# Human Resource Information System

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## ABSTRACT

HRIS shape an integration between human resource management (HRM) and Information Technology. Even though these systems may rely on centralized hardware resources operationally, a small group of IS specialists residing within the personnel department increasingly manage, support, and maintain them. HRIS support planning, administration, decision-making, and control. The system supports applications such as employee selection and placement, payroll, pension and benefits management, intake and training projections, career-pathing, equity monitoring, and productivity evaluation. These information systems increase administrative efficiency and produce reports capable of improving decision-making.

**Keywords :** Human Resource, Information System, HRM, HRIS

## I.  INTRODUCTION

Human Resources Management (HRM) is the attraction, selection, retention, development, and utilization of labor resource in order to achieve both individual and organizational objectives. Human Resources Information Systems (HRIS) is an integration of HRM and Information Systems (IS). HRIS or Human resource Information system helps HR managers perform HR functions in a more effective and systematic way using technology. It is the system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information regarding an organization's human resources. A human resource information system (HRIS) is a system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information about an organization's human resources (Tannenbaum, 1990). The HRIS system is usually a part of the organization's larger Management Information System (MIS) which would include accounting, production, and marketing functions, to name just a few. Human resource and line managers require good human resource information to facilitate decision-making.

## II.  Human Resource System

An HRIS - Human Resources Information System – is a computer program that allows a company to store information about employees in an electronic way. It is generally a collection of databases that integrate together to form a vast record of all employee issues that exist within a company.  The HRIS generally includes both HR and payroll data and will store information, including:

- Employee name and contact information
- EEO information, such as ethnicity and race
- Current and past job title and status information
- Current and past salary history
- Performance Review data and scores
- Disciplinary Actions
- Benefit chooses and premiums
- Training received
- Paychecks received, amounts, and deductions
- Tax withholding information
- Child support or other garnishments in place

The HRIS system will also allow complex reporting and pulling of data that may be needed for various government reporting or for tracking employees throughout the organization.  This can include things from affirmative action reporting to budget reports by department to employee anniversary or birthday reports.

## III. Human Resource Information Systems (HRIS)

HRIS shape an integration between human resource management (HRM) and Information Technology. Even though these systems may rely on centralized hardware resources operationally, a small group of IS specialists

residing within the personnel department increasingly manage, support, and maintain them. HRIS support planning, administration, decision-making, and control. The system supports applications such as employee selection and placement, payroll, pension and benefits management, intake and training projections, career-pathing, equity monitoring, and productivity evaluation. These information systems increase administrative efficiency and produce reports capable of improving decision-making.

## 3.1 Development of HRIS

Recent developments in technology have made it possible to create a real-time information-based, self-service, and interactive work environment. Personnel Information Systems have evolved from the automated employee recordkeeping from the 1960s into more complex reporting and decision systems of late

Today, managers and employees are assuming activities once considered the domain of human resource professionals and administrative personnel. This represents a significant break with the past, but an improvement in overall organizational effectiveness. Consequently, given the authority and relevant accessible information for decision-making, both managers and employees respond more quickly to changes

## 3.2 Definition of HRIS

Tannenbaum (1990) defines HRIS as a technology-based system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information regarding an Organization's human resources. HRIS is a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by organization about its human resources, personnel activities, and organization unit characteristics. Furthermore, HRIS shape an integration between human resource management (HRM) and Information Technology. It merges HRM as a discipline and in particular basic HR activities and processes with the information technology field.

## 3.3 Users of HRIS applications
HRIS meet the needs of a number of organizational stakeholders. Typically, the people in the firm who interact with the HRIS are segmented into three groups:

(1) HR professionals, (2) managers in functional areas (production, marketing, engineering etc.) and (3) employees (Anderson, 1997). HR professionals rely on the HRIS in fulfilling job functions (regulatory reporting and compliance, compensation analysis, payroll, pension, and profit sharing administration, skill inventory, benefits administration etc.). Thus, for the HR professional there is an increasing reliance on the HRIS to fulfill even the most elementary job tasks. As human capital plays a larger role in competitive advantage, functional managers expect the HRIS to provide functionality to meet the unit's goals and objectives. Moreover, managers rely on the HRIS's capabilities to provide superior data collection and analysis, especially for performance appraisal and performance management.

