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Strategic Human Resource Information Systems

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1. History Overview

In the past, the personnel will do their paperwork manually (manual recording practices). However, as paperwork requirements grew, and the organisations needed more and more information about their employees, there is a need to use the computer-based management information system that getting data and information of the employees to be assessed. In this case, the state-of-art system was introduced and implemented to the organisations.

According to Raymond (1998), the status of personnel data was becoming more important due to the development of government laws and regulations through the Equal Employment Opportunity (EEO), Affirmative Action Program (AAP), and Occupational Health and Safety Administration (OHS). Because of these organisation needed to provide the reports showing that the personnel practices complied with the laws. Thus, there is a need to use the computer-based system to provide accurate information effectively and efficiently to the national government with statistics or data that are readable.

2. Introduction/ Abstract

All organisations need to keep records about their personnel, for instance, to comply with taxation requirements, for use in emergencies and as the basis for making decisions about the work their personnel perform. These organisations have a human resources function that handles the personnel's records. The ideal system that is used in managing the personnel is called the Human Resource Information System (HRIS).

3. Definition of HRIS

A HRIS is the system used to acquire, store, manipulate, analyse, retrieve, and distribute pertinent information regarding an organisation's human resources (Michael et al, 1990, p.29). It is an organisational tool for preparing relevant information for the users and managers to assist with their decision making about human resources of an organisation.

The HRIS includes people, format forms, policies and procedures, and data of the organisation. The prospect of the HRIS is to provide an easy access and service from a series of data to a readable and understandable information to the users. The information that is provided may facilitate any users especially the operational and managerial levels of the organisation to review the personnel's performance, and in any important decision making.

The effective use and benefits of HRIS to the users in obtaining the information will be very accurate, relevant, prompt, and available when needed for making any managerial decisions for the organisation in a short period of times.

It would suggest that the manager must ensure that the HRIS contributes to the attraction, development and motivation of human resources for the organisation. All managers in the organisation need to make use of their organisation's HRIS so as to provide a powerful competitive edge.

4. Key Questions to Consider

Goal-setting requiring activities may be valuable to managers in bringing out the best performance from HRM. It would suggest that, managers can use the following questions for this purpose so that he or she will know what are the first hand objectives for the human resource management:

- What is the information about employees to be used for?
- What data about employees should be gathered and kept?
- How can the data be manipulated to add maximum value?

- Who needs access to information about the organisation's employees?
- What is the continuing role of Human Resources Management (HRM) in relation to Human Resources Information System (HRIS)?

5. Effect of HRIS on HRM

Use of HRIS information in decision making and reporting – it is important to note that different users will have different understanding of what the system is about and of its use to the organisation. It would suggest that the HRIS has been compared with a pyramid (Organisational Level of Management, refer table 1) which it showed that:

- The base consists the transaction processing level, which related to the processing of basic personnel records.
- The second level consists the management information areas where the most likely use is the generation of regular and ad hoc reports.
- Corporate level of management relates to data that can be used for strategic planning and decision support.

Table 1: HRIS on Organisational Level of Management

Corporate Level of Management	Management information for strategic planning, policy formulation and decision making	<ul style="list-style-type: none"> • Summary reporting • Projections • Manpower planning
Second Level of Management	Management information for tactical planning and decision making	<ul style="list-style-type: none"> • Summary reports and generation of ad hoc reports
Third Level of Management	Management information for day to day planning decision making and control	<ul style="list-style-type: none"> • Regular reports and generation of ad hoc reports
Operational Level of Management	Transaction processing and general inquiry facilities	<ul style="list-style-type: none"> • Basic system process like personnel records

Information concerning an organisation's employees should be used for decision making in every area of employment. Most HRIS include some combination of the following activities:

- Equal employment opportunity affirmative action
- Health and safety
- Human resource planning
- Payroll (Wages and Salaries)
- Personal Details
- Performance Management
- Recruitment and employment
- Training and development

There are a large amount of software that are available and design specifically according to the needs of the particular department so as to support the HR function. Some of the software or information systems that are being used in an organisation that served and offered different usage in HRIS. We may discuss a few which are listed as below:

Employee information system: A set of human resources profile records that contains personal and organisation-related information, such as name, address, sex, year of services, education and training, previous experience, salary rate and other personal information. By using this employee information system will allow the manager to identify the percentage of employees who will be of retirement age as the recruit young personnel to fill the positions vacated by retirements.

