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THE ROLE OF INFORMATION TECHNOLOGY ON STRATEGIC HRM: TRANSFORMATION OF TRADITIONAL MINDSET

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Abstract: *The academic community and organizations practicing proper human resource management has experienced the transformation of conventional human resource management into a more strategy oriented, knowledge based human resource management termed as strategic human resource management. At present, HRM is not merely a department but also an inevitable strategic partner of the organizations. Information played a key role in this journey of this transformation with the support of technology and termed as HRIS. The management and use of HRIS have enriched the collection, store, utilization and sharing of information resources. The paper highlights the contribution of HRIS towards SHRM and argues that its appropriate management can add the value to SHRM. In addition, the paper also points out a few limitations of HRIS and how the future workplaces might look like. The paper is expected to contribute to the existing literature through some new directional and contributive discussions.*

Key words: *Information technology, HRIS, Strategic HRM, Organizations, Strategy.*

1. INTRODUCTION

The modern organizations have to cope up with constant and ever-changing challenges created by rapidly changing markets, ever increasing customer expectations, pressure to reduce lead time, adaptation with new technology

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and so many other issues. In this competitive realism, the organs of organizations, particularly, HRM has a more important role to play through innovative and competitive workforce. In reply to such challenges and competition, HR professionals should identify and grab the opportunities and neutralize the threats by proper analysis of all factors of business and industry environments in order to design and redesign the procedures and practices of employee activities consistent with organizational tasks and objectives. Recently, organizations are forced to adopt new techniques and logics that have outdated the conventional thinking mindset and practices. It is crucial for the organizations to develop and implement effective HR strategies and policies to build an innovative, competitive and intelligent pool of human resources as the success of a corporate firm lies on how efficiently it is using its quality and talented employees with optimum satisfaction (Hosain, 2015).

As a gift of modern science and technology, information system is playing a vital role in increasing SHRM functions by aiding to deliver, store and disseminate essential information for the decision makers. Such contributions of information management are helping SHRM to conduct more effective recruitment & selection, efficient internal and external communication, employee participation and timely and cost effective decision making skills for managers. It is imperative for the organizations to relate information technology with HRM interconnecting business strategy and adaptation to rapid changing customer needs and technological advancement. Some authors termed such interconnection as electronic human resource management or E-HRM (Hosain & Rahman, 2016; Hossain & Islam, 2015). At present, HRM departments can no longer afford in confining themselves to monotonous file or paperwork, rather with the invention and advancement of IT, the HRM jobs have become sound, efficient, faster and cost saving (Hosain, 2017). In this standpoint, the combination between information system (IS) and human resource management has taken the new form and name as human resource information system (HRIS) that has already been accepted as one of the key tools in electronic human resource management (E-HRM).

From the inception business and trade, information played a crucial role. However, in recent years, with the advent of technology, information has become an inevitable part of modern organizations irrespective of their business interests. HRM as the vital part of organizations is mostly dependent on information than ever, the reason for introduction and adaption of a new system called HRIS. HRIS is bridging the relationship between HRM and IT (Tannenbaum, 1990). It is a system especially designed to provide information related to HR decisions (routine & strategic) to HR managers facilitating in effective formulation and implementation of required decisions on time. HRIS is an integrated system that lets the users to keep track of up-

to-date information stored in a database or often in inter-connected databases (Silva & Lima, 2018).

Information system has helped the organizations to increase the competitiveness through easy and timely utilization of vital information that would not be possible otherwise. The paper argues that all the departments of an organization, particularly; HRM must integrate with IT to recognize the rapid changes in corporate and industry environment to gain competitive advantage.

The paper discusses the necessity of information in different areas of strategic HR decision making process with its limitations. Further, some action recommendations will be provided at the end.

