

DOES HRIS INCREASES THE ORGANIZATIONAL EFFICIENCY THROUGH EMPLOYEES' PERFORMANCE: THEORETICAL PERSPECTIVE

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Abstract. Organizations have to constantly changing due to the changes around their internal and external environment in order to compete and sustain the business in the competitive conditions of industries. The important factor that can manage this change in the most efficient way is Strategic Human Resources Management, which is one of the human resources and key strategic management processes of the organizations. Information and qualified human resources and related information which are recognized as fundamental and strategic production factors for businesses and organizations in the Big Data age are obtained, produced, arranged, shared and used in strategic management processes through information technologies. This study reviews factors such as growing importance of information and information management systems used to process such information, and its spreading usage in human resources management and increasing efficiency of human resources management information in strategic management processes; and focuses on their impacts on management understanding and human resources management process in big data age. The impacts of emerging new conditions on employee performance are particularly investigated in terms of the usage of Human Resources Information Systems (HRIS). This study recommended that organizations should focus on human resource information system applications in the work environment to achieve positive outcome and maximize employees as well as organizational performance at all levels of operations.

Keywords: Human Resource Information System (HRIS), Employee Performance, Information Management, Organizational Efficiency

1 Introduction

With advent development of Information Communication Technology (ICT) and its implementation in businesses creates business process more dynamic and faster, because of speed and accuracy in IT, nearly all business (medium or small) is adopting and taking help of IT to make their business more efficient, effective and to achieve the mission and goals of business organization. Due to advancement in technology, there has been a considerable increase in the number of organizations gathering, storing, and analyzing information through the use of a software which is HRIS (Human Resources Information System). HRIS is a big innovation in the world of Human Resources. The change in technology not only increases the quality of employee information but also have a strong effect on the overall effectiveness of the organization. For example; HRIS handles many of the administrative tasks that, though critical, slow down productivity when performed manually. The use of HRIS saves time and

let HR focus on stuff computers can't, such as team building activities, team engagement, work-life balance, and other employees benefit programs to encourage employee motivation and commitment towards the organization. By fully integrating a HRIS into the structure of a workforce, employee engagement and company culture may be improved. Employee self-service often inspires greater employee empowerment and a delegation of tasks that help “flatten” the structure. If HRIS are used properly, employee expectations are clarified, employees are put in-charge of their own development, and the communication and collaboration improve throughout the workplace. By making the HRIS a part of the organization, the HR Department can transform itself to be a strategic business partner which will overall benefit the organization by improving its effectiveness.

HRIS is defined as an “integrated system used to gather, store and analyze information regarding an organization’s human resources comprising of databases, computer applications, hardware and software necessary to collect, record, store, manage, deliver, present and manipulate data for human resources function” [1]. An HRIS can perform a number of functions from the simple storage and communication of information, to more complex transactions. In HR planning process it is easier to follow workforce gaps, the quantity and quality of the labour force and to plan future workforce requirements with the help of HR knowledge systems [2]. HRIS can support long range planning with information for labour force planning and supply and demand forecast; staffing with information on equal employment, separations and applicant qualifications; and development with information on training programs, salary forecasts, pay budgets and employee relations with information on contract negotiations and employee assistance needs. Risk and security management is another crucial function which can be derived by HRIS by following private and highly sensitive individual data and multiplatform security aspects which are perhaps the most serious factors that need to be taken into consideration. HRIS also provides information essential to assist the functional manager in decision making that will be an add on in the realization of the unit’s strategic goals and objectives.

