions. By using these portals, employees are able to communicate to one another via e-mail, read company news and policies, link to Web sites with relevant job-related or company related information, and perform HR calculations for retirement scenarios or cost benefit analysis for insurance options (ibid). Cisco Systems of San Jose expanded its HRIS so that employees could monitor their children in the company-operated day-care center over the Web.6

3. Objective Of The Study

The main objective of this study is to understand and analyze the managerial perceptions towards the effectiveness of HRIS on performing the administrative and strategic functions of HR department efficiently. As supplement to the achievement of the objective of this research paper, the following specific objectives are being pursued spontaneously:

1. To provide information about the major benefits and challenges of HRIS ;
2. To visualize the managerial satisfaction level with the effectiveness of HRIS process;
3. To analyze the managerial perceptions towards the impacts of HRIS on time savings, cost savings, accuracy in decision making and the achievement of strategic competitiveness of HR department ;
4. To identify the probable ways to overcome the different challenges of HRIS.

4. Methodology Of The Study

The main objective of this study is to understand and analyze the managerial perceptions towards effectiveness of HRIS’ on the administrative and strategic functions of HR department effectively. In order to achieve the research objectives, the target group of this study was those employees who were serving as human resource managers of different leading private organizations in Bangladesh. This study was conducted in total 30 HR professionals. This sample size has been selected through convenient sampling method. This study is based on both primary and secondary data. The data used in this research is qualitative and specifically gathered by the authors through comprehensive interview for this study. However, the theoretical part of this study is formalized from secondary information collected from different books, journals and publications of thesis. A structured questionnaire has been used for collecting primary data by using a five point Likert scale, where 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree. Finally, the researchers have used Statistical Package for Social Science (SPSS), Microsoft Excel and scientific calculator to analyze and interpret the data. The items on the survey were generated based upon suggestions developed from review of the previous literature in general, and [5] in regard to the satisfaction to HRIS, [3, 28] in particular in regard to costs.

5. Analysis Of The Findings

This research was exploratory and primarily descriptive in nature. We had a relatively small sample size, as mentioned above. Therefore, we used frequency tables to measure the percentage of favorable responses to a series of questions assessing HR managers’ perceptions of HRIS. The results of the survey are contained in Tables 1 through 7. The percentages expressed are the percentage of respondents for each item who either agreed or strongly agreed with the statement. The items are divided into different categories: table 1, 2 and 3 represent the effectiveness of the HRIS process; table 4 and 5 show the efficiency gained from the HRIS process; table 6 shows the strategic advantages of HRIS and table 7 shows the limitations of HRIS and suggestions to overcome.

5.1 Effectiveness Of HRIS On HR Routine Functions:

With regard to HRIS contribution in streamlining various HR routine functions (Table 1), about 90% respondents agreed that administrative processes such as decrease in paperwork, forecasting staffing need and data maintenance had indeed improved. Furthermore, 75% of the employees surveyed agreed that data input and recruitment process had been made more effective. On the question of HRIS having a considerable impact on the training process, the response in favor of it was 48%.

Table 1: Effectiveness of HRIS on HR routine functions

HR Process Items	% Agreed
Our HRIS has improved the recruitment process.	75.0
Our HRIS has improved the training process.	48.0
Our HRIS has improved the data input process.	75.0
Our HRIS has improved the data maintenance process.	87.5
Our HRIS has helped with forecasting staffing needs.	86.5
Our HRIS has decreased paper work.	88.5

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5.2 Effectiveness of HRIS on communicative functions:

The adequate storage and timely retrieval of information is a hallmark of an effective IT system (table 2). 75% of the respondents believed that HRIS indeed provided useful information, while a greater number (88.5%) of the respondents believed that the information received through HRIS added value. Whereas an identical percentage (86.5%) felt that generated information was being shared with the top management.