## 3.4 HRIS functions

Functional HRIS must create an information system that enables an assimilation of policies and procedures used to manage the firm's human capital as well as the procedure necessary to operate the computer hardware and software applications (Hendrickson, 2003). While information technology affects Human Resource (HR) practices (Lengick- Hall et al., 2003) HRIS and HRIS administration comprise a distinct supporting function within HR. Some of the HRIS functions include the following:

### 3.4.1 Integrating the Technologies of HR

It's a fact, that developments in Information Technology have dramatically affected traditional HR functions with nearly every HR function (example, compensation, staffing, and training) experiencing some sort of reengineering of its processes. However, this process of change has created significant challenges for HR professionals resulting in the transformation of traditional processes into on-line processes.

### 3.4.2 Increased Efficiency

Rapid computing technology has allowed more transactions to occur with fewer fixed resources. Typical examples are payroll, flexible benefits administration, and health benefits processing. Though technologies of early mainframes provided significant efficiencies in these areas, the difference is that the record processing

efficiencies that were once only available to large firms are now readily available to any organization size.

### 3.4.3 Increased Effectiveness

Most often, as with processes, computer technology is designed to improve effectiveness either by in terms of the accuracy of information or by using the technology to simplify the process. This is especially the case where large data sets require reconciliation. However, onerous manual reconciliation processes may be executed faster, but also with near perfect accuracy using automated systems. For instance, pension and profit sharing applications, benefits administration, and employee activities are just to mention but a few. Using computer technology in these processes ensures accurate results and offer substantial simplification and timeliness over manual processing. Consequently, the vast majority of HR functions have had some degree of automation applied in order to gain both efficiency and effectiveness. In addition to the storing of data, the HRIS system also allows certain tasks to be completely more easily than they would be by hand, as well as reducing the amount of paper that HR departments must store. These areas include:

- **Payroll Administration** – In thecae days before a company used an HRIS, payroll could be a very tedious and long process that had the potential for many errors, as employers calculated the number of hours worked, then calculated pay due to an employee, and deduction percentages and rates that needed to be removed from a paycheck. With the use of an HRIS, this process can become a much smoother one where the payroll staff member may only need to enter the hours worked (or possibly not even that for companies that use an electronic time clock that integrates with the HRIS) and then the system will use a series of steps and procedures to do all of the calculations for the employer. Checks are then quickly printed and distributed.
- **Manager Self Service** – companies are often requiring managers to play a larger role in the management of employee and business data. Use of an HRIS can make this an easier task for both the manager and the company that needs to provide access to needed information. The manager can be giving access to portions of the HRIS that may

provide employee information, such as contact information, job title and salary, benefit choices, and other key information. Managers can be given the ability to simply view the information or be given permission to made changes that can then be routed to HR for verification before it becomes part of the employee's record. Managers can also be given access to recruiting tools, performance evaluation forms and training, task/project management tools, and business intelligence tools through the HRIS. All of this information can reduce or even eliminate the amount of paper that must flow back and forth from the department to HR.

- **Employee Self Service** – employees are also being asked to take a more prominent role in understanding, accessing and updating their HR information. An HRIS can give employees the ability to view information, such as employee handbooks and other company documents, access to forms, benefits and compensation information, performance reviews, and more. Again, employees can be given the ability to only read information or to request changes by filling out a form in the HRIS that is then routed to HR staff members.
- **Benefits Administration** – the managing of employee benefit plans generates a great deal of paperwork and data, which can be better managed through the use of an HRIS. The system can track benefit eligibility dates, trigger reports to remind HR to notify employees, allow benefit choices to be quickly inputted, and deductions triggered on the payroll side of things. All of which reduces the communication and paper flow between HR and payroll staff and reduces the likelihood of errors being made at any step in the process.
- **Workers Compensation** – this is an area that requires a great deal of data collection and management, including details about the injury or illness, which staff or witnesses were involved, what medical staff found in examinations, restrictions that are placed on the employee, and government reporting to name a few. All of this data can be easily managed within the HRIS and allow secure storage and retrieval of data as it is needed. An HRIS is a cornerstone of a successful HR department and allows the efficient and cost-effective processing and storage of the data that HR must track in order for a company to be successful. A company that is not

utilizing an HRIS is at risk for costly errors and HR staff members who are wasting time on paperwork and tracking data in ways that reduce their ability to be successful in other areas of their job.

