

Role of Information System in Human Resource Management for Global Business Competitiveness

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Abstract

Today's global economy requires increased attention to the issue of business competitiveness. Business information systems and high information technologies raise the competitiveness of enterprises in global markets. Business intelligence as the basis for development and application in business information systems is becoming an important information technology framework that can help organization to manage, develop and communicate their intangible assets, such as information and knowledge. Thus it can be considered as an imperative framework in the current knowledge-based economy. Information system which is comprised of hardware, software, data, people, and procedures, is used to produce information that may allow a company to gain competitive advantage by producing insights that lead to actions. Information system means, a business application of the computer. It is made up of the database, application programs and manual and machine procedures. The use of information system in Human Resource Management is also called as Human Resource Management System or Human Resource Information System. The function of Human Resources departments is generally administrative and common to all organizations. Organizations may have formalized selection, evaluation, and payroll processes. Efficient and effective management of "Human capital" progressed to an increasingly imperative and complex process. The HR function consists of tracking existing employee data which traditionally includes personal histories, skills, capabilities, accomplishments and salary. To reduce the manual workload of these administrative activities, organizations began to electronically automate many of these processes by introducing specialized Human Resource Management Systems. HR executives rely on internal or external IT professionals to develop and maintain an integrated HRMS. Human Resource Management Systems enabled increasingly higher administrative control of such systems. In present times,

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Human Resource Management Systems includes: Payroll, Work Time, Appraisal performance, Recruiting, Performance Record, Performance appraisal and Employee Self-Service etc. In Global scenario, information system in Human Resource Management is playing important role for business development and competitiveness.

Key words: Information System, Human Resource Management, Business competitiveness.

Introduction

Today's global economy requires increased attention to the issue of business competitiveness. Business information systems and high information technologies raise the competitiveness of enterprises in global markets. Business intelligence as the basis for development and application in business information systems is becoming an important information technology framework that can help organization to manage, develop and communicate their intangible assets, such as information and knowledge. Thus it can be considered as an imperative framework in the current knowledge-based economy. Information system which is comprised of hardware, software, data, people, and procedures, is used to produce information that may allow a company to gain competitive advantage by producing insights that lead to actions.

Information system means, a business application of the computer. It is made up of the database, application programs and manual and machine procedures. The use of information system in Human Resource Management is also called as Human Resource Management System or Human Resource Information System. The function of Human Resources departments is generally administrative and common to all organizations. Organizations may have formalized selection, evaluation, and payroll processes. Efficient and effective management of "Human capital" progressed to an increasingly imperative and complex process. The HR function consists of tracking existing employee data which traditionally includes personal histories, skills, capabilities, accomplishments and salary. To reduce the manual workload of these administrative activities, organizations began to electronically automate many of these processes by introducing specialized Human Resource Management Systems. HR executives rely on internal or external IT professionals to develop and maintain an integrated HRMS. Barney, (1991) states that, "Human Resource Management Systems enabled increasingly higher administrative control of such systems". In present times, Human Resource Management Systems includes: Payroll, Work

Time, Appraisal performance, Recruiting, Performance Record, Performance appraisal and Employee Self-Service etc. In Global scenario, information system in Human Resource Management is playing important role for business development and competitiveness.

Generally, traditional HRM functions are common to all organizations. They consist of tracking data regarding personal histories, family details, skills, capabilities, experiences, pay, benefits and grievances. Performance of these functions are increasingly complex, must be performed at the lowest possible cost and also at a fast rate, which pose increased challenges for HR professionals. Organizations have started to automate these functions by introducing HRIS technology. A Human Resources Information System is a system that lets you keep track of all your employees and information about them. It is usually done in a database or, more often, in a series of inter-related databases. Development of client-server HRIS enables HR executives to assume responsibility and ownership of their systems compared to client-server architecture, which came largely in the form of mainframe computers and necessitated heavy capital investment to purchase program proprietary software. HRIS is developed around six main areas of human resource management viz., e-recruitment/applicant tracking, e-training, e-payroll, e-benefits, e-self service and e-time and labour management.

The Human Resource Information System (HRIS) is a software or online solution for the data entry, data tracking, and data information needs of the Human Resources, payroll, management, and accounting functions within a business. Normally packaged as a data base, hundreds of companies sell some form of HRIS and every HRIS has different capabilities. Pick your HRIS carefully based on the capabilities you need in your company. Typically, the better The Human Resource Information Systems (HRIS) provide overall:

- a) Management of all employee information.
- b) Reporting and analysis of employee information.
- c) Company-related documents such as employee hand book, emergency evacuation procedures, and safety guidelines.
- d) Benefits administration including enrollment, status changes, and personal information updating.
- e) Complete integration with payroll and other company financial software and accounting systems.
- f) Application tracking and resume management.

