

Role of Human Resource Information System in Functional Integration of Human Resource Management Case Study Research

***Dr Renu Bhargava**

*Director Indira School of Business Studies, Pune.

Abstract

This paper explores the role of Human Resource Information System (HRIS) as an operational link between strategic organizational vision and human resources implementations to provide functional integration of human resource management. This paper is an extension of prior research carried out by the author through literature review, to establish the Role of HRIS in strategic Human Resource Management, which was published in Research Journal of Social Science and Management in January 2014. The current paper presents case studies of five IT and ITES firms and its scope with respect to HR Life Cycle management from acquiring human resource to separation. Through analysis of five case studies the authors have examined the impact of HRIS on the HR function and have researched the level and degree to which HRIS is enabling the strategic management of HR as a function. Researcher has delved into several components as they comprise of HRM initiatives that are linked to enterprise resource planning to facilitate strategic decision making. Each of the components researched, serve a pivotal role in a fully functioning HRIS. Strategic integration gives high level decision makers the information that is necessary to make long range plans about organizational operations, as well as providing a feedback loop to integrate HR planning with strategic development. Without these information exchanges, managers would not be able to include expected personnel factors in their decision making processes. For instance if the firms are using the systems in order to process and record leave, then to what extent that information is utilized in relation to staff planning will explain the strategic integration. The researcher has used questionnaire survey and in-depth semi-structured interview to conduct the research.

Keywords: Enterprise Resource Planning; Transaction Management; Corporate Services; Workforce Planning; Workforce Analytics.

Introduction

As the size of firms increases and spreads across domestic boundaries there is a perceptible need to integrate HR information into the system to enable access to information for making effective decisions. This has led to technology intervention for gathering, storing and analyzing information regarding human resources through the use of Human Resource Information Systems software or other types of software which include HRIS functionality. The inclination to adopt technology to manage HR along with the availability of sophisticated software poses the HR function with challenges. The subject of the strategic relevance of human resource management in organizational plans and models provides a deep foray into one of the core success factors that effectively underpins the achievement of leadership and managerial objectives. This insight drives the current inquiry into one of the principal levers of modern human resource management identified as Human Resource Information System.

Literature Review

As part of literature review the research provides an introduction to the concept of HRIS, enumerates the study through theoretical construct of Human Resource Management (HRM) as a function and the aspect of managing HR through Strategic perspective. In addition, using HRIS provides value to the organization and improves HR professionals' own standing in the organization (Ulrich, 2001). In another development, the need for HR to become a strategic partner, where HRIS provides management with strategic data not only in recruitment and retention strategies, but also in merging HRIS data into large-scale corporate strategy (Brockbank,1999). It must be noted though, that, none of these calculations result in cost reduction in the HR function (Gerardine DeSanctis, 1986). The aforementioned areas however, may realize significant savings using more complete and current data made available to the appropriate decision makers. HRIS is therefore a medium that helps HR professionals perform

their job roles more effectively (Gallagher; Broderick and Boudreau, 1986). There has been a dramatic increase in HRIS's usage. For example, it has been established that the use of HRIS had consistently increased over the previous years, irrespective of the degree of strategic partnership held by the HR function (Lawler et al., 2004). Even though, numerous studies in this area have provided substantial empirical and theoretical contributions to the field of HRIS this area of investigation is still in its infancy. Interestingly, little however is known about the role of HRIS in SHRM (Hussain et al., 2007). As the pressure to shift from HRM to SHRM keeps on mounting, coupling with severe global competition, and in conjunction with the ever-increasing demand for HRIS, further research is still needed in this field. Management scholars contend that enhanced theoretical rigor is necessary to bridge the gap between researches and practice (Becker, & Gerhart, 1996; Kuhn, 1996; Ulrich, 1997). In response relatively few studies have focused specifically on HRIS, and many of these studies have been descriptive, narrowly focused, or anecdotal (Haines, & Petit, 1997; Kovach, & Cathcart, 1999; Richards-Carpenter, 1997; Richards-Carpenter, 1996).

