

Enabling More Efficient Knowledge Management Sharing Through Human Resource Information Systems Development

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Abstract: Historically, the role and function of the Human Resources (HR) department has been to manage the employees in the workforce, as well as keeping an eye on performance and production, as well as budgetary expenses. However, with the introduction of more technology in the workforce, as well as learning more about the best practices of other competing industries, employers today have to be even more technologically savvy and continuously improving all processes and procedures in order to best maximize overall efficiency and effectiveness of their workforce. Since the introduction of the terms “knowledge management” and “learning organization”, many organizations have tried to “jump onboard with others” to explore and create their own version of these terms, as well as try to develop their own form of “best practices” to help them continue to improve and grow. Consequently, in the field of HR, many HR leaders and professionals are now using some form of technology known as Human Resource Information Systems (HRIS) to better manage their workforces in terms of employee information, training records, hiring and promotion dates, salary increases, disciplinary actions and much more important employee information. However, one of the key problems faced by HR is their limitation of knowledge in the field of technology, which is usually linked to only their current technological uses, as well as their lack of direct communication or effective communication with other departments, namely the Information Systems department, to help them improve with their use of technology and gain the best possible management of knowledge gained in their role and function as the “managers of human capital”. This paper will look at the question of how important inter-departmental interaction play in the creation, implementation and overall evaluation of HRIS in terms of a form of organizational knowledge management technology to be shared with various departments who need current information for decision-making processes. Further, this paper will examine how one university approaches the teaching of HRIS development and design, as well as their emphasis on how best practices of other organizations can be used as learning tool and measure for better use of technology in the workplace.

Key words: Knowledge management • Human resource information • Human resources

INTRODUCTION

How knowledge is measured or valued in one organization can vary with other entities. What one organization may view as important, contextually the same information or knowledge may be of little or no value to another. In any event, it is the constructions that an organization gives to knowledge, as perceived from lessons learned or other factors affecting them, such as organizational culture, business or economic factors or even per their own forecasting for future needs. Whatever the value, whether big or small, organizations need to deem what is relevant or important and if there is a current or future value for it. Consequently, this paper will aim at

looking at the framework of a strong Human Resource Information Systems (HRIS) in terms of its design and development, implementation and ongoing evaluative process to see how an organization can include various elements of knowledge management for later use and distribution among various designated parties (sharing of information). From a contextual perspective, this paper will address how one university uses a specifically designed Human Resource Management (HRM) course focused on principles and application used for the selection, design, development, implementation and evaluation of required HRIS for organizational management of critical human capital information, as well as housing much-needed knowledge management segments for not only HR, but

critical human capital data that can be helpful for strategic decision making, as well as management and promotion of human capital to be help the organization meet their strategic organizational objectives and goals.

As technology evolves more and more, organizations and its human capital must learn to change, adapt or become extinct. No longer are the days when management had complete control of an organizational fate or profitable nature, but rather, more external factors now play a stronger and more controlling role and function with today's organizations. In fact, as more organizations acquire new and improved technology, they realized that they are still making some of the previous mistakes through trial-and-error, of which could be prevented if they had some way of learning from previous experiences. Thus, this is helpful to set the purpose of this paper to learn more about why technology has become more of a role and function in today's daily operations. However, as more organizations and their leadership and management begin to realize the need to become more of strategic partner with other departments and achieve more "in sync" network and camaraderie, they have discovered the need for changing roles and functions to connect the dots to achieve a more direct connection. Throughout the course of this paper, the following questions will be addressed in terms of how the above noted goals were to be achieved and how they are evolving on a regular basis, but with more noticeable results and potential long-term emphasis on achieving even more leverage in the workplace and marketplace in general. Here are the questions to be addressed in the paper.

Question #1: What are the specific limitations of knowledge management efforts in today's organizations, specifically in the areas of Human Resource Management and Strategic Management?

Question #2: What are the roles and function managers of human capital and managers of knowledge management?