## 3.5 Needs of HRIS

- Efficiently storing each employee information and data for reference- personal data management, pay roll accounting, benefits management and planning.
- Enabling informed decision making in day-to-day personnel issues, planning, budgeting, implementing and monitoring Human Resource function.
- Providing data/returns to government and other public
- Facilitating decision making in areas like promotion, transfer, nomination, settling employees' provident funds, retirement, gratuity, LTC, and earned leave compensation.
- Cutting costs.
- Improving accuracy

## IV. Human Resources Management System India (HRIS)

**MYHRMS The complete solution for every HR functions. The main goal of this product is "Human Resource Management." Human resource management is not just doing the paperwork for company's "Human Resources" but it always includes the innovative and creative decisions for the company by utilizing the "Human Resource Information System" in efficient manner and that's what this product is doing.** There are the complete functions of MYHRMS (Human Resource Management Software) Application.

This product is complete solution for every HR functions. Most HR professionals spend their 70-80% time in operational activity which delays some important strategic decision making processes. By using this product, HR professionals can reduce their operational activity and take strategic decision effectively.

This product is web based management portal so that you can manage your HR functions within the organization as well as outside organization [from anywhere in the world]. and developed in such a way so that you can

deploy this product in intranet / internet and VPN environment.

This product is Multi Company, multi location and multi user security Web based software, and developed for 50 users [but you can extend the count of user's upto 10,000] and can be extended up to 10,000 users. So this product will be affordable for small scale environment as well as for large scale corporate environment.

It provides facility to generate the various types of reports as per your requirement and allows exporting the report data into .XLS or PDF format. These reports are generated by doing survey of real-time practices done by various corporate companies. Based on this report, company can utilize their human resource in efficient manner and evaluate employee's performance and that's call efficient utilization of "Human Resource".

## V. Review of Literature

**S.C. Aggarwal (2001)** discussed that the issues and concerns faced by nine Indian organizations in implementing and managing HRIS. The organizations are diverse in terms of size and sector that they belong. The critical success factors and weaknesses in various stages of implementing an HRIS are explored in the paper. The problems are rooted in mainly two factors. One is the fact that HR department lacks knowledge about HRIS and hence is not able to clearly elucidate the requirements of the system. Poor need assessment is a continuation of this problem. Second is the lack of importance given to HR department in the organizations? The spectrum of cases covered shows the clear variation in terms of the success of implementation.

Sadri **and** Chatterjee **(2003)** found that the basic objective of this paper lies in establishing the importance of the Human Resource Information System (HRIS) in building organizational character and in the effective administration of human resource management. An underlying objective of the paper is to develop an awareness of the implications of HRIS in strengthening Organizational Character (OC).

**Hussain et al., (2004)** studied 'the use and impact of human resource information systems on human resource management professionals'. The aim was to assess and compare the specific areas of use and to introduce a taxonomy that provides a framework for academicians.

They also sought to determine whether HRIS usage was strategic, a perceived value-added for the organization, and its impact on professional standing for HR professionals.

**Florkowski (2006)** in his study, 'The diffusion of human-resource information technology innovations in US and non-US firms', evaluated the diffusion of eight information technologies that are transforming HR service-delivery in North America and Europe. Such information technologies include HR functional applications, integrated HR suits, IVR1 systems, HR intranets, employee and manager self-service applications, HR extranets, and HR portals. The study applied external, internal, and mixed-influence models of Human Resource Information Technology (HRIT) - adoption decisions of cross-sectional sample of US, Canada, UK and Irish firms.

## VI. Objectives

Understand various management information systems operating in an organization particularly in the Human Resource Management functional area and explain its relationship with the various other activities of the organization.