Table 2: Effectiveness of HRIS on communicative functions

Information Effects Items	% Agreed
Our HRIS has improved the ability to disseminate information.	39.5
Our HRIS has provided increased levels of useful information.	75.0
The information generated from our HRIS is shared with top administrators.	86.5
The information generated from our HRIS has increased coordination between HR department and top administrators.	62.5
The information generated from our HRIS has added value to the institution.	88.5

5.3 Effectiveness of HRIS on Decision-Making:

Relating to HRIS helping management in making better decisions (table 3), two third of the total respondents believed that HRIS contributed to making decisions more effective, and almost the same number believed that HRIS played a significant role in the selection of better candidates or improving training and development of the staff. Even a lower percentage (55%) said that hiring decisions were made using information available through HRIS. This would indicate that HRIS was viewed rather favorably as an administrative tool but they cannot ensure the maximum utilization of the HRIS system because of some limitations which are given below in the table 7.

Table 3: Effectiveness of HRIS on Decision-Making

Decision-Making Items	% Agreed
The information generated from our HRIS helps our institution decide on employee raises.	36.5
The information generated from our HRIS helps our institution to make more effective promotion decisions.	40.0
The information generated from our HRIS helps our institution decide when to hire.	55.0
The information generated from our HRIS helps our institution make better decisions in choosing better people.	35.5
The information generated from our HRIS helps our institution decid when training and skill development are necessary.	35.0

5.4 Efficiency gained from HRIS through saving time:

Time saving is one of the barometers against which the efficiency of any IT system can be gauged (table 3). This study showed that about 80% of the respondents believed that the system had a positive impact on some administrative functions such as time spent on recruiting, routine staff decisions, processing of paper work, and error correction. However, only half believed that it had actually helped in improving the communication of information within the organization. And about one third of the surveyed employees believed that HRIS decreased the time spent on training.

Table 4: Efficiency gained from HRIS through saving time

Time Savings Items	% Agreed
Our HRIS has decreased the time spent on recruiting.	76.0
Our HRIS has decreased the time spent on training.	37.5
Our HRIS has decreased the time spent on making staff decisions.	76.5
Our HRIS has decreased the time spent on inputting data.	62.5
Our HRIS has decreased the time spent on communicating information within our institution.	50.0
Our HRIS has decreased the time spent on processing paper work.	77.0
Our HRIS has decreased the time spent on correcting errors.	62.5

5.5 Efficiency gained from HRIS through saving cost:

When it came to the actual cost saving from the HRIS in the organization (table 4), the results had similarity to previous researches, such as the one carried out by Beadles [5]. The beliefs of the respondents regarding cost savings were: Only 35.5% about cost of hiring, 37.5% about the recruitment expenses and 36.5% regarding to the salary of HR staff. Even a lower percentage (11.5%) of respondents thought that training expenses were reduced; however, 64.5% of the respondents believed that administrative tasks such as data input expenses did come down.

Cost Savings Items	% Agreed
Our HRIS has decreased cost per hire.	35.5
Our HRIS has decreased training expenses.	11.5
Our HRIS has decreased recruiting expenses.	37.5
Our HRIS has decreased data input expense.	64.5
Our HRIS has decreased the overall HR staff's salary expense.	36.5

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5.6 Strategic advantages of HRIS:

In terms of whether HRIS has enhanced the strategic role of the HR department (table 7), 87.5% respondents believed that HRIS increased the importance of HR department and made it a strategic partner, whereas only 37.5% believed that HRIS gave a competitive edge to the institution or was effective in helping the organization meet its strategic goals. However, 62.5% did believe that HRIS improved the strategic decision-making of the top administrators.