Performance management information system: This system includes the performance appraisal data in terms of how the performance was measured and reported. Thus, this can lead to a number of decisions to retain, promote, transfer, or terminate a single employee. Moreover, this system can identify whether the staff has certain specialties or expertise in certain areas, if not, training program can be developed for the staff so as to improve their skills in a particular area.

Payroll information system: This is a system that recorded and concerned with staff pay rates, wage classifications, accuracy of tax calculations and other deductions and monitoring of compliance with company policies that concerning pay and benefits. In addition, the system needs to provide accurate data to the general of the firm.

The HRIS is a system that help the users to analyse the data necessary for them to make certain decision properly. However, the decision making still handled by people, not by system itself.

There are three steps (refer table 2) to generate the manual documentation into a readable and a presentable report for the managers. Managers are using that piece of information or reports to assist them in any way in decision making, especially to manage the human resources.

Table2: HRIS's procedure

Step 1: Inputs	The system is a set of activities that allow the users to enter the employee's personal information into the system itself. Of course, the information that is entered to the computer is from the hand written document.
Step 2: Transformations	This input information that we have entered into the computer or the system will change into something more useful to the organisation. It takes less time consuming to produce the outcome. For instance, the payroll information system may transform the hours worked into a calculation of salary pay or other tax calculations.
Step 3: Outputs	The output for the employee in terms of the payroll system that we have used and entered the information may produce the paycheck to the employee. At this stage, the output must be available in a timely manner, accurate, and readable.

Source: Adapted from Michael L.G. 1991.

6. Employee Data on the HRIS

Just to collect and maintain the essential data on employees is a big task. To get into more complex things like analysing absenteeism rates and trends that requires significant thinking, effort, and information.

Consider the following list of information headings that are needed and gathered out of over 100 elements of data to be collected, stored, maintained, sorted, and analysed from the staff of the organisation:

- Personal details e.g. names, birth date, tax file no, and home address.
- Location of position in the organisation, especially for large organisation.
- Details of present job (job description and specification) e.g. title of the job.
- Salary and benefits details.
- Education and professional qualifications.
- Formal training, including attendance at seminars.
- Skills inventory, including on the job training, personal interests and pre-employment skills.
- Job history in the organisation, e.g. previous job grades and periods of employment.
- Performance in the organisation, as assessed and commented upon by all previous managers.
- Details of separation from the organisation, including reasons for the separation.

