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RESEARCH ARTICLE

HUMAN RESOURCE INFORMATION SYSTEM: A QUALITY CONCEPT.

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Abstract

Human Resource Information System (HRIS) is a Human Resource Management (HRM) tool that enables an organization to design and manage a comprehensive human resources strategy through information technology. HR information system helps to identify potential employees, make them competent, maintaining complete records on existing employees and creating programs to develop employee skills and talents. In this whole process a quality full data is required by HRIS to perform human resource functions.

Quality of Human Resources (HR) or materials makes it valuable and competent. Quality decisions come from quality information. That information needs to be valid, reliable, right time and complete. HRIS qualities determine human resource activities in a proper, systematic and scientific manner. Data quality of HRIS provides accurate, timeliness and compact support in routine and repetitive human resource decisions. This paper describes quality concept of Human Resource Information System.

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Introduction:-

Human Resource Information System (HRIS) is a system which assists HRM functions through information technology. Human Resource is one of the key activities of any organization (Al Shibly H., 2011). Organizations productivity increase by using HRIS because it process collected information in to meaningful aspects. HR Information Systems are designed to be flexible and transparent amongst HR managers and top management, so that they can quickly view and update employee status according to organization hierarchy. This system provides HR Information to manage employee database (Bourini F., 2011).

HRIS can support long range planning with information for labor force planning and supply and demand forecasts, staffing with information on equal employment, separations and applicant qualifications, and development with information on training program costs and trainee work performance (Kadhim R., et al, 2012). In this programs quality information improve its efficiency. HRIS also support compensation programs, salary forecasts, pay budgets and labor/employee relations with information on contract negotiations and employee assistance needs (Madapusi A., 2008). For performing these activities of HRM requires quality assurance plan and system during data collection process for HRIS.

Data quality describes the state of data, the set of processes to achieve such a state and data accuracy. For data to be fit for use, they should be free of duplications, misspellings, omissions and unnecessary variations, and should conform to a defined structure (Chapman, 2005). Data quality addresses:

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- Accuracy
- Precision
- Timeliness or currency
- Completeness
- Consistency and Relevance

Accurate data is a measure of the extent to which the data reflect reality. *Accuracy* refers to closeness of measured values, observations or estimates of the real or true value. *Precision* refers to the consistency of an indicator in producing the same results. *Timeliness* refers to availability of data when required. *Completeness* refers to all eligible data are included. *Consistency* describes the absence of apparent contradictions and is a measure of internal validity and reliability. These qualities are complements of HRIS in HRM. Therefore The basic purpose of HRIS is insurance to an adequate information base for decision making process, development of a selection program, education, training, promotion, career planning, communication, analysis of working abilities of employees', complying working claims with individual skills (Ngai and Wat, 2006).

HRIS Quality Concept:-

The concept of HR information quality is hierarchical in nature. The hierarchy consists of data of personnel, information management and knowledge accession. The main issue in information management and technology is to ensure that the right person uses the relevant information in a timely manner. Measures of information quality focus on the output produced by a system and the value usefulness or relative importance attributed to it by the user. (DeLone and McLean,2003). The main characteristics of information quality including: accuracy, precision, currency, output timeliness, reliability, completeness, conciseness, format and relevance. (Obeidat B., 2012)

Measure of system quality focus on performance characteristics of the system this principle refers to the technical details of the information system interface (DeLone and McLean, 2003). In identifying the nature of information, the following figure describes quality attributes of valuable information.

Raw data of employees:-

It could be impossible to derive useful information on the basis of data that is of inferior quality. So Data must be accurate, complete and confined.

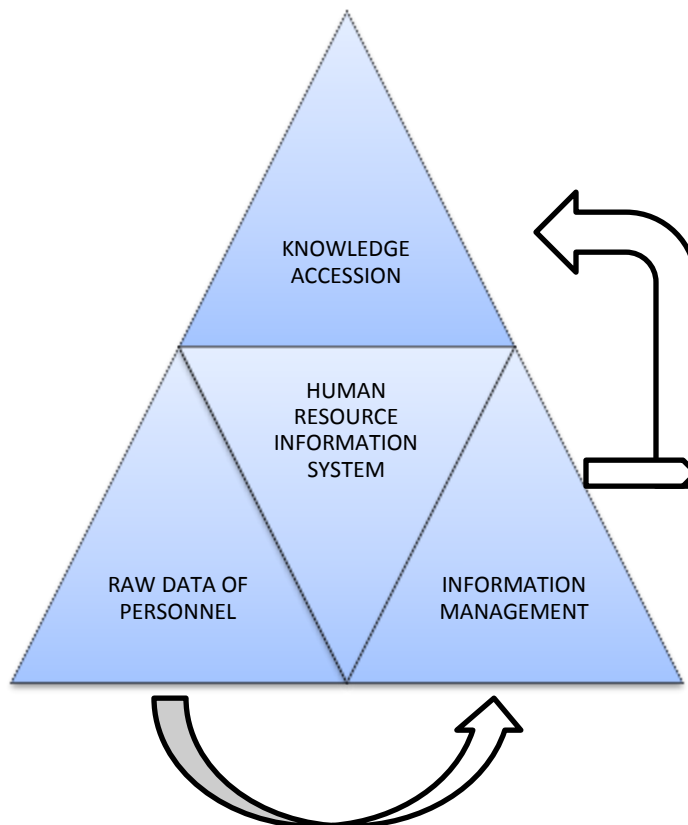


Fig 1:- HRIS QUALITY CONCEPT (Developed by own)**Information management:-**

From the raw data, accurate and compiled information are gathered. This information use to analyze different aspects as per the requirements. This information provides quality results and basic platform of human resource information system.