Question #3: What is the practical Inter-Departmental or cooperative/collaborative efforts?

Questions #4: What is the role and function of the instructional staff for course learning objectives in teaching knowledge management and HRIS principles/application into the creating of knowledge management components of an HRIS system?

Therefore, this paper will overview the key roles and functions of various stakeholders in organizations, specifically with the creation of Human Resource Information Systems (HRIS) and its use of knowledge management as a contributing factor, but also a sharing factor for the designed stakeholders' review and use. It should be noted that an emphasis will be placed on the design and development of said HRIS with a coupling of a knowledge management component in hopes of developing and nurturing relationships with other departments, especially with the Information Systems (IS) Department. However, due to historical problems between the two departments due to competing for favours with organizational leadership and organizational culture, as well as competing for acceptance as a strategic partnership. In particular, both departments have been competing for more managerial acceptance, as well as producing better results and ways to capture and memorialize knowledge to demonstrate their abilities and skills in creating a working and functioning knowledge management system, but yet offering it has a part of another bigger piece of the puzzle – the management and overall development of the organization's human capital, but in terms of constructing yet another gateway to their intellectual capital towards other ways of achieving organizational goals and sub-goals along the way. On the other hand, there are limitations with any project, especially with new efforts in creating forms of knowledge management components or systems. The next section will overview some of the limitations that organization should bear in mind when approach the adopting of an HRIS and managing it.

LIMITATIONS OF KNOWLEDGE MANAGEMENT EFFORTS IN TODAY'S ORGANIZATIONS: While some organizations have been working on the overall creation, design and development of their knowledge management systems, there are other still in their infancy stage. It should be noted that some of these systems are created and used for various uses, but sometimes they may not always include the "actual experiences and memories" of the employees who have a "hands-on" set of experiences and knowledge that could be even more useful to such knowledge management experiences. While some sources, such as AllKM.com (2011) noted that knowledge management could be viewed as a 'system to facilitate learning, innovation and sharing to achieve the strategic objectives of an organization" (p. 2). However, some professionals may want to focus on current business practices, some of their consultants and service professionals may want

more of a theoretical approach in order to focus on one key goal of establishing such a central database for storage of knowledge and the ability to manage it according to their own specifications. Nonetheless, this may be a noble approach from either side of the table, but the bottom line are the requirements. First, there has to be clear set of organizational goals in mind in terms of what the organization wants and needs. Second, there needs to be an organized, experienced and skillful set of professionals and intellectual capital personnel (specifically, with a strong command of information technology and security) ready to work on such applications endeavors. Third, a budget for such a project needs to be carefully plan, but yet flexible to meet the ever-changing needs for such project planning and management as such an undertaking is not stagnant or done in a vacuum, but rather it is an ongoing event and project that will only continue to be properly management with the proper set of protocols and budgeting considerations.

To go one set further with the decision of a practical or theoretical approach, KMNetwork (2011) noted that knowledge management as being “more about the pragmatic and thoughtful application as it is not in the theoretical definition but in real world execution wherein lie the greatest opportunities and challenges” (p.2). Consequently, with the various types of benchmarking studies and review of best practices of companies which have successfully adopted and implemented successful HRIS, many have indicated that they have had to modify and adapt their approaches to include more human capital input in order to best design and develop such HRIS systems that will not only help preserve important knowledge, capture important work-related events and skills sets (training and education), share vital needed “on the spot information related to human capital decisions and potential marketing needs”, but also created their beginning attempt to devise such a knowledge management central database to serve as a prototype for future organizational projects leading towards the attainment of key organizational and strategic goals.

Thus, this leads one to view the first of the questions to be reviewed in this paper. Question #1 – What are the specific limitations of knowledge management efforts in today’s organizations, specifically in the areas of Human Resource Management and Strategic Management? As noted earlier one of the key limitations of such a project involving the design and development of the overall HRIS may be the education and training of the staff assigned with this specific organizational project management.