7. Manipulating Data for Maximum Added Value

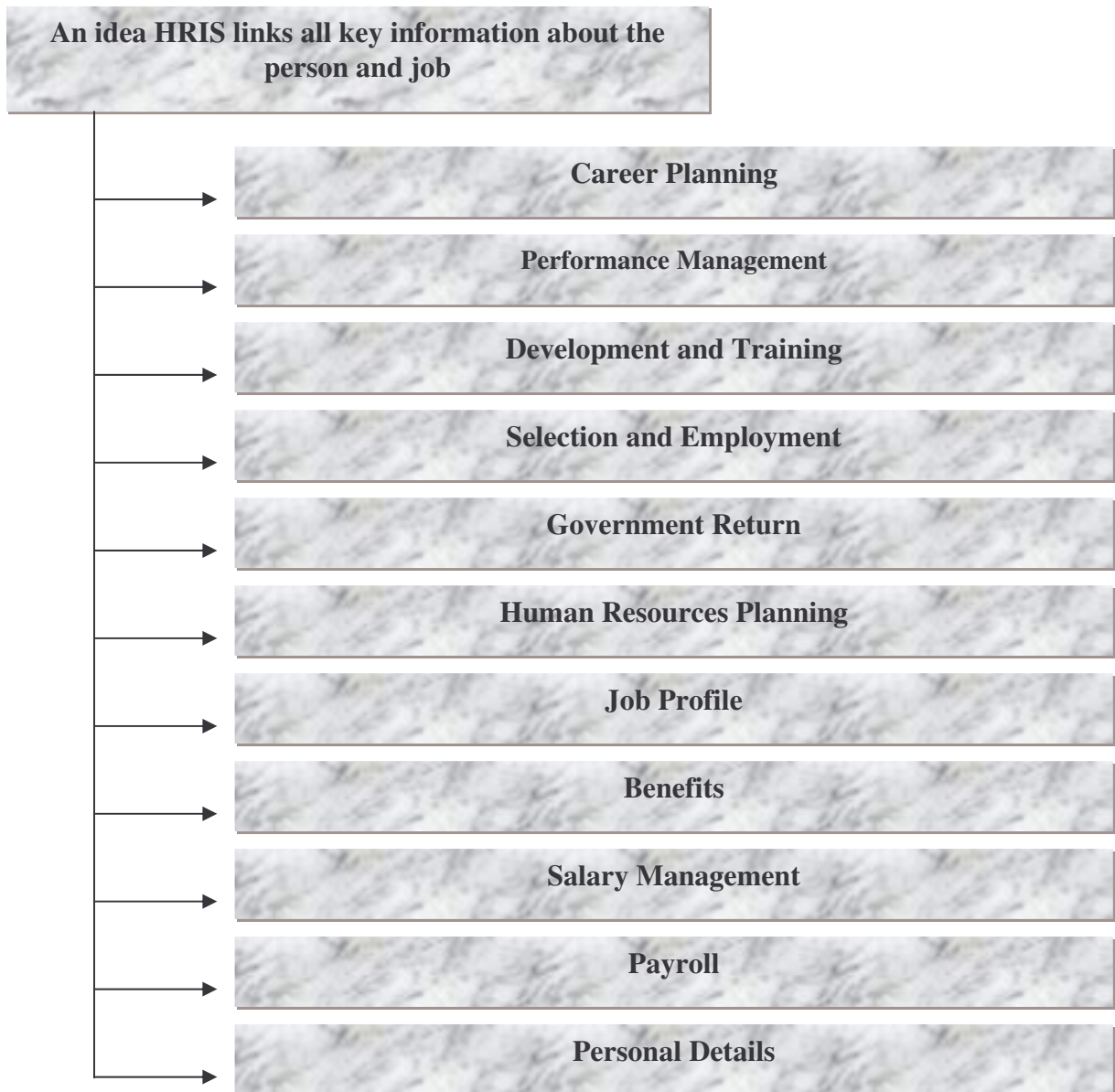
If you accept that the primary objective of any HRIS is to obtain and process useful information so that manager can make appropriate decisions about each and every employee, then the maximum added value comes from:

- Providing what the manager want – up-to-date information.
- Provide a complete picture of the problem and possible offer alternatives solutions.
- Information must be easy to understand and read.
- The information is better to consistent in format.

Appropriate decision is based on the manager's knowledge and assessment of the employee, supported by facts and evidence from experience and other sources, including the HRIS. Managers who know their staff well are most likely to make appropriate decision.

The following diagram (refer figure 1) provides an overview of the types of information from the HRIS may assist with and link with other human resource systems.

Figure 1 System that link with HRIS



There are four typical competitive goals pursued by the organisations in adopting the HRIS that relate to other organisation's functions. They are:

- The quality of the outcome (reports)
- The cost of the system
- Delivery of the analysis

- Flexibility to use the system

With the use of HRIS and human resources practices is examined in relation to the company's success in achieving competitiveness.

8. Access of Personnel Information

The HRIS is not an open system in any organisation, therefore, only for these people who need to maintain the data or need to view the information for decision making or reporting purpose should have the access of the personnel information.