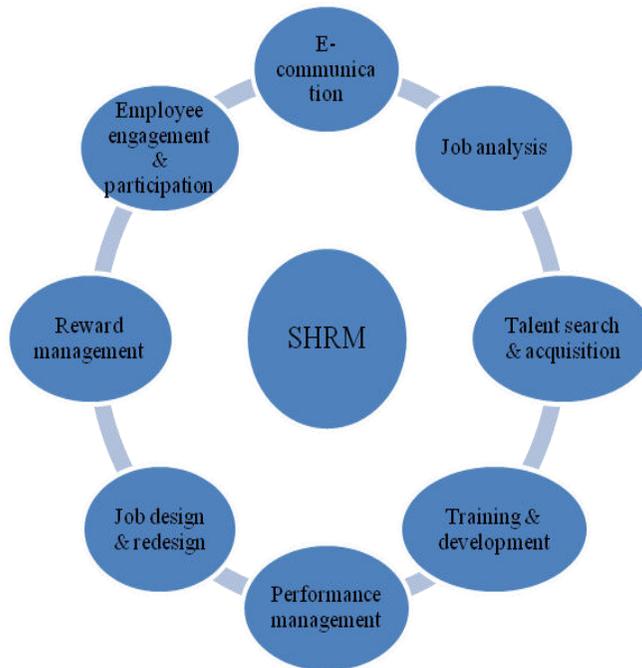
2. LITERATURE REVIEW

As it is well known, organizations need up-to-date information regarding its internal as well as industry and external environment to stay competitive. Therefore, all the organizations, large or small, should create a system that helps them to collect, store, manipulate, analyze and distribute necessary information when required (Silva & Lima, 2018). HRM plays a key role in organizational strategic decision formulation and implementation. Keeping this in mind, the modern smart organizations developed HRIS that can gather, process and flow information to and from the users (Boateng, 2007). The following paragraphs will discuss the components of SHRM and HRIS.

Components of modern SHRM

There are numerous functions or components of modern, strategic, competency based HRM. This paper will discuss six most important and vital areas of SHRM that are linked to company strategic performance. The major components of SHRM have been presented through figure 1.

Figure 1. Major components of SHRM



Job analysis

Information oriented job analysis is one type of HRIS software that assists HR professionals to conduct job analysis actions. Job analysis through HRIS, in general, is the collection of information from stakeholders using an online questionnaire. The software generates an analytical result called job description for each job that was surveyed through that online questionnaire. Later, these job descriptions are used as the basis of job evaluation (Tesi, 2010).

Talent search and acquisition

Organizations need to search, attract and acquire talented employees that serve as the basis of competitive advantage for the organizations. At present, the HRM professionals are investing various techniques and strategies to attract talented future employees with the help of information systems such as online advertisement, online and social media recruitment.

Training and development

Training, learning and development process include programs, workshops, seminars, sessions and presentations that develop and help employees to acquire knowledge in managerial skills. The training content should be

developed to increase competencies and skills with the help of extensive online and web-based training modules and tools. Training supervisors should use more on online course materials and case studies rather than printed handouts, books and brochures to reduce the use of traditional methods like paper exam, books etc.

Performance management

Performance management is the practice of evaluating the performance of individuals or departments on regular basis in order to improve future performance and to increase potential future career advancement. Performance appraisal is concerned with benchmark is a set of specific task to define and evaluate the current performance against pre-set standard. This process requires input and output such as remuneration, pay rise, level of expectation, promotional policy, managerial planning and so on (Abang et al., 2009). A well organized, effective and efficient performance appraisal system can provide individual performance data such as due appraisal date, scores, scale of measurement etc with the help of HRIS.

Job design and redesign

Job design and redesign are the process of work arrangement (or re-arrangement) aimed at reducing or overcoming job dissatisfaction and employee alienation arising from repetitive and mechanistic tasks. Through job design, organizations try to raise productivity levels by offering non-monetary rewards such as greater satisfaction from a sense of personal achievement in meeting the increased challenge and responsibility of one's work. Job enlargement, job enrichment, job rotation, and job simplification are the various techniques used in a job design exercise (businessdictionary.com). It is a useful tool used in order to meet the needs of the employees and to satisfy the interests of the organization. Three main job design techniques are job rotation, job enlargement and job enrichment (Belias & Sklikas, 2013).

Reward management

Reward management consists of rewards and incentives that employees get based on their work their performance, new contribution and added value to their organizations (Dorel & Bradic-Martinovic, 2011). Such rewards for the employee can also be divided into material incentives and non-material incentives. Material incentive is mainly economic gain such as salary, bonus and other monetary rewards. On the hand, non-material incentive is mainly social acceptance like recognition, status, enjoyable work assignments etc. Material and non-material incentives can meet the different needs of

employees in technological innovation activities (Hosain, 2014). HRIS can provide information such as salary processing, calculation of wage components, benefits and pension calculation of an employee, cost-benefit analysis, salary comparisons that help HR managers to take important decisions regarding rewards.

Employee engagement and participation

Employees need to engage themselves and participate in important decisions in which they are involved. As a part of the organization, employees should be encouraged in active participation in making decisions and provide innovative ideas. HRIS can aid regarding this through online communication and sharing the information to each other.