Table 6: Strategic advantages of HRIS

Strategic Impact and Role of HR Items	% Agreed
Our HRIS has made the HR department more important to the institution.	87.5
Overall our administration thinks that HRIS is effective in meeting strategic goals.	37.5
The information generated from our HRIS has improved the strategic decision making of top administrators.	62.5
The information generated from our HRIS has made HR a more strategic partner in the institution.	87.5
Our HRIS has promoted our institution's competitive advantage.	37.5

5.7 Limitations and suggestions:

The respondents of this research were the HR managers who always work with the HRIS process in their organizations argue about the following limitations and probable suggestions of the problems:

Table 7: Limitations and suggestions

Limitations	% Agreed
Lack of proper implementation.	45.0
Insufficient knowledge of the employees to operate the system.	76.5
Lack of sufficient investment.	62.5
Lack of infrastructural facilities.	87.5
Probable suggestions	% Agreed
To provide necessary Training for the employees to operate the system	87.5

Sufficient amount of investment is needed to install and operate the system	70.0
Proper attention of the top-level managers/administrators to implement the system properly	42.5

6. Recommendations

The research was limited to private sector only. Because the public sector corporations are using the traditional paperwork to store the human resources information except a few. The data was only collected from HR managers. Professional staff members in lower ranks could also be included in future studies as they might have a different view on the use and impacts of HRIS. The public organizations and the academic institutions using HRIS can be part of future research studies.

From the research result it is seen that a lot of advantages organizations had using the HRIS though they could not ensure the maximum utilization of it because of some limitations. The main of them may be the poor infrastructure in information technology sector in Bangladesh. The proper utilization of HRIS may offer the maximum efficiency and effectiveness in the following aspects:

- Low cost of recruitment;
- Low cost of hiring;
- Successful selection of the right employees;
- Low cost of training;
- Effective training and development program;
- Maximum level of coordination among various departments and improved communication;
- Effective and accurate decision-making and implementation.

It is found that the maximum utilization of the HRIS could not be ensured because of the lack of sufficient knowledge of the employees working on it (Table 7). It can be removed by clarifying the benefits of HRIS in the organization and making awareness to them through a comprehensive training and advertisement program. Another challenge of HRIS is the information trust that is Employees are highly concerned about the security of their personal information remains an important company and public policy issue [29]. A better employee relation and trust upon the organization may overcome this challenge. Among the participants only 11.5% believed that the HRIS reduced the training cost. The main causes of it may be The HIRS is not mature enough to have the capacity of properly incorporating the training needs of employees, The employees are not fully trained about the usage of HRIS as a tool to increase the efficiency of the training process, The training needs assessment forms have not been properly developed, Since training has more strategic functions

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comparing to administrative one it is being ignored. A great effort of the HRD (human resource department) to bring the awareness and sincerity of the employees to use HRIS in every aspect may remove this problem.

The extent to which HRIS can provide a competitive advantage to any organization is contingent on the role of the HR department within that organization. In institutions where HR is mostly confined to a personnel or employee advocate role, it is difficult to see how even the most effective HRIS can contribute towards increasing the competitive advantage of the organization [2]. The information that is generated might not be user-friendly and that might be the reason why information system is not being properly utilized to its fullest potential. Another reason can be that people are not encouraged to read the reports containing the competitive information and then make tactical decisions, based on the information provided. Overall, more needs to be done and further research needs to be conducted to discover how HRIS can be better utilized to strategically benefit the entire organization.

7. Conclusion

The result supports the finding that HRIS is mostly being employed as an administrative tool more than a strategic one as assumed by the top level administrators (table 6). The holistic view of the role that HRIS can play in improving the efficiency and integration of HR department into a more strategic role was missing. The respondents could not establish a direct link between HRIS and its impact on their routine work. There was a lack of clarity as to the exact value the HRIS system would add to the organization. This relates back to the earlier literature, that the benefits of HRIS are difficult to quantify, and cannot be displayed in monetary terms. Neither cost saving, strong communication nor effective recruitment decisions were linked directly to HRIS.

Frequently mentioned by the respondents was the need for more training on the system. They believed that additional and better training would lead to better results. Several of the responses also reinforced the notion that the system was being underutilized and that they were not taking full advantage of the capabilities. They believed that other applications were needed and that the system could be more effectively utilized with the addition of some other features that were not currently part of the system. So, the potential contributions of HRIS are recognized, but further advances are need before the potential can be realized. So even though HRIS appears to have tremendous promise it has not been fully utilized according to its potential. However, more research should be done in other sectors to see whether these finding are similar in different industries.

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