According to Michael (1991), the HRIS must meet a number of basic requirements in terms of the access to the personal records of employees in an organisation. They are listed as below:

- It must be an on-line system.
- Users must properly trained to use HRIS
- System must include an effective report generator.
- Confidentiality of data must be safeguarded and the use of the password.
- Data within the system must be easily accessible. Essential keys for retrieval are the personal number and employee name.
- Different managers at different management levels must have certain access of the information.
- Defining clearly and limiting user authorisation, verifying that person is the actual person who authorised to use the system.

There are a large number of people who will be directly affected by the implementation of a HRIS, which is a state-of-art system or technology that assist in anyway in human resources of an organisation. According to Michael et al (1990), people who involve in the implementation of HRIS are called stakeholders. This is because they have a stake in assisting the system to run effectively and efficiently.

Different people have different expectations of their outcomes by generating the HRIS. Their needs are different based on their department and job requirements. In this case,

there will be conflict between the system designers and the other group of stakeholders in terms of needs and expectations. Figure 3 shows the different expectation from different group of stakeholders in regards to the use of HRIS in the company.

Figure 2: Differing Expectation of Stakeholders

Stakeholders	Expectations
System Designer	Is the system elegant? Was the system challenging to design?
HR Users	Is the system easy to use? Is the system well documented? Does it provide timely information?
Managers	Does the system aid in managing? Does it reduce administrative paperwork? Are reports accurate and timely?
Employees	Will any personal information be kept private? Will the system control me?
System Operations	Is the system easy to operate? Is the system easy to maintain?

Source: Adapted from Michael et al. 1990, p. 189.

Since the different group of stakeholders has different needs and expectations according to their job requirements. The training program for each of the stakeholders or user will be different. For instance, some users will need to be trained in report generation and others on the actual operation of the system. In other word, training needs will offer to different groups.

9. Continuing role of HRM in relation to HRIS

By using the state-of-art system in an organisation does not mean that the role of the human resource managers will decrease in importance whereas they shift to a greater emphasis on strategy and decision making (using the information to enhance quality of business decisions).

Following by the information that are generated and obtained from the HRIS will facilitate the human resource managers to involve themselves in the strategic planning process. The system will provide possibly alternatives for the solutions and may predict certain possibility that will occur in the future. Furthermore, HRIS will integrate the human resource information along with the information from other function (e.g. Marketing, Finance, IT, Operational etc), will produce a clearer picture of the overall functioning to the operating and managerial levels of the organisation.

The HRIS facilitate the human resource managers by providing the reports or information that are needed in a much easier and less time consuming manner. This will allow the human resource personnel to work closely with other. Moreover, the human resource personnel will move themselves toward the consulting role and the good governance, using their internal consulting skills and knowledge to assist the organisation in analysing the information with the help of HRIS.

The human resources department experiences the changes and restructuring of using the HRIS. This is because the relationship of human resources department to other groups will shift to decentralisation in the area of management. The use of HRIS will make information more readily available at all levels of the organisation. However, it improves the communication links and user interfaces within the organisation.

However, when the decentralisation is occurred, the centralisation focus is occurred and remained at some areas such as the Compensation Management, Payroll, Benefits Administration, and Government Reporting. The Reason behind this will be the government regulations in this particular area that make it unlikely to comply in decentralisation focus.

When the human resource practices meet the human resource information system (the new technology), there are a new roles for human resource management. The purpose of today's human resource management software packages is to present the network to the human resources so and to allow the organisation can deploy to cope with problems.

10. Conclusion

The details of this paper are guideed manager to summarise the overview elements of the HRM, and to demonstrate the consistency between the overall HRIS. The detail of this paper also consist of the explanation of how employee data located on the HRIS, manipulating data for maximum added value, who need to maintain and view the data, and continuing role of HRM in relation to HRIS.

Overall, HRM and HRIS requires personal discipline, commitment, and sacrifice. Successful implementation hinges upon human resource managers' ability to maintain performance and change, which are necessarily more extensive when information system to be implemented rather than the past in order to meet the good governance.

11. References:

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