Currently, the International Association of Human Resources Information Management (IHRIM) has the only current certification programs in HRIS. This program will “cover all aspects of HRIM/HRIS, including the latest trends and best practices.” Further, its certification exam “assesses the knowledge, skills and abilities of staff in HR information management... The studies expand knowledge and understanding of HRIM and HRIS technology, functions, trends and best practices.” (Sokol, 2017).

Another limitation may be the costs associated with the creation and implementation of the HRIS. According to Carsen (2013), there are a variety of reasons why one would use an HRIS in today’s workplace. For example, it allows employee self service, which will enable employees to view and update their personal data, such as address changes, education or training courses taken, etc. This in turn will free up time for HR personnel from inputting a number of data changes (which will be later verified during performance evaluations). Finally, it helps to “store data all in one place. This allows time-efficient reporting for compliance, employee development and strategic means. They can allow executive and management reporting capabilities “on the fly.” Managers can access the information in a timely manner as it pertains to employee development, performance improvement and wage details (as appropriate).” (Carsen, 2013) Finally, another limitation is the number of designated parties who can access, input, manage and/or edit such human capital information, specifically, the questions during each segment of the HRIS creation and implementation is the role and function of all parties involved in the HRIS process. Thus, there is one way an organization can bring together all interested parties in such a common goal of creation and implementation is known as “communities of practice”. Wenger (2006) noted that these communities of practice are the formation of “people who engage in a process of collective learning in a shared domain of human behaviour...” (para. 3). Therefore, these “communities of practice” may be empowered or directed to create, share, maintain, develop and evaluate all types of knowledge through various activities, such as problem solving, sharing developments, documenting and working on projects and mapping out knowledge and seeking improvements, as well as striving for better achieve of organizational objectives and goals. As this paper will discuss how HRIS can aid in the management of human capital, one has to consider the various impact factors on both human capital and connection and use of knowledge in such managerial efforts, as will be discussed in the following section.

Impact of Hris on Human Capital and Knowledge Management:

Historically, since the introduction of the terms “knowledge management” and “learning organization”, many organizations have tried to “jump onboard with others” to explore and create their own version of these terms, as well as trying to develop their own form of “best practices” to help their organization to continue to improve and grow. However, in order to better understand the elements of knowledge management, we need to look at key component known as intellectual capital. According to Answers.com, “*Intellectual capital* collectively refers to all resources that determine the value and the competitiveness of an enterprise. As such, it includes as subsets the attributes that concur to building all financial statements as well as the balance sheet.” [1] Although intellectual capital can be explored and examined in the context of employees, organizational capabilities or customers, the main focus of this paper will focus on the area of human capital in terms of management of knowledge stored, used and distributed. According to Stewart (1997), he defined human capital as “The capabilities of the company’s employees is necessary to provide solutions to customers, to innovate and to renew. In addition to individual capabilities, human capital includes the dynamics of an intelligent (learning) organization in a changing competitive environment, its creativity and innovativeness.” [2] Thus, this lead us to Questions 2 – What are the roles and function managers of human capital and managers of knowledge management? While the roles and function of managers and employees are defined in a first level knowledge management documentation, known as a job description, this also serves as the primary basis for later performance evaluation. As roles and function for any part of the human capital of an organization changes, this is normally documented by the manager and/or HR department. However, as companies have experienced growth and various changes to the workforce, especially the shrinking workforce due to the department of Baby Boomers, there is a stronger need to document current and ongoing information on these employees.