## VII. Data Analysis and Interpretation

### 1) HRIS play any role in strategic HR tasks.

| To great extent | Nominal | Not at all |
|:---:|:---:|:---:|
| 7 | 3 | 0 |
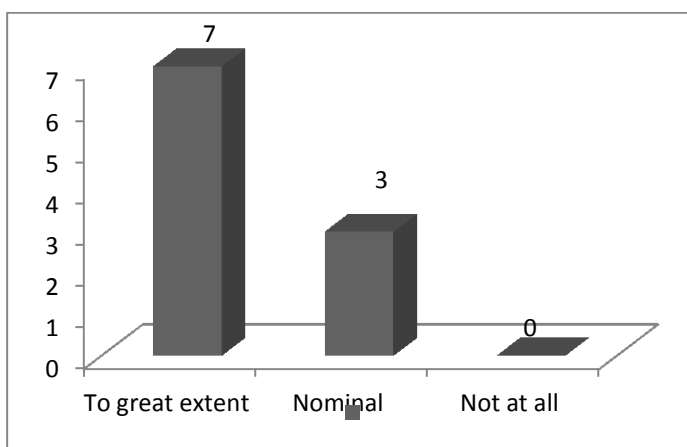


**Source:** Primary Data

To know the extent of importance of HRIS, respondents were asked this question. Consequently, 7 respondents nodded in favour of HRIS, 3 respondents industries hesitatingly exceeded its worth. None declined the worth in the present scenario.

### 2)   Any other HRIS modules installed previously from its commencement.
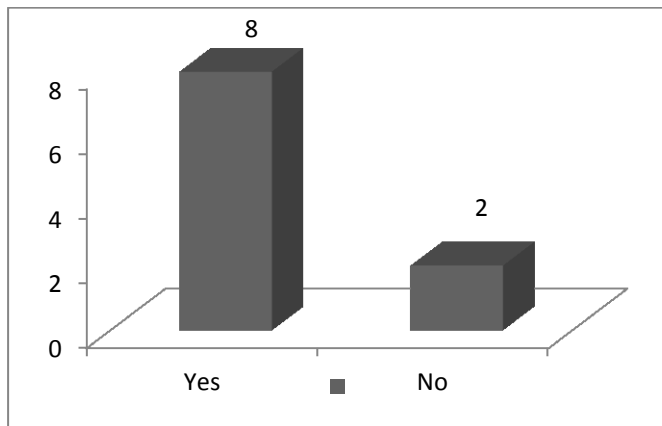
| Yes | No |
|:---:|:---:|
| 0 | 10 |
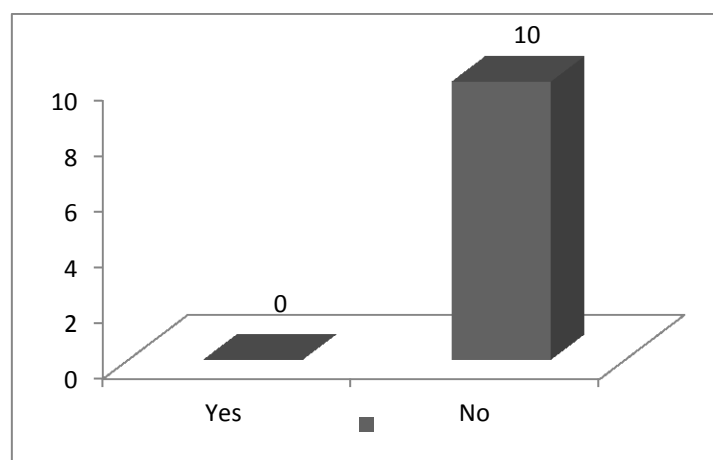


**Source:** Primary Data

When it was asked from the chosen industries, it was observed that none of the industry has installed HRIS from its commencement; however it was installed later on.