Organizations need an effective Management Information System (MIS) compliant with business processes and human resources in particular, for a rapid and timely performance of decision-making, planning, structuring (organizing) and supervision operations by the managers. MIS’ interface with human resources is the subsystem Human Resources Information System (HRIS). This is a system established for a regular acquisition, storage and processing of the information related with the employees and business processes, and sharing the resulting outcomes with managers and employees. Information and communication technologies are intensively utilized in composition of such systems. The effectiveness of this system depends, apart from the effective use by managers and employees through suitable software and hardware, on the degree by which the system conveys the information interpreted with metainformation to the decision-making organs rapidly, articulately, fully, accurately and uninterruptedly. Although employees’ awareness that they are monitored by information-based decision support systems in the work-related processes carries particular importance in terms of their improvement and success. The aim of review of HRIS is to improve the organization’s sustainable performance through adopting the new technology. With this brief introduction, this paper introduces the methodology adopted in this review process and then deals with literature review on HRIS and firm’s performance, next section provides a brief discussion and final section presents the conclusion.

2 Methodology

In order to achieve the stated review objective, a systematic review of literature was conducted by using an archival method. This paper employs a methodology to review the articles cited in the databases Sage, ScienceDirect, Taylor and Francis Online, Wiley Online Library, Techno version, JSTOR and Emerald with 'Human Resource Information System' and Organizational Performance as the topics. Hence the study for this paper becomes desk research rather than a survey or any other mode of researching.

3 Literature Review on HRIS

System and their trust in such a system would boost their organizational commitment and meticulousness towards the work. Today's information age, information and qualified intellectual capital information are as an important part of information, it constitutes a strategic and significant resource for the businesses. In particular, rapidly shortening product life cycles and developing technology have increased the importance of the human element that seeks and finds information and commits it to production in an effective way. In this regard, the term employee in information age which is also called digital revolution wave has been referred to as "information worker" in the new terminology, and some management scientists began to adopt the use of the term netizen instead of citizen. In the information age, businesses on one hand work on organizational efficiency and productivity while on the other hand they struggle to achieve an important strategic goal such as keeping under control employee performance which they will employ and carry on using efficiently. In this sense, a large majority of the medium and large-scale businesses have Human Resources Management System (HRIS) compliant with Management Information System (MIS), which allows its use on different structures and levels according to the structure and strategic management understanding of the business. Intensive use of information technologies in the businesses have further increased the importance of human resources function in strategic decision-making processes, and this unfolded the requirement of conducting a right planning and design for aligning information technologies with business management functions and employees' competency in technology use.

In the scope of the study, theoretical information is provided on the type of information required for Human Resources Information System database, and the study mainly attempts to identify the degree of relationship between HR operations via information systems and performance appraisal and employee performance in businesses taking into account the impacts of HRIS on employee performance and organizational performance. More precisely, the main objective of this study is to explore the impact of the usage of human resources information systems on employee performance which leads to organizational performance.

4 HRIS and Employee Performance

Since the period of classical management understanding till information age, human resources and their management have been one of the fundamental and indispensable resources and strategic operation elements of organizations which they had to use to reach their goals and to be supra competitive. The concept includes all employees from the top management to the lowest level employees, as well as involving the potential labor available in the external environment of the organization. HRM is a process which involves effective use of human

resources in actualization of organization's strategic goals and meeting individual needs of the employees [3]. Today's HRM practices are considered as a management understanding which renders organization's other processes more functional, and boosts efficiency and profitability more through qualified labor, and proves effective in achieving competitive advantage. And also, its affects organization's prestige and success in the internal and external environment.

Information Management, MIS and HRIS are recent developments in technology have made it possible to have a real-time, information-based and self-serving interactive work environment [4]. These developments show that information is now a part of organization capital with concepts like big data, cloud computing and internet of things, and define the dynamics of information economy which is heavily discussed in the recent times. The information is strategic importance and power as a potential future capital investment and most valuable asset of firms. Organizations try to shape their information management works around this strategy. Information management is defined as three basic information operations: acquisition, storage and transfer [5]. Basically, information management is an integrated and systematic approach associated with determining, managing and sharing all information assets including labor's common knowledge and skills with a view to reaching organization's mission and goals. The goal of information management is to manage the information which is crucial and useful for the organization. Organizational efficiency begins to increase when the right information reaches the right place at the right time [6].