Information System in HRM - The Helpful Tool For Maintaining Records

The use of information system in Human Resource Management is very helpful for superiors in maintaining records. In following ways Information system helps in records maintenance:

- a) For maintain records of attendance
- b) Records of positions held by employees and their respective pay grads
- c) Payroll information e.g.
 - a. Requested deductions;
 - b. Gross amount paid;
 - c. Amount deducted; and
 - d. Payment details such as direct bank deductions;
 - e. History and pay increment
- d) Training received in past and future requirements
- e) Record of Personal information of employees
- f) Management of 'Key employees' and their succession plans
- g) Identification of high potential employees
- h) Applicant tracking, interviewing and selection
- i) Companies may want to track things such as:
- j) The various employees who filled a position over time e.g. an employee may fill a sales representative position in one sales division, be transferred to another sales division, and be replaced by a second employee;
- k) The staffing firm that proposed the employee;
- l) The union responsible for the position;
- m) Benefits e.g.
 - a. Benefits available for employee; and
 - b. Benefits paid to the employee;
- n) Address information; and
- o) Contact information e.g. phone numbers and emergency contact information.

Anderson (2003) states that, "An effective Information System in Human Resource Management provides information on just about anything the company needs to track and analyze about

employees, former employees, and applicants”. The company will need to select a Human Resources Information System and customize it to meet requirements.

With an appropriate HRIS, Human Resources staff enables employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions. Additionally, data necessary for employee management, knowledge development, career growth and development, and equal treatment is facilitated. Finally, managers can access the information they need to legally, ethically, and effectively support the success of their reporting employees.

Human Resource Information System and Business Competitiveness

Application of information system in Human resource Management helps business organization to compete with competitors. Human resource information systems (HRIS) usage allows the human resource (HR) professional to become a strategic player. With both increasing functionality and affordability, HRIS are being used extensively in organizations of all sizes. Stanton and Coover, (2004) both have shown that the usage of information system depends upon size of the organization and its available resources. By using following ways a business organization become successful and able to compete with competitors in present scenario:

Information Systems Supporting Workforce Planning

Organization involved in long-term strategic planning, such as those planning to expand into new market areas, construct factories or offices in new locations, or add new products, will need information about the quantity and quality of the available workforce to achieve their goals. Information systems that support workforce planning serve this purpose.

Information Systems Supporting Labor Negotiations

Negotiating with craft, maintenance, office, and factory unions requires information gathered from many of the human resource information systems. The human resource team completing the negotiating needs to be able to obtain numerous ad hoc reports that analyze the organization’s and union’s positions within the framework of both the industry and the current economic situation. It is also important that the negotiating team be able to receive ad hoc reports on a very timely basis because additional questions and tactics will occur to the team while they are conducting labor negotiations.

Specialized Human Resource Information Systems Software

A great deal of software has been specifically designed for the human resource function. This software is available for all types and sizes of computers, including microcomputers. Software specifically designed for the human resource management function can be divided into two basic categories: comprehensive human resource information systems software and limited-function packages that support one or a few human resource activities.

E-recruitment / Applicant Tracking

Recent research (Chapman and Webster, 2003) shows that E-recruitment manages job descriptions and job vacancies, search for candidates and the interview process. It is also referred to as an applicant-tracking system; this is a web-based application that enables the electronic handling of organizational employment needs. These activities include posting job advertisement on web sites to stimulate and attract candidates, known as job boards. Job boards allow candidates to apply on-line and the candidates' data are stored on a database that allows searching, screening and filtering of applications. The application tracking system shortlists the candidates and arranges for interview and recruitment-related activities.

E-training

E-training provides a complete open infrastructure that allows organizations to manage, deliver, and track employee training participation in on-line or classroom-based environments. Trainees interact with content and/or trainers at their own pace. Managers set the business flow from order processing to delivery and performance management to training output automatically. E-training systems deploy content to global learners; make use of mixed media and multiple discrete sites on a single instance of the application, define competencies attained by trainees, and update the trainees' competency profiles.