How does HR and managers keep up-to-date documentation on employees, in order to better assess their skills, recommend future training and/or education and evaluate them for their yearly performance? One way is to keep a specific set of records on their skills and development over the year’s timeframe. According to Brinker (1997) some measurable items that management can evaluate in this area are as follows:

- Training programs
- Credentials
- Experience
- Competence
- Recruitment
- Mentoring
- Learning programs
- Individual potential
- Personality

As noted earlier about the shrinking workforce and retirement of Baby Boomers, more organizations are now competing heavier than before for qualified candidates for their open positions. Equally important, European companies have taken a more focused effort towards re-evaluating their own Intellectual Capital in terms of a series of questions, which constitutes what is called the Intellectual Capital Summary (ICS). According to InCaS (2010), “An Intellectual Capital Statement (hereafter referred to as ICS) is a strategic management instrument for assessing and developing the Intellectual Capital (IC) of an organisation. [3] It shows how Intellectual Capital is linked to corporate goals, business processes and the business success of an organization using indicators to measure these elements”. Therefore, in consideration with the American and European perspectives on intellectual capital, there seems a need to focus more on the given value of their intellectual capital, namely human capital and memorialize important dates, events, information and lessons learned, which may enable interested and designed parties such information to make better informed decisions.

Practical Application of Hris Knowledge Sharing and Management:

As noted earlier in the paper, many organizations have realized the importance of creating HRIS systems to help memorialize past and current information on human capital in order to make current and future decision making, as well as prepare better organizational strategies for goal attainment. However, where is the practicality of such efforts and can the information be shared or modified for use by some or all departments.? Further, as we look at Question 3 – What is the practical Inter-Departmental or cooperative/collaborative efforts? One of the key departmental conflicts that can occur at the onset of any HRIS project is the interrelationships between departments, such as that of the HR and Information Technology (IT) departments. The key barrier presented

at first is whether they can reach a common level of understandings, set of working terminology and definitions and can they translate some computer lingo into a viable form of communication in which all parties can communicate, interact and form a common dialogue, along with positive group dynamics, in order to achieve their common project goals for the intended project [4]. While on the surface, this looks practical, sometimes there is a breakdown of communication, especially as noted earlier when HR and IT use different terms, meanings and usages during their project meeting sessions. Therefore, sometimes the two departments have to find a common ground and work as a marriage of two departments in order to accomplish this key organizational project, which can benefit multiple departments, but yet still display the thumbprints of both the HR and IT departments. However, one way to help bring the two departments together on a common ground or footing might be based on whether the two have an open mind and not set in their own mindset and willing to look at more than one strategy or approach. One way that this can be accomplished is by looking at how learning is approached and knowledge is shared and/or valued by the departments. Also, another key item to consider is the use of best practices or rather the creation of best practices within departments and the organization.

Organizational Learning and Knowledge Management in Terms of Best Practices: What is organizational learning and how can it help with the goal of knowledge management? Can best practices really help in this regard or is it something that each organization needs to experience on their own to better understand what they may or may not need? First, let us look at organizational learning. According to the Business Dictionary, it defines organizational learning as “Organization-wide continuous process that enhances its collective ability to accept, make sense of and respond to internal and external change. [5] Organizational learning and is more than the sum of the information held by employees. It requires systematic integration and collective interpretation of new knowledge that leads to collective action and involves risk taking as experimentation.” With this definition in mind, the exchange of knowledge should be a two-way street, but it should be noted that due to federal, state and/or local rules, regulations and laws, some information may not be shared with all parts of an organization and/or may be limited in scope to certain designated parties. Thus, this leads to a larger question which will be referred

to later in the paper for further research purposes in that with limited access to certain knowledge management components, namely, the HRIS, can an organization truly consider this sharing of information or rather the management of knowledge among the parties of an organization? Due to the paper constraint of this paper and the nature of a working paper in progress, we will highlight the remaining questions discussed earlier in the paper, along with supporting discussion for consideration.