E-communication

Communication can be defined as the both regulatory intra-organizational and inter-organizational contacts to coordinate various aspects of organizational functions and changes (Casico, 2006). In regard of electronic communication, HRIS involves a vital role to deliver all the necessary information from the stakeholders and vice versa (Mayfield et al., 2003).

Human Resource Information System (HRIS)

We live in the age of information. In fact, the people are continuously using information in their everyday lives such as price of product, interest rates on the bank, GDP and growth rate, house rent, salary range and so on. Organizations are especially dependent on information for their routine and strategic decision making and implementation process. Therefore, organizations need to develop and maintain a system that can accumulate, store, utilize and disseminate information when and where necessary. As a very crucial part of any organization, HRM need information regarding its employees and labor market now-a-days ever than before. There is an increasing conversation as to how this unavoidable technique and practice can be incorporated in all the aspects of an organization that resulted in the creation of four magic words Human Resource Information System (HRIS). HRIS can be defined as a method that is used to attain, store, control, recover and distribute relevant information regarding the organizational human resources (Thite et al., 2012). The inevitability and application of HRIS are so huge and popular that most of the firms irrespective of size, nature of business, age, ownership and geographical location are trying to adapt and utilize the benefits of it. It is well recognized that proper HR report and related information are purely essential to take the right decision regarding management and organizational strategic policies. Consequently, preparing,

storing and maintaining the HR associated data are now effectively executed with the help of HRIS.

HRIS applications permit users to store and track all types of data that are correlated to HR (Dorel & Bradic-Martinovic, 2011). A study conducted by Dorel & Bradic-Martinovic (2011), argue that HRM was primarily focused on collect and store personal data (records) of each employee, handle salaries, benefits, vacations, etc. However, HR functions have been developed and expanded as vital part of management. The three major functional components of HRIS are:

Figure 2. The HRIS methodology



At the first stage, the necessary data are entered into the system whereas maintenance stage store and protects those data. Finally, the utilization stage produces output, make necessary calculations and make the data processed as necessary information to the appropriate users. Thus, in HRIS, it is important to note that it is not just an automated process, program or software; rather it provides information to the users (Boateng, 2007).

According to Karikari et al. (2005), there are three dimensions towards HRM. They are identified as:

- **Operational HRIS:** Supplies information to assist routine and repetitive HRM decisions (workforce regulations, payroll, purchase)
- **Tactical HRIS:** Supplies information to support decisions concerning the allocation of resources (recruitment & selection, job analysis, compensation plan)
- **Strategic HRIS:** Supplied information making strategic HRM decisions (manpower planning, performance management planning)

Contribution of HRIS towards SHRM

As the business has become more complicated and the competition and customer expectation has increased than ever before, the managers need to invest more time in planning rather than in monotonous, routine and repetitive jobs. In such cases, information can help tremendously to the

managers especially in decision making level. This is especially true in case of HRM, where the managers have to deal with complex human and paper related tasks everyday. In this section of the paper, the contributions of HRIS toward SHRM have been discussed. The discussions have been highlighted on table-1:

Table 1. Contributions of HRIS towards SHRM

Components of SHRM	Contributions of HRIS
Job analysis	<ul style="list-style-type: none"> - Searches and provides information regarding present manpower - Analysis of manpower required - Analysis of investment required on workforce - Assists decision regarding size of workforce
Talent search and acquisition	<ul style="list-style-type: none"> - Searching talent through online - Assists in recruitment planning - Assists in creating company brand value through corporate website access by the candidates
Training and development	<ul style="list-style-type: none"> - Providing information regarding training need analysis - Assists in formulating training plan - Assists managers in making development program
Performance management	<ul style="list-style-type: none"> - Providing performance indicator information for each employee - Helping in keeping employee performance record - Minimizing time and cost for performance appraisal process
Job design and redesign	<ul style="list-style-type: none"> - Collection of job information - Collection of job feedback from the employees - Assists managers in redesigning jobs if necessary
Reward management	<ul style="list-style-type: none"> - Assists in creating compensation & benefits database - Assists in creating performance based rewards with the help of information stored - Assists managers in formulating reward system
Employee engagement and participation	<ul style="list-style-type: none"> - Collets employee feedback regarding participation satisfaction - Helps managers to collect opinions from employees regarding empowerment, participation and engagement - Helps managers to formulate employee motivation plan by providing information
E-communication	<ul style="list-style-type: none"> - Assists in inter and intra organizational communication - Stores communication records - Assists in faster and effective decision making process

In short, HRIS contributes in numerous ways to make SHRM function smooth, effective and efficient by reducing time lapse, gap, cost and confusion among the employees. It can act as the bridge between the

technology and HRM functions. However, it should be noted that HRIS is a gift of technology to the HR managers that are mostly responsible for the effective, timely and efficient utilization of this gift.