E-payroll

E-payroll models automatically collect data regarding employee attendance and work record for the purpose of evaluating work performance, they calculate various deductions including tax, and generate periodic pay cheques and tax reports. Payroll modules in turn send data and accounting information to the general ledger for posting and subsequent operations and they frequently integrate e-payroll with e-finance management.

E-payroll is able to process from data, simultaneously, fully reconciled results and multiple employee groups. By preparing paperless online pay slips, the system is able to reduce administrative costs and time for the total operations. Employees too can view their exclusive data and get personalized reports.

E-benefits

E-benefits administration models enable HR professionals to track and administer diverse and complex benefit plans, employee benefit programs which may involve transpiration medical and health care, insurance, pension, profit-sharing, and stock option benefits. Internet-based automation can enable Human Resource to improve benefits support and analysis whilst reducing time and costs involved in the administration, while increasing the consistency decisions on compliance issues at various levels across the organization.

E-self service human resource

E-self service HR models collect process and manage all other kinds of data and information. Thus, individual employee and managers are empowered to update information in order to streamline business processes, reduce costs and errors, increase speed, and enhance service. This module helps employees in managing everything from profiles including skills, resumes, contact details, self-appraisal data, bank data, learning, benefits and payroll. It empowers managers to operate transfers, employee training enrollment, performance appraisals, competency mapping, career planning and development and terminations.

Strategies formulation and Information System

An effective human resource management information system must provide answers to ‘strategic questions’ such as:

- a) What positions are available within the company?
- b) What are the responsibilities for the position?
- c) What skills and experience are required?
- d) Who does the position report to?
- e) What is the pay rate for the position?
- f) What positions are filled?

Challenges Regarding Use of Information System in HRM

There are two approaches regarding using information system in HRM:

HRM challenges to Information system

In the words of Anonymous (2001), “Human resource management systems are frequently the system of record for employee information.” However, they are usually implemented as stand-alone systems that do not communicate well with other systems, which need employee data, e.g. Linking Human Resource Development with business objectives:

- a) Achieving integration between HRD process and other initiatives
- b) Creating an environment within which individuals can take responsibility for their own learning
- c) Gaining the support and commitment of line managers in the learning process
- d) Order management
- e) Shipment management
- f) Billing management
- g) Work order management.

If every application captures and stores employee data, then there is a lot of redundant processing. This increases the cost related to information management. This view has been supported in the works of Tansley and Watson, (2000).

- a) There is cost associated with synchronizing data between systems;
- b) There are additional data quality issues and costs as different systems may capture data using different rules; and
- c) There are additional data movement costs as it is necessary to load data warehouses from multi sources and to sort out which data are the correct version and the most accurate version.

Information system challenges to HRM

- a) The strategic Human Resource challenges
- b) The global challenges
- c) The information architectures and infrastructure challenges
- d) The responsibility and control challenges

Conclusion

Application of Information System in human Resource Management enables an organization to compete globally. In present scenario, there is cut throat completion in all kinds of business after liberalization and globalization. The days have gone where manual work was done in business organization. In present times, Information System is used in all aspects of business. Its use in Human Resource Management is important one of them. Human resource management information system provides data to many corporate management information systems and needs to be managed to avoid storing redundant data. There are several options for ensuring efficient information management and these options should be explored to determine cost benefits on a case-by-case basis. In the last few years, the software industry has produced several products that organize the various human resource information systems into integrated software referred to as human resource information systems, or HRIS, software.

In general, the computerization of HRIS has resulted in an integrated database of human resource files. Position files, employee files, skills inventory files, job analysis and design files, affirmative action files, occupational health and safety files, and many other human resource files are constructed in a coordinated manner using database management systems software so that application programs can produce reports from any or all of the files. Thus, the human resource management director can produce reports listing likely internal candidates for open positions by running an application program that queries position files, job requirements files, and skills inventory files. Maintaining human resource data in a variety of individual databases is less efficient than storing it in one database and having all applications access the data as needed. Alternate options to individual systems include: Enterprise resource planning (ERP), many companies have invested in ERP systems, which handle human resource management and other business functions. ERP should be evaluated to ensure that they meet business information management requirements. Redesign, some companies have made investments in an enterprise data model and new management information systems to access common data. This option is not as costly as it might appear since much of the analysis work will be required even if an ERP option is selected. Companies should complete a cost benefit analysis to compare the cost of redesign with the cost of ERP. Therefore, it can be stated that, application of Information System in Human Resource Management can change overall position of any business organization. It can make enterprise able to compete with other competitors at global level.

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