To achieve complex objectives, many organizations have turned to information systems technology (Haines, & Petit, 1997; Richards-Carpenter, 1997). In reality, computer technology is not required for a successful HRIS function, and many HRIS activities still defy computer automation (Haines, & Petit, 1997; Simon, & Werner, 1996). Nevertheless, many related tasks such as rapid information dissemination and feedback would be impractical or impossible without computerized support (DeSanctis, 1986; Haines, & Petit, 1997). While such studies provide valuable insights into HRIS implementation, their generalizability is limited due to the absence of a comprehensive foundation in which to contextually base these findings (Kovach, & Cathcart, 1999).

HRIS is defined as a technology-based system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information regarding an organization's human resources (Tannenbaum 1990; Hendrickson, 2003). Early surveys suggested that HRIS were used predominantly to automate routine tasks and "to replace filing cabinets" (Martinsons, 1994). Ball (2001) concluded that HR had missed the strategic opportunity provided by HRIS. However, the extent to which HRIS is used in a strategic fashion differs across organizations, with the vast majority of organizations continuing to use HRIS simply to replace manual processing and to reduce costs (Bee & Bee, 2002; Brown, 2002). Recent debates about technology and organization have highlighted the importance of social context and sought to develop frameworks which acknowledge both the material and social character of technologies including HRIS (Dery, Hall, & Wailes, 2006). Accordingly, theories which can be considered as 'social constructivist' can play an important role in the study of technology as they explicitly recognise that technologies, such as HRIS, cannot be evaluated and analysed without having an explicit understanding of the context of individuals and groups which consequently comprehend, interpret, use and engage with the technology (Grint & Woolgar, 1997; Orlikowski & Barley, 2001; Williams & Edge, 1996). Thus a technology is seen to be characterized by 'interpretative flexibility' and various 'relevant social groups' who articulate and promote particular interpretations of it. This meaning, over time tends to become accepted and the interpretation of the technology stabilizes (Dery et al., 2006).

Research Objective

Through analysis of five case studies in the IT and ITES firms the authors have examined the impact of HRIS on the HR function and have researched the level and degree to which HRIS is enabling the strategic management of HR as a function. Such enquiry enabled the researchers to imbibe greater clarity about the management of HRIS in each organization and created possibility of comparative analysis amongst the five case studies.

Analysis

The author has examined the impact of HRIS on the HR function and the level to which HRIS is enabling the strategic management of HR as a function through analysis of five case studies in the IT and ITES firms. Such enquiry enabled the researchers to imbibe greater clarity about the management of HRIS in each organization and created possibility of comparative analysis amongst the five case studies.

Researchers have classified HR life cycle into four primary functional components, as they comprise of HRM initiatives and must be linked to enterprise resource planning to facilitate strategic decision making. Such components have been used as the basis for a comparative study in the IT and ITES sector for their relevance and application in advancing HRIS as an operational link between strategic organizational vision and human resources implementations. Each of these components serves a pivotal role in a fully functioning HRIS. It is important to note that the mentioned components are suggested elements by the said firms and these could be many more depending on each organization's needs. What is important to concentrate on is the extent of Strategic integration. Following is the analysis, which is presented based on the components under study:

(1) Transaction Management essentially refers to time management, attendance, payroll management and exit management. This aspect involves records and compliance which is necessary to meet both legal requirements that mandate specific information retention and to provide a data base that contributes to the proper functioning of the other HRIS areas. This unit is also teamed with the knowledge management function of HRIS in two of the researched firms. The respondents in these firms state that coordination and cooperation is important since the transaction records and compliance areas provide vital data for knowledge management. All five firms under consideration display the utilization of technology to maintain transactional records. These firms also confirmed the utilization of such information for resource planning, recruitment and attrition. However such decisions were primarily dominated for administrative ease and legal compliances. Integrating talent management, for instance, through the record generated by transaction management was not a major part of strategy decisions for future. So, for instance utilizing data for employee engagement, retention, sourcing future talent etc., was limited to only two of the firms under study. Rest of the cases had enterprise wide data availability and for such companies' automated work force planning helped strategize the employee intake for future; and for the others a combination of information technology systems and hard data analytics firmed sourcing decisions. Two of the stated cases have vast global presence and for them talent acquisition and talent management is achieved by using information technology to map requirement with available talent, for over forty thousand associates.