Knowledge accession:-

The outcomes provided by information analysis helps to establish a complete HRIS. Consequently decision making, policy implementation and knowledge sharing become easy in the organization.

In this context, the intention was to establish a conceptual framework for evaluating the impact of HRIS data quality on utilization and usefulness (Mayfield *et al*, 2003). Amongst other variables, Information System models revealed that success is a function of the perceived quality of the information provided by the system (Sabherwal *et al*, 2006; Delone & McLean, 2003; Seddon, 1997).

Organizations that seek to maximize and enhance their investment in Human Resource Information System should implement data quality improvement initiatives. This will lead to ensure that the system is effectively and efficiently utilized and produces high quality information for processing and decision-making. This could also lead to competitive advantage. Further research could be undertaken to understand;

- factors of Success for HRIS data quality initiatives,
- Determinants of HRIS user satisfaction level,
- Drivers for HRIS management roles dedication and
- The impact of having HRIS manager in organizations.

Information quality, either perceived or actual, has been found to influence continued system usage and user satisfaction (Wu & Wang, 2006). System usage and user satisfaction are regarded as primary Information System success measures, from the users' perspective (Hong *et al*, 2008; Medina & Chaparro, 2007). In addition, information is derived from raw data, thus asserting the case for data quality management (Lillrank, 2003). Thus information qualities play a crucial role to process data and making effective decisions in Human Resource Information System. Quality HRIS is mainly base for achieving organizational goals due to the above information quoted and stated. Since human resource is organization's most valuable asset, satisfied employees are pre condition for satisfied customer (Poloski, 2007).

Data quality dimensions:-

Data quality could be better understood in terms of dimensions. Quality dimensions fall into four categories of *intrinsic*, *accessibility*, *contextual* and *representational* (Strong, Lee & Wang, 1997). Data quality categories and related dimensions are shown in below table

Data quality category	Data quality dimension
Intrinsic	Accuracy, objectivity, believability, reputation
Accessibility	Accessibility, access security
Contextual	Relevancy, value-added, timeliness, completeness, amount of data
Representational	Interpretability, ease of understanding, concise representation, consistent representation.

Table.1 Data quality categories and dimensions (Strong, Lee & Wang, 1997).

In given table all aspects and qualities of data can be describe in following ways

1. **Intrinsic:** Complete and real data always provide a true base for analysis. This data quality category is concerned with aspects such as correctness and believability.
2. **Accessibility:** Use of data is concern of security too. Accessibility refers to the ease of access as well as data security. This protects from unfair means.

3. **Contextual:** Data relevancy is necessary at the time of collection. In the word of Lillrank Contextual dimensions refer to the relevance of data to the intended user (Lillrank, 2003).
4. **Representational:** A complete and concise interpretation and generalization of the result make analysis more significant and valuable. This dimension refers to the ease of transforming data into useful information.

Data stored in Human Resource Information System should meet these quality requirements in order to add value to the organization. Poor data quality could have a negative impact on user attitudes towards the information systems and anticipated benefits (Swartz, 2007). Most of the Organizations select the data quality dimensions and associated dimension thresholds based on their business context, requirements, levels of risk etc. It is noted that each dimension is likely to have a different weighting and in order to obtain an accurate measure of the quality of data, the organization will need to determine how much each dimension contributes to the data quality as a whole.

Hris Implemetation:-

The effective implementation of HRIS requires re-engineering of business processes, which is not easy to adopt by Human Resource Department. The usefulness of an HRIS is subject to its users. There are two types of HRIS users:

- (1) HR professionals who manage the HR function, and
- (2) The end users of the system.

These are two users who decide and determine the adoption of HRIS. It is very important to view the implementation of HRIS as a whole to ensure system integrity. The implementation of HRIS encountered a number of challenges that affected its acceptance by its users some of which include:

1. **Culture:** Organizational Culture encourages to adopt HRIS on data management, data processes and data use.
2. **Data collection mode:** To ensure collection of quality data shifting from collection of aggregate data to Facilities-level and staff-level data
3. **Quality improvement efforts:** A proper system should be exists in organization to improve data quality if it is not up to the marks.
4. **Adoption:** Interest to Adopting new data management technologies and processes
5. **Changes:** Managing daily changes in the human resource data required as per demand.
6. **Update:** Timely and reliable information of HRIS should update time to time.

Moreover, Ruel (2004) in their paper identified six environmental characteristics that influence HRIS implementation; these are competition, technological development, HRM state of art, labor market, societal developments and governmental regulation. Other than these factors, it is stated that in a transnational organization the HRIS is influenced by factors such as institutional and cultural host-country environment (Dowling, Festing, & Engle, 2008). The overall implementation of HRIS will be effective until its quality will be competent and valuable.

Conclusion:-

HRIS success is affected by HRIS satisfaction, which is influenced by perceived HRIS quality, perceived HRIS ease of use and perceived HRIS usefulness. HRIS Data quality is best defined as “fitness for use” for decision and policy making. Accuracy, timeliness, consistency, precision, completeness and relevance are all measures of data quality. Good quality of HRIS assists the HR department in making the HRM process easier, faster, cheaper, and more effective as well as it benefits the organization to greater success. The information quality of HRIS makes it more valuable to users by providing them with up to date, complete and detailed information to assist their decisions and by providing them with easy to understand information that is relevant to their work.

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