

Computerised Human Resource Information System— An Emerging Trend for Managing Human Resources

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Abstract- A Computerised Human Resource Information System makes use of computer software to manage data about movement of human resources in the organisation. This paper focuses that with globalisation and emergence of MNCs with large pool of employees it has become a necessity for the organisations to have computerised records at one place. The turnover rates, absenteeism and new recruitments taking place in the global marketplace makes it essential for organisations to have effective and efficient HRIS. Nonetheless, Information technology is expected to drive Human Resource Management (HRM) to Strategic Human Resource Management (SHRM) in coming years. This strategic role not only adds important dimension to the HR function, but also raises the competency of HR practitioners and analysts. This paper will highlight the fact that, Human Resource Information System in organizations can gain competitive advantage by leveraging on technology, therefore purpose of this paper is to analyse and compare the current HRIS of MNCs and examine the future scope of growth in HRIS.

Key Words: Human Resource Information System (HRIS), Multi-Nationals (MNCs), Strategic Human resource management System (SHRM), Computerization, Globalisation, Human resources, Human resource analysts

I. INTRODUCTION

Human resource information systems (HRIS) have gradually transformed from the time it was first introduced at General Electric in the 1950s. It has transformed from a basic process of manual information keeping systems into computerized systems, to the HRIS systems that are used today. In the late 1980s, before the "client-server" architecture evolved, every single HR automation process was done on mainframe computers because only it could handle large amounts of data transactions with high speed and accuracy. But this required huge capital investment to purchase or program proprietary software, and were limited to large organisations since, only they were able to afford internal IT capabilities. With the advent of client-server HRMS even medium sized companies could afford and authorize their HR executives to have ownership of HRIS. Gradually, to reduce the manual workload big organisations began to electronically automate many of these processes by introducing innovative HRIS technology. And there emerged the computerised HRIS for maintaining HR records. So, "Human resource information system (HRIS) is a systematic way of storing data and information for each individual employee for planning, selection, about welfare & safety, termination & promotion"

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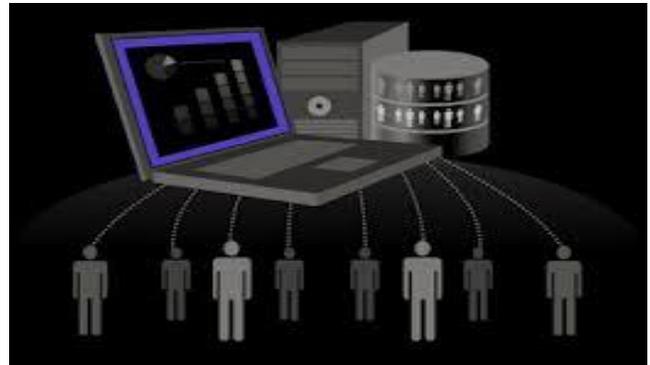


Fig.1 Computerised Human Resource Information System

II. BENEFITS OF HR INFORMATION SYSTEMS

The advantages of having a sophisticated HRIS are-

1. HRIS is monitored by qualified specialists who are well versed with technology.
2. HR functional and tactical processes can manage compliance with federal and state laws, recruitment and selection process, and produce analyses, data and reports for internal and external use.
3. Ease of use for qualified IT specialists
4. Accuracy of information
5. Ability to perform HR audits using any combination of parameters
6. Employees and managers can locate answers and information quickly without the need to consult an HR representative every time.

III. LITERATURE REVIEW ON COMPUTERISED HRIS

Tang et al. (1987) stated that the key to the effective planning of manpower and improvement of people productivity is an effective HRIS. It is only through correct data/information that an organisation can predict and make HR policies for the organisation. The research examined the impact of computer technology while maintaining HR records in terms of cost, accuracy, speed, duplication and difficulty in analyzing.

Lee and Cheung (1991) conducted a study "Human Resource Information System in Hong Kong: Some Preliminary Findings" with 202 organizations in Hong Kong. According to the study, size of the organisation determines its level of sophistication.

According to Chattopadhyay et al., 2001 environment threat pose serious problems for MNCs by therefore, they must be innovative and react swiftly by adopting new methods or processes.



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These threats could come from social and environmental pressures with the advancement in technology, leaving managers with no other options than to seek new innovations (Pfeffer, 1997).

The Human Resource (HR) function is therefore now experiencing some fast changes, in reaction to the challenges posed by this rapid technological growth. In a bid to meet up with these challenges organisations have had to involve the use of ‘information system technology’ in the conventional HR practices (Simon & Werner, 1996).