(2) Corporate Services and Services Delivery comprises actions such as Performance Management, Skill Management and Individual Development. Case study analysis of the firms indicates that strategic decisions regarding Corporate Services and Workforce Planning are facilitated by the utilization of information technology only in one firm, particularly at the level of individual development and skill management. Therefore the respondent's views are that for example short skilling for particular projects and individual differences in performance are mapped more at departmental level and these do not result in mapping ratios for individual productivity enhancement for strategic decisions. However the degree and extent of application varies. In these firms, interventions such as Performance management, Skill Management Systems, Productivity Assessment, Appraisal Process and Attrition Analysis create data internally for outcome at functional level rather than strategic implementation. It is felt by respondents that an effective information technology system must connect outcome from all such interventions to provide data relevant for sourcing decisions and productivity enhancement.

(3) Workforce planning is articulated through implementation of HRIS in areas such as Vacancy, Recruitment, Compensation Administration, Skill Management, Succession Planning, Employee Training and Retirement. Employee Life Cycle Management can be associated with the aspect of Workforce Planning. Case analysis brought forth the utilization of information technology in these firms for Workforce Planning. Such systems help to track attrition and talent shortfall and manage exit data for future sourcing in such firms; IT application in these firms also helps to look at skill gaps at the time of sourcing for talent and hiring decisions. However decisions regarding compensation variance are preferred to be excluded from technology based enterprise resource plans. The respondents stated that success of the system for talent acquisition depended on integration of all HR systems with right output from one system flowing in as input to the subsequent system. For instance, information on employee development emerging from Performance Management System, which in turn flows for competency mapping, therefore

identifies need for talent acquisition. This enterprise wide resource planning was a challenge for one third of the organizations studied, and these organizations were still coming to grips with reliability of information. Such organizations were combining Information technology enabled data with traditional mode of data synchronization, thus enhancing the scope for analysis and process improvement. The major challenge these firms face is in getting the right talent and getting the talent with least time lag from time of sourcing to selection, without increased cost of sourcing. One third of the firms stated that IT enabled information systems helped in acquiring talent by strategizing sourcing partners, such as enabling sourcing for vendors, vendor development particularly for temporary staffing, creating alternate channels for recruitment and developing referrals. Maximum utilization of IT was witnessed for sourcing from the application stage to interview stage, with scores for facilitating correct fitment. Moreover, the most visible function of IT application for these firms is the output generated. To generate valuable output for computer users, the IT applications have to process that output, make the necessary calculations, and then format the presentation in a way that is understood for decision making. According to one respondent for instance, staff requisition from across strategic units in domestic and overseas destination adds new data to the database after data have been entered into the information system. Information technologies contribute positively to staff recruitment for global IT service providers as indicated in the case under review. Especially its importance was felt in minimizing turnover, as it supports allocation of employees to international engagements, including scheduling and training. This company feels that the development of IT over the last twenty years has been driven by imperatives to improve the service of the HR function, further compounded by the growth of global enterprise-wide information systems (GEIS). The challenge for the company under consideration was that such software system should allow it to share common data across functional areas of enterprises, operating transnational and which produce and access information in a real-time environment, to avoid time lag and enable just in time recruitment rather than keeping employees on the bench.

(4) Workforce Analytics and aspects of ROI have been translated with respect to HR Budget Management, Productivity, Employee Engagement and Employee Turnover. In the firms researched it was indicated by respondents that as the functionality of HRIS is developed into organizational analytics and modeling of data, to support more strategic decisions and predictive qualities, the knowledge management function becomes supremely critical to fully utilize the information contained in the records. Three case studies indicated that their challenge emerged from such effectiveness in knowledge management function, which must also capture previously tacit and other undocumented forms of significant organizational knowledge. It was conveyed by the respondents that such capabilities of managing knowledge to preserve the organizational memory is necessary for high levels of organizational performance. At the same time appropriate transmission of such knowledge must occur throughout the workforce for strategic HR implementation. Such systems are utilized mainly to increase administrative efficiency and produce reports capable of improving decision-making through human intervention in such firms. The respondents faith in reliability of information through information technology applications have portrayed that as the functionality is developed into organizational analytics and modeling of data to support more strategic decisions and predictive qualities, the risk and costs further escalate. Such organizations are working to strengthen the systems further for zero risk functionality of using information technology for areas such as talent acquisition, work force planning, skill development, productivity, and employee engagement and employee turnover.