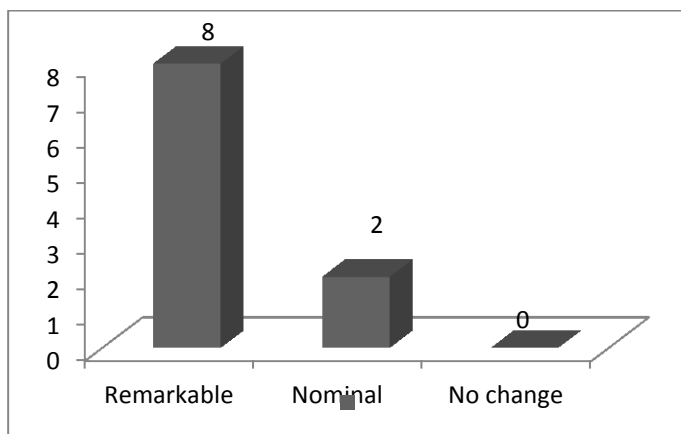### 3) HRIS are used in support of strategic HR tasks.

| Yes | No |
|:---:|:---:|
| 8 | 2 |

Survey enunciated that 8 respondent industries admit that HRIS is used in most HR strategic tasks, whereas, 2 respondents industries don't accede this fact.

**4) Rate your professional standing in the organization after using HRIS.**
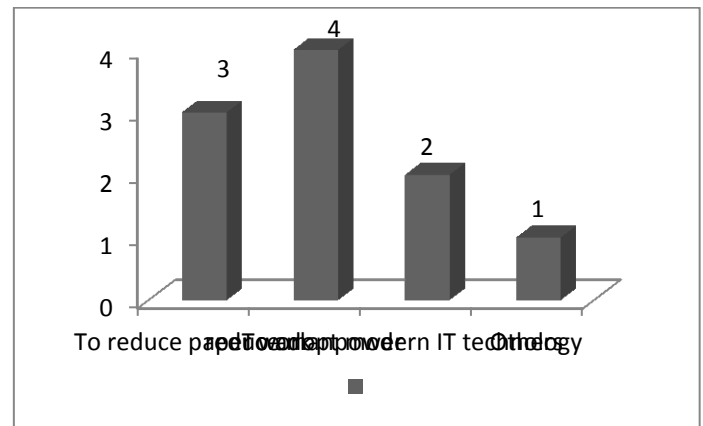
| Remarkable | Nominal | No change |
|------------|---------|-----------|
| 8 | 2 | 0 |

When the cause of need was tried to explore, 4 companies industries installed HRIS to reduce manpower, 4 did so to reduce paper work, however 2 industries installed HRIS to walk simultaneously with the IT Technology and 1 had its respective reason.

**6) Installed HRIS/SAP modules in your organization.**

| Less than 1 year | 1-3 years | More than 3 years |
|------------------|-----------|-------------------|
| 4 | 2 | 4 |

There are increased IT support activities, and that there is positive correlation between more IT and HR tasks automation. 'HR professionals' rely on the HRIS. Thus, for the HR professional there is an increasing reliance on the HRIS to fulfill even the most elementary job tasks'