HRIS: A few limitations

Although HRIS is becoming very popular because of its ease of use, timeliness and cost effectiveness, there are limitations of it. Although, the limitations are not so many, still they can restrict or discourage the use of HRIS. A few notable limitations of HRIS are discussed below:

- **Investment in initial stage:** As a system, HRIS needs to be bought or developed and installed in organizational settings. Such initiatives usually require heavy investment at the initial stage. For this reason, many organizations, especially middle and smaller ones are not interested in using this integrated system.
- **Reluctance of management:** Sometimes, especially the managements and the owners do not want to implement and use HRIS as they think that information will not be kept secret.
- **Fear of change:** As a basic human nature, most people are afraid of change. HRIS brings a tremendous change in organizations that can make many employees afraid. The barriers to user acceptance of the HRIS and the consequent underestimation of the importance of change management can prolong the use and implementation of HRIS (Jahan, 2014).
- **Fear of losing jobs:** Some employee especially at the lower level might be afraid of losing jobs because of the use and implementation of HRIS. It is the duty of the organization to clarify that no one is going to lose the job, rather, information system will help to make the lives of employee easier and efficient.

It should be noted that the limitations of HRIS are created from the user side, not from the system itself. Therefore, comparing the benefits with its limitations, organizations should adopt this technological reward as their part of core system.

The role of HR professionals: Action recommendations

As a core department of any organization, HRM provides the guidance to its employees. HRIS is a vital tool that reduces the manual conventional tasks in a substantial manner. The Society for Human Resource Management (SHRM, 2008) refers that HR professionals should identify that consolidating HRIS with core organizational structure is a big mission and a major change for the organization. Some employees (staff and even management) will resist such change and it is imperative to be prepared earlier to deal with the resistance.

HR professionals must support the change and facilitate the communication (SHRM, 2008). They are suggested to do these in following manners:

- Anticipate that some individuals may react disapprovingly to change.
- Accept the fact of resistance and find ways to deal with it.
- Demonstrate commitment and a positive attitude toward the change.
- Involve all employees in the process.
- Ensure that the top management is noticeable and compassionate.
- Remind that change is a process and successful change takes time.
- Compensate the change with some other motivational incentives.
- Communicate with employees and management frequently.

The organizations (and managers) should not forget the fact that change, most of the times, are necessary. As like every other forces in business, the HRM functions has also evident dramatic changes. The competitive success is mostly dependent upon the application of knowledge, information and technology. At present, the HR professionals are now dedicated to employ themselves in more significant and strategic roles becoming strategic business partners relying on the usage of HRIS in their workplaces (Haines & Lafleur, 2008). HRIS can easily lead to immense changes in the operation of HRM and other functions in organizations (Kavanagh et al., 2012). In this case, HR professionals need to understand that a bigger change in organization takes time to be successful.

The future organizations: Technological perspective

The future will bring many changes in our lifestyle as well our working environment. Information technology will probably change the shape of how we are doing things today. The researchers and practitioner urge us to listen to the future needs of technology. They want to be attentive to the fact that the successful organizations are those that make an efficient leverage between the technology and organizational HR strategy (Kavanagh et al., 2012). Regarding the perspective of information system, HR professionals need to understand and recognize that (Silva & Lima, 2018):

- the future technology will be shared and interconnected.
- organizations will use more and more balanced HR scorecards and workforce analytics.
- there will be increased use of automation and online methodical processing.
- it will be possible to access to accurate real-time information due to the advancement in IT and other communication tools.
- Information security a top priority to the individuals as well organizations.
- Employees will be able to work from home or anywhere, any time and with any device.

- Information in an organization will be streamlined and accessible.

3. CONCLUSION

As the information has a substantial influence on organizations, there is greater need from the organizational counterpart to take the advantage from such change. Although, the researchers are still investigating in this area, most of them are agreed to the point that information cannot be ignored as the part of modern science and technology. Indeed, HRIS has become an inevitable organ for many organizations around the world. Although, it has some limitations, its benefits are immense. In order to achieve better quality of work life, faster and efficient exchange of information and most importantly, to embrace the future organizational needs, HR managers must find out ways how to integrate with information technology and make the most of it so that they can achieve strategic competitive advantage through the maximum utilization human resources.

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