IV. COMMON HRIS PROCESSES

- Leave Application of employees
- Tracking job applicants and managing recruitment process
- Approval of workflow
- Performance Management
- Payroll
- Salary
- Employee database

V. SOME OF THE EMERGING APPLICATIONS OF HRIS

A. Personnel administration

- add new employee to company
- edit employee information
- search employee by project design and department
- enter employee code

B. Salary administration

C. Leave/absent recording

- employees cards
- Biometric system
- Email passwords

D. Skill inventory

E. Medical history

F. Accident monitoring

G. Performance



Fig.2 Biometric System: An emerging tool for obtaining human resource information

PACKAGES INCLUDE	
	PAYROLL
	EMPLOYEE RECORDS
	BILLING AND INVOICING
	LEAVE MANAGEMENT
	RECRUITMENT
	TIME KEEPING
	TASK MANAGEMENT

Fig.3 Software packages for human resources

VI. COMING TRENDS IN COMPUTERISED HRIS

1. Capturing company and employee data
2. Define company structure
3. Setting up employee data
4. What information to capture and how to input into the HR Information Systems
5. Report Generation.
6. How does data entry affect report generation



7. How to retrieve data and generate meaningful reports
8. Workforce Planning and Administration
9. Creating jobs and vacancies.

VII. REASONS FOR ADOPTION OF HRIS: FEW EXAMPLES

A. *New Technology and increasing workforce*

Terasen Pipelines moved its headquarters from Vancouver to Calgary to be closer to the oil to keep up with new technology and increasing numbers of employees. Managers at Terasen realized that there was a need to change to a more computerized system due to increasing size and complexities, since earlier recording keeping was done on paper and with spreadsheets. By shifting to HRIS system, company was able to keep more accurate records and forecasts for growth.

Another company WORKSource Inc. acquired Web-based technology programs from GHG Corporation like electronic pay, electronic timesheet software, time-off system, and human resource information system to meet the challenge of handling 100 new employees, (Tips, 2006). By adapting these new programs, company was able to reduce its wastage and cost.

B. *Increasing workforce and greater use of web*

For Example, IBM has a paperless online enrollment plan for all employees which saved 1.2 million per year on printing and mailing costs. According to Donnelly, a Senior Communications Specialist, "Since beginning of online enrollment, the company learnt that employees want web access, so they can log on at home rather than through the company intranet. So the company has been working to put in place a web-based enrollment system that employees and retirees can access from anywhere" (Huering, 2003).

C. *Change in HR operations internally*

Another company Shaw's Supermarkets in order to properly manage its workforce, the company decided to centralize the HR operations. After looking at different options, Shaw's finally implemented an Employee Self Service (ESS) system that gave HR more time to focus on strategic issues, such as workforce management, succession planning, and compensation management, improving service to employees and managers, and ensuring accuracy of data.

Employees also had online access to forms, training material, benefits information and other payroll related information (Koven, 2002). Thus, by giving online access to their personal information employees were able to update or change their information as needed. So, HR in company can focus more on core functions, increase employee efficiency and reduce costs.

D. *Changing online portal*

Toshiba America Medical Systems, Inc. placed all employee benefits information online and created an open enrollment option after changing its healthcare providers. Immediately, after the new portal was adopted company saw improvements, with an estimated 70% increase in open enrollment efficiency (Wojcik, 2004).

E. *Security issue due to loss of HR records*

Due to major security issue faced by CS Stars, LLC the company lost track of one of its computers that contained personal information containing names, addresses and social

security numbers of workers compensation benefits. The problem was that, company failed to notify the affected consumers and employees about the missing computer. Though the computer was retrieved and no information was harmed, but many employees lost their sense of security with the company.

Another company, Ameriprise Financial also experienced a breach in security due to loss of computer that contained personal information about clients and employees. The company now has a new security suite installed on their computers for security concern. It ensured employees information is kept as secure as possible and, there will be more trust in the company and the HR employees working with that information.

VIII. CONCLUSION & RECOMMENDATION

A Human Resource Information System is a software package that replaces manual, paper-based methods of inputting, tracking and recording employee information. It is organized mainly for the five main areas of Human Resource Management with employee personal records. It facilitates planning by matching right employee for the right job at the right time and in right place.

However, Human Resource Information system can be problematic for small businesses due to lack of adequate resources like funds and technology man to handle complex human resource information system. Because, it is one of the most expensive technologies to update the system and can suffer from input malfunctions or lack of applications to support the system.

Nowadays, there is an increasing demand for HRIS specialists but due to demand and supply mismatch between the manpower needs it becomes difficult to implement. With excess demand, cost to hire an HRIS specialist may be far above the average salary for a computer technology specialist.

Apart from this, HRIS also fulfils regulatory compliance for security and tracking of data for protection of personal data and timely generation of reports for submission to government agencies. Thus, computerised HRIS is a strong tool used for management of human resources for all types of organisations.

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Aishvarya Bansal: She successfully completed her educational qualifications from University of Delhi with distinction throughout. She has to her credit numerous awards for excellence in academics and extra co-curricular activities. Since very beginning she is fond of writing and research.