**5) Need for installation of HRIS modules.**

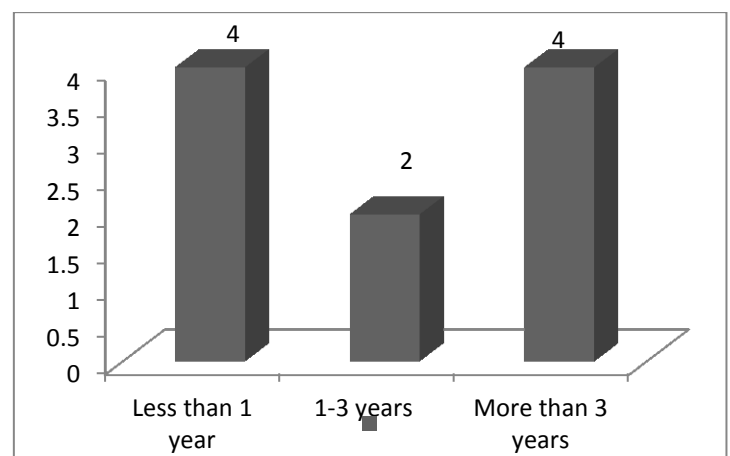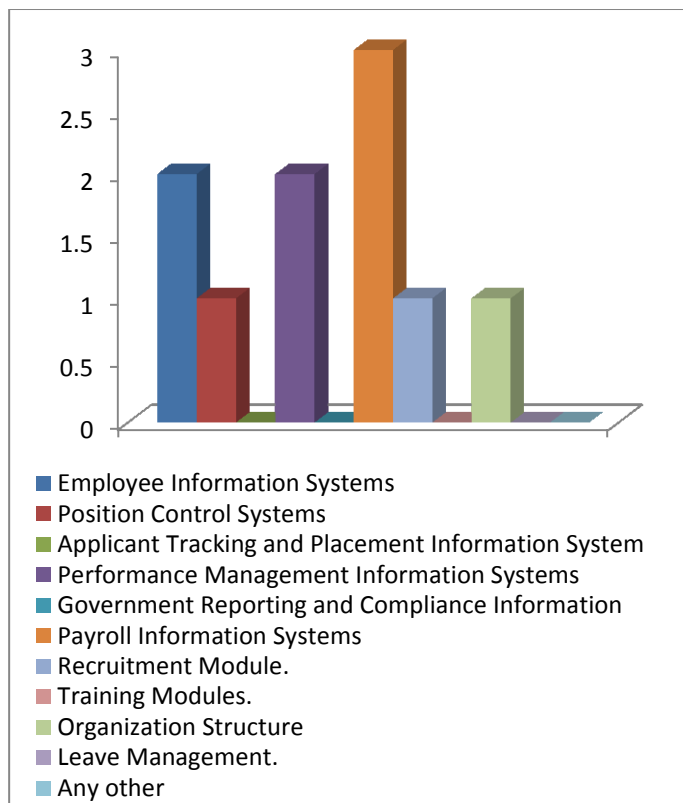| To reduce paper work | reduce manpower | To adopt modern IT technology | Others |
|----------------------|-----------------|-------------------------------|--------|
| 3 | 4 | 2 | 1 |

When the cause of need was tried to explore, 4 companies industries installed HRIS to reduce manpower, 4 did so to reduce paper work, however 2 industries installed HRIS to walk simultaneously with the IT Technology and 1 had its respective reason.

**7) Operational HRIS/HRMS/SAP modules.**

| Employee Information Systems | 2 |
|------------------------------|---|
| Position Control Systems | 1 |

| | |
|---|---|
| Applicant Tracking and Placement Information System | 0 |
| Performance Management Information Systems | 2 |
| Government Reporting and Compliance Information | 0 |
| Payroll Information Systems | 3 |
| Recruitment Module. | 1 |
| Training Modules. | 0 |
| Organization Structure | 1 |
| Leave Management. | 0 |
| Any other | 0 |



- Employee Information Systems
- Position Control Systems
- Applicant Tracking and Placement Information System
- Performance Management Information Systems
- Government Reporting and Compliance Information
- Payroll Information Systems
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- Training Modules.
- Organization Structure
- Leave Management.
- Any other

**Source:** Primary Data

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## VIII. Findings

- The results revealed that there is a strong support for the statement that HRIS plays a major role in strategic HR tasks. The findings are consistent with the organizations' increased reliance on the use of HRIS in support of strategic HR tasks, and HR professionals' higher professional ratings after using HRIS.
- Significant difference in the proportion of users from Small Scale Industries and large companies who use HRIS in support of human resource development.
- There is evidence that HRIS are used in support of strategic HR tasks. The findings are consistent with the organizations' increased reliance on the use of HRIS in support of strategic HR tasks.

## IX. Conclusion

Whilst this study has confirmed existing studies into HRIS, it provides a platform for future work in this area, which should concentrate on a number of issues. First, a detailed research would be needed to explore the role of HRIS especially; with much, bigger sample size and a higher response rate so that a deeper analysis can be done for generalization.

As HRIS becomes an increasingly vital component, researchers must expand their efforts to understand the opportunities and threats that it fosters. Human resource information systems may be a key enabler for the industries to balance successfully the competing roles of administrative expert, employee champion, change agent, and strategic partner.

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