If we are to look at Question 4 – What is the role and function of the instructional staff for course learning objectives in teaching knowledge management and HRIS principles/application into the creating of knowledge management components of an HRIS system? This could be answered a variety of ways, but the main point would be the education and training of the staff and designers of the HRIS is the main area to review first. Then after the process of designing and developing, as well as the implementation of the HRIS is accomplished, then this would provide documentation as to what types of training might be needed for HRIS users. It should be noted that several leading colleges and universities offer specialized courses in the principles of HRIS in terms of design and development, implementation and evaluation [6].

in the field of HR, many HR leaders and professionals are now using some form of technology known as Human Resource Information Systems (HRIS) to better manage their workforces in terms of employee information, training records, hiring and promotion dates, salary increases, disciplinary actions and much more important employee information. However, one of the key problems faced by HR is their limitation of knowledge in the field of technology, which is usually linked to only their current technological uses, as well as their lack of direct communication or effective communication with other departments, namely the Information Systems department, to help them improve with their use of technology and gain the best possible management of knowledge gained in their role and function as the “managers of human capital”. Consequently, while online learning courses has been focused on both the academic and business needs, many organizations have been discovering that online learning has many benefits. As a result, these organizations have been focusing on the “learning” element of their human capital and how various forms/formats of knowledge management can benefit them daily and towards the attainment or organizational goals. Thompson (1995) noted that “organizational learning

involves the acquisition of new information and the ability to analyse that information creatively, learn from it and apply that learning in useful ways" [7]. Thus, as more organizations began to realize a need to "capture" and "utilize" this type of learning, they also will realize the need for additional attention to be made towards building up both informal and formal learning in the workplace.

The term best practices are used regularly in most of the trade literature, but how one organization defines its best practices, it may not be interpreted or viewed by others as having the same esteem. According to Jones (1993) described best practices as centered: "on the very essence of good management: guiding employees toward greater productivity, liberating them from the burdens of disorganization without saddling them with restrictive bureaucracy and helping them to overcome some measure of the troublesome flaws inherent in people and processes. These are the measures of effectiveness and efficiency." [8] Thus, this opens the discussion as to the best practices offered by leading organizations in certain industries in their adoption and use of HRIS. According to various businesses and organizations belonging to local university curriculum advisory councils, the need for courses in knowledge management and HRIS has been increasing [9][10]. Many universities offering traditional, hybrid and online courses on HRIS and/or knowledge management have examined the literature and input from the business community as to what they look forward in creating good models of organizations in these topic areas. For example, InCaS (2010) proposed the following questions to help capture the value creating model for companies.

- "What product or service does the business offer?"
- How can customers benefit from this product or service?
- Which market segments / groups of customers are targeted?
- To whom will the proposition be appealing?
- From whom will resources be received?
- How are the products or services created?
- How are they going to be delivered to the customers?
- How will the customer pay for the product or service?
- What is the price/margin for the product or service offered to the customer?"

If we look at these questions above in the context of what are the overall goals of HR in terms of managing human capital and creating a basic knowledge management system, the use of an HRIS seems ideal.

While the questions are more geared for the overall organization, the key common element for all of these are human capital and their input on the product/services for the organization and its overall performance and productivity. If HR and department managers can benefit from information collected and stored in an HRIS system to make better recruiting, selecting, hiring and training (and perhaps promotion) decision, this may save the organization a notable amount of funds each year as they work towards better employee retention, productivity and organizational performance.

CONCLUSIONS

This paper has looked at the theoretical and business perspectives on the use of HRIS systems as a center point for storing knowledge and created better working and informational distributional systems for various members of organizations. While it focused on the various limitations of such knowledge management efforts in terms of two key departments, namely, HR and IT, it did look at the roles and functions of key organizational members who could benefit from proper and timely project management in terms of an HRIS system. Basically, the paper looked at the potential benefits of inter-departmental relationships and collaborative efforts, but was limited in scope by the limitation of the paper's length requirements. Further, an emphasis was sounded in the paper on the training and educational needs of all users and the development of quality training programs to enable and empower HRIS users. Finally, one key research point did appear in the research and development of this article, which focused on a larger question for further question on the use of an HRIS in today's organizations. Can an organization truly consider this sharing of information or rather the management of knowledge among the parties of an organization?

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