The computational environments where acquired data are compiled, organized, systemized, shared and integrated according to needs are called "information systems". Information systems are used in organizations for information management, and they are addressed in terms of three systems, namely Operational Process Systems (OPS), Management Information Systems (MIS) and Expert Systems. MIS has subsystems such as Decision Support Systems (DSS) and Human Resources Information System (HRIS). MIS which transforms the raw data from within and outside of the organization to formatted and structured useful information plays a more effective and important role in decision support process by conveying such to DSS subsystem for a solution to complicated management problems and more effective and efficient decision-making [7]. Therefore, MIS is defined as an integrated system supporting an effective decision-making process or providing the information required for supervision of organizational operations. Recently, MIS automation has been increasingly used. These automatic systems have yielded significant positive transformation and change in managerial decision-making of the organizations [7]. HRIS, as a subsystem of MIS, is an information system approach organized for measuring and assessing current human resources operations with regard to production (outcomes) in the post-industrial age. HRM's becoming gradually more complex and data-intensive in its use in execution of all operations, this system has helped HR managers and professionals to take more rapid, accurate and effective feedbacks and decisions.

An information technology application in HRM has been continuously increasing rapidly from the beginning of 1990. Developments in information technology have changed the HR functions within organizations. Now-a-days, many and several organizations have come under the services of an HRIS to support HR department in performing main HR functions, promote administrative efficiency, enhancing decision making, speeding up information sharing [8]. While, reference [9] noted that reducing workload by minimizing administrative tasks .one of the more advantages of HRIS it's used it as a tool to achieve greater administrative efficiency by adding values in the department of human resources. In extent, HRIS allows HR managers to take part in strategic decisions making by being informed with real time relevant information about company's human talented [8]. HRIS provides management with strategic information not only in employment and retention strategies, but also in merging HRIS data into large-scale company's strategy. The data collected from HRIS provides management with decision-making tool.

With increased use of HRIS, the job of Human Resources professionals has become easier, and thus they had opportunity to spare more time on in-house consulting activities. With a further approach, it is argued that human resources management professionals add value to the organizations while at the same time strengthening their influence and status in the organization [10]. In order for HRIS to be successful, it must provide managers and users required and sufficient information in various stages such as keeping, planning, controlling and managing the data related with human resources [2]. Such information supplied by Human Resources Information System must bear specific features such as updatability, coming from right source through right methods, completeness and accuracy, and being analyzed and rapidly submitted to the users through right methods suitably for the purpose. Cited as [11] believes that when HR functions are loaded into computers within a HRIS, more rapid decision-making is achieved in development, planning and management of HR thanks to much easier storing, updating, classifying and analyzing of the data [11]. One of the major benefits offered by HRIS is its contribution to the efficiency of control functions.

5 HRIS and Organizational Efficiency

The current literature on HRIS shows that these systems have varying impacts on HR across organizations but offers little explanation about the variety. It proposes that HRIS is prevalingly used to automatize the routine tasks and “replace file cabinets” [12]. Cite as [13] stated in their studies that HRIS is increasingly used in strategic decision-making process of the HR. Yet, the level of strategic HRIS use across organizations varies, and most of the organizations simply continue to use HRIS to remove manually-managed processes and to cut down on costs [14]. In practice, as long as the institutions are not convinced about the benefits offered by HRIS, they hesitate to practically use this system [15]. Advanced accuracy, timely and rapid access to information, and cost-saving are some of the most common benefits of HRIS [16]. In a similar study, cited from [17] proposed five reasons justifying why organizations should use HRIS. These reasons relate to HRIS’ contribution to organizations in following matters [17]. 1. Enhancing competitiveness through developing and increasing HR operations, 2. Producing more comprehensive HRM reports, 3. Shifting HRM’s role to Strategic Human Resources Management (SHRM), 4. Redesigning the whole HRM department of the organization, and 5. The opportunity to use HRIS in supporting strategic decision-making operation, program and policy assessment or daily operational matters.