In the two larger firms IT provides management with strategic data not only in recruitment and retention strategies, but also in merging IT data into large-scale corporate strategy. Such firms are utilizing IT to perform calculations that have effects on the business as a whole. Such calculations for instance, 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. It must be noted though, that as per the respondents, none of these calculations result in cost reduction in the HR function. At a basic level of communication where the IT application provides access to HR information, the system is designed to automate existing processes and provide alternatives to existing time consuming HR functionality. However, as the systems deliver more interactive HR

functionality (eg: transnational talent requisition and employee turnover) the complexity of the system increases costs, involves higher degrees of organizational interaction and thus higher risk at relying completely on technology to identify suitable talent. However for such firms the most important implementations of IT systems are in recruitment, as the need for diverse talent is critical with respect to peculiarity of client projects and this is followed by its utility in Training, and Performance Management Systems.

HRIS Implementation Challenges is an area that presents a case for further research. The case studies under consideration were probed regarding challenges faced by them in areas such as technology issues; user acceptance, understanding user requirements, budgets, employee discipline and lack of need perceived for HRIS. While some of these challenges were attributed to the management of new technologies in general, findings demonstrate that several are in fact specific to HR and reflect the complex nature of the management of people, the allocation of resources to technology implementation in areas such as talent acquisition which can be managed without technology intervention. Despite all five case studies stating that the information technology implementation or upgrade in their respective organizations is undertaken with the aim of utilizing functions that are of a strategic nature, thereby enhancing the strategic contribution of the HR function, further probing suggests that progress towards making these changes is being hindered by a range of technological, managerial and organizational challenges. A tendency to underestimate the complexity of IT, and its impact on the employee behavior and processes of the organization, and in some cases, the increased delegation of responsibilities to vendors and consultants presents its own challenges. The major challenge for HR management is how to manage the tension between the need to adapt practice to meet the needs of the IT versus customizing the technology to fit existing practices and the unpredictability involved in the management of people. Associated with this challenge is the decision of where to locate the management of the IT i.e. within Information Technology or as an HR technology group within HR.

Conclusion

The researcher has clearly put forth the argument for adopting HRIS as a functional reality for facilitating strategic HRM. However the readers must keep well in mind that the usage, implementation and impact must be weighed with respect to the strategic direction of the firm. This study aimed to provide a perspective to the reader to understand the relevance of adopting HRIS as a suitable model based on the case studies of several such organizations that have adopted HRIS. This research also leaves scope for field research to examine how HR professionals and managers in different organizations can establish suitable model of HRIS with clear understanding of the effects of HRIS on strategic HR tasks and job roles. Initial findings from our five case studies suggest that although new or upgraded HRIS systems are being utilized, the potential for this technology to be used in ways that contribute to the strategic direction of the organization is not being realized potentially and definitely not by two-third of the firms under study. More specifically, our results suggest that the opportunity to enhance HR's role as strategic partner as a result of the use of HRIS is being hindered by some of the challenges mentioned earlier in the research paper. If permitted to work around the challenges, it would be safe to conclude that to assure greater articulation of the system it would require the ability to maintain the levels of senior management commitment and resources needed to implement and manage new or upgraded HRIS. This would also entail managing the complexity of the HRIS and its associated functionality. The human side of implementing HRIS would require dealing with consequent barriers associated with the acceptance of HRIS among key managers and employees along with the importance attached to managing the change processes associated with the implementation and introduction of the new or upgraded systems.

Recommendations for Further Research

HRIS is an effective and efficient catalyst for integrating human resource management and Information Technology. Further research should enable the development of models that can be adopted to suit the diverse needs of organizations and such models must reflect such attributes and help to clarify the design of human resource information systems that nurture organizational competence. Concurrently, these insights can be configured to develop improved

HRIS evaluation tools. Ideally, these assessment techniques will identify potential HRIS opportunities and problems with early warning messages that maximize financial and performance outcomes.

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