HRIS has become a basic instrument in enhancing organizational performance and effectiveness, and its purpose has become more holistic and complicated with the recent developments in information and technology [11]. Efficiency is described as an organization’s degree to achieve its goals, and is a determining criterion used to identify how much an organization comes closer to the specified goal by using at a certain extent and efficiency the inputs such as workmanship, raw materials, materials, information and employees in the course of the goals. In other words, it is the measurement of the rate of achievement of the performance criteria set forth in the strategic plan. Reference [18] argues that there is a relationship between management, organization and efficiency, and such a relationship should be defined in three different perspectives, and an effective personal, group and organizational performance is an outcome of efficient planning, organization, leader and control. This is not such an easy procedure for the institutions and organizations. Managing people with different cultural structures, and achieving individual and group goals and organizational efficiency is a challenging, annoying but rewarding task for organizations in a rapidly-changing and complicated environment [18].

“Organizational efficiency” is a flexible structure which allows easy interaction and helps

employees to establish relations with the institution and among themselves more easily and thus yield more productivity and work performance. The emergence of new technologies and communication tools which facilitate establishment of networks beyond cultural and geographical boundaries has necessitated changes in organizational models and working methods that would bring about organizational success, efficiency, performance and strategic competitive advantage. Looking into a large number of studies conducted recently on organizational efficiency and performance, it appears that there are several factors such as information management and HRM that influence these variables. Citation of [19] investigated the impact of information management processes on business and organizational performance with regard to logistic process, and demonstrated a significant positive relationship between information management processes and business and organizational performance [19]. Reference [20] studied the impact of organizational learning and innovativeness on organizational performance, and found that a proper management of the information in the information-based economies of this age of information economy is important, and that a significant relationship exists between the variables organizational learning and innovativeness, and organizational performance, and that the basic sustainable strategic resource for a company in 21st century is the skill to transform new discrete information and adapt it to the processes, and to transform itself into a constantly-learning organization [20]. Reference [21] argued that technological knowledge involved in the information-based organizational performance in the global market of information age and integration of the knowledge in organization's main production development process might contribute to organizational efficiency and competitive advantage [21].

Reference [22] suggested that an information and communication infrastructure facilitating the communication in the organization would make information sharing easier, and this quality enhances organizational learning and improves organizational performance [22]. Reference [23] argued that it is a challenging process to abruptly change conventional organizational structures with a long history, and that managers' unwillingness and information management in information-based organizations relate to the skill of managing information, and that information management infrastructure and information processing process are important, and that transformation to information-based organization structure would develop organizational skills and effectiveness [23]. Reference [24] believe that HRIS can prevent the costly error that occurs in the matter of social benefits, and save the organization from the resulting expenses.

Further, reference [11] believes that an effective HRIS is a must in today's organizations in order to tackle the issues such as increasing organizational demands, and more comprehensive use of information, and more extensive need for information, and the constant pressure for reducing the costs and making HR a more strategic business partner, and they argue that HRIS has become an essential tool in enhancing organizational performance and effectiveness [11]. HRIS is a solution to the problems of the organizations in order to provide cost efficiency, and reduce managerial workload, and standardize HR processes or simply add strategic value to the decision-making action of the organization. There is consensus that among various practices HRIS is a very strong tool in boosting the effectiveness of an organization and hence its HR adequacy and organizational performance [25]. Cited from [9] attributed the efficiency of HRIS to its ability to give more effective and rapid results than the ones on paper. He warned that HRIS can be perceived as a necessary action for an organization but it may not result in more efficiency if it is not an effective tool for HR functions, and might on the contrary hinder efficiency [9]. A successful HRIS supports planning and implementation of basic managerial processes in an organization such as managerial decision-making, technology selection and organizational reporting structures. Therefore, HRIS has become an active tool in helping employees to establish relations with their organization and among themselves more easily and thereby yield more productivity and work performance [12].

6 Relationship between HRIS and Organizational Performance through Employee Performance

Impact The starting point of performance appraisal is clearly defining business processes and goals to be achieved in order for the employees to fully understand and comprehend what is expected from them in the organization. The factors affecting employee performance are primarily environmental conditions influencing a business' internal and external environment, and effective laws, union movements, organizational culture and performance appraisal system. These factors may have supported or hindering effects towards employees' high motivation, performance and works [26].

In today's business world where competitive advantage rather than competition gained more importance and value, business organizations' achieving their strategic goals hinges upon the human resources they will employ and use efficiently. The organizations in the business world today have to operate in an intensive competitive environment that has never been matched. Being supra competitive and different in such an environment is largely possible through fully utilizing the knowledge, skills and talents of the human resources of the business and ensuring their morale and motivation towards the work, or briefly using these resources effectively and efficiently. Human resources management comes into play right at this point, and plays an active role for showing how the employees can have higher performance and efficiency as well as a high morale, motivation, happiness and well-being so that the organizations can reach their goals and objectives compliant with their strategy "think globally, and act locally". Employees' Performance is personnel's contribution to the business goals. It shows how efficient the employees' discharge their duties and responsibilities.

Reference [27] explained that HRIS use in HR would reduce the automation costs of the information and the number of employees but still contribute to employees' checking their own information, and would offer HRIS managers easy access to the relevant information and data, and allow them to conduct analysis and to make decisions and communicate with others without consulting to HR professionals [28]. Although the ideal measurement of HRIS involves challenging measures such as return of investment (ROI), external variables render such a success measurement difficult, if not impossible. Thus, user satisfaction and perception for the system has often been used as a proxy measurement as a measure of the system effectiveness [27]. Cited as [29] demonstrated the impact of individual and e-HR system characteristics on four major performance variables (information flow, social interactions, perceived control and system recognition) in their study on effectiveness and recognition of Human Resources Systems and factors affecting these, and they offered a series of models.

7 Discussion

The above review of literature evidences, to a significant extent, inherent capacity of HRIS for employee performance and organizational efficiency. The key challenge in front of HR professionals is to understand the scope and depth of HRM functions in transforming their organizations as digital aspects of operations. This effort ultimately leads to better organizational performance and outcomes of the organization. Further, HRIS will improve positive attitude and motivating employees into effective activities which impacts of the organization and improve the positive impacts of the organization. In improving organization's efficiency and performance, employees are one of the key factors. Without proper system through HRIS adoption, it is difficult to create and maintain sustainable organizational performance. Many competitors competing each other to perform and to get competitive advantages in every sector.

Hence, it asserts that by understanding the scope and depth HRIS practices, organizations will have a capability of performing in more friendly manner than ever before in today's competitive business environment.

8 Conclusion

Based on this review, it is possible to conclude that by understanding and increasing the scope and depth of adopting HRIS, organizations can improve their performance through employee efficiency and satisfaction. The HRIS information are more powerful tools in making organizations and their operations more efficient. As a process, HRIS helps in achieving greater productivity with minimal expenditure which will leads to making the organization into a competitive positioning. It helps eliminate repetition in the work, very fast information sharing, on time problem solving and more. It aims to increase workers' engagement in a work environment through giving enough information that allows the organization to function in an efficient manner. Many evidences showed that there is a relationship between HRIS and employee as well as organizational performances. Hence, this study suggests that organizations be required to give more priority to make human resource information system with strategic perspectives.

Continuous development of HRIS should be performed by an organization. Reference [30] offer a model as guidance in developing the HRIS. This addresses the significance of employee with HR and HRIS backgrounds in managing the information and data, and then examine these so that strategic business planning and its application can deliver substantial result (strategic partner). For that reason, the development of HRIS and approach of hiring personnel with HR and HRIS qualification must not be perceived as a financial burden for the organization. Nonetheless, these should be valued as a long-term investment to support organizational survival and competitiveness in marketplace.

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