The Implementation of Human Resource Management Information System

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Human resource management has begun to conduct information technology to enhance the efficiency of human resource work. The research objectives are: (1) Does the implementation of human resource management information system enhance work efficiency? (2) What are key factors to influence the implementation of human resource management information system? This research adopts case study with in-depth interviews at W University of Science and Technology. The interviewees of this study were mainly one director and four staffs working at the Department of Human Resource. The research results show that the system quality is acceptable and the system security is perfect. All users have consistent opinions on the bad quality of information and they spend more time to check the data at work. The system use frequency of each user is different, mainly depending on the content of their work. Users who are used less have higher user satisfaction in human resource management information system. Most users perceive that the personal benefit is increased, and feel that this system can enhance personal benefits and improve the organization benefits for personnel management.

Keywords: human resource management, system quality, information quality, personal benefit, organization benefit

Introduction

Nowadays, when information technology and Internet are prevalent, most companies are beginning to pursue speed and efficiency. They fear that it will be eliminated by the E-trend, so whether it is corporate or academic organization is concerned about the hot topics related to E-business. The implementation of information technology changes the company physique and efficiency, and greatly enhances the competitiveness of the company. The basic focus of E-business is the internal infrastructure of the enterprise, including software and hardware, such as internal information system of software facilities and the network of hardware facilities (Kumar & Hillegersberg, 2000). Human resource management has also begun to conduct information technology to enhance the efficiency of human resource work.

The organization's human resource management practices can be divided into four parts: (1) human resources management: manpower specification, appointment management, and work research, etc.; (2) human development management: education and training, performance appraisal, people's interests, and future development, etc.; (3) human compensation management: salary management, welfare measures, and labor

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conditions, etc.; (4) human maintenance management: interpersonal relationships, labor relations, discipline management, and separation management, etc. (Huang, Cao, Huang, Chang, & Wang, 1998). The resources invested in the business are all used by different members of the organization through various tasks, and present the effectiveness of the business. Therefore, human resource management of enterprise is like a tire of a car. Without it, enterprises will not be able to operate. In addition, if human resource does not manage well, it is difficult for business operations to achieve operational objectives (Allee, 1997).

The research is used case study at W University of Science and Technology in Taiwan. After implementing human resource management information system, the study tries to explore the users' usage and performance and options with in-depth interviews in Human Resource Department. The research objectives are (1) Does the implementation of human resource management information system enhance work efficiency? (2) What are key factors to influence the implementation of human resource management information system? The research results are proposed specific and feasible improvement suggestions and directions.

Literature Review

Human Resource Management Information System

The human resource management information system refers to the establishment of information systems through computerized transformation processes to achieve to manage human resources cost, human resources assets, the quantification of human resources operations, the rationalization of human resource operations and human resource strategies (He & Yang, 1993). The human resource management system is based on any systematic method to obtain relevant information as the basis for the management of human resources. The information provided by the system must include timeliness, correctness, comprehensibility, relevance, and integrity (Mondy & Noe, 1990).

For the definition of the human resource management information system, it should be an information system that collects, stores, and accesses data by means of computers, and determines the legality of the organization's historical data on employees, applicants, and employees. It has three key points: (1) to present in the form of a database; (2) the input of the data is efficient, correct, and time-sensitive; (3) through a variety of flexible use, to quickly and easily access information (Sanders & Courtney, 1985). The definition of human resource information system means: used to collect, record, store, manage, present, performance as well as a human resource database, computer applications, hardware and software combinations (Broderick & Boudreau, 1992).

The Implementation of Human Resource Management Information System

When enterprises are faced with the introduction of a new software system, they need to have detailed thinking, planning, communication, content analysis, and then conduct step by step through the program to reduce the impact of system implementation on the organization. The viewpoints of prior studies on system implementation are as follows: The implementation of human resource management information system is the processes of system design and organizational change. Therefore, it is important issue about how to successfully introduce information systems into the enterprise and continue to use it frequently to bring the greatest economic and human benefits to the organization (Davis & Olson, 1985; Turner & Lucas, 1985).

"System implementation" is a process of managing the impact of the system on the organization. It needs to introduce the information system into the organization step by step, and has a mature management plan of organization change (Robey, 1987). When the organization implements the human resource management

information system, it needs to consider the various stages of the system activities. In addition to the technical guidance, it is necessary to consider the management level requirements, and must strengthen communication and coordination with the supervisor and subordinates. The construction of the human resource management information system also needs to be different from the culture of the company, the priority of business development, the skills of personnel, and the distribution of human resources and financial resources (Ceriello & Freeman, 1991).

Research Method

This research adopts case study with in-depth interviews at W University of Science and Technology as well as supplemented by the collected secondary correlations, and then conducts data analysis. This study tries to explore and understand the usage and the performance after implementing human resource management information system and the key factors influencing the usage and performance.

Research Subject

This research conducts in-depth interviews with the staff of the Human Resource Department at a private university of science and technology. It has been more than 30 years since the school was founded. W University of Science and Technology currently has more than 10,000 students with bachelor and master programs. There are 706 members including formal faculty, part-time teachers and staff. The interviewees of this study were mainly one director and four staffs working at the Department of Human Resource.

Target Technology

The human resource management information system in the study is a data management system with a large content module. The information system is divided into 14 sub-systems as follows: (1) electronic form management; (2) human resources management; (3) appointment operation management; (4) attendance management system; (5) award and punishment management system; (6) assessment management system; (7) promotion management; (8) insurance management system; (9) retreat rewards assignments; (10) hourly fee management; (11) advanced study management; (12) personnel related documents; (13) authority system management; (14) system related settings.

Case Analysis

System Quality

It is generally agreed that the system quality is acceptable, but there are still some problems to be improved. For example, the update speed of the system database is so slow and updates the data every 30 minutes. 5 respondents generally agree that the system security is perfect. Some interviewees feel that the interface is friendly and easy to use, but some respondents feel that the interface is difficult to use. Some respondents indicate that the system modules are fully functional, but some respondents indicate that the system module functions are too complicated and the system should simplify unnecessary module functions. In addition, most of the respondents indicate that the system can directly convert the data into a general document format (ex: Word, Excel format), which is convenient and can meet the needs of users.

Information Quality

5 respondents have consistent opinions on the quality of information. They all feel that the information quality was too bad, and it was necessary to strengthen it. The accuracy of information quality is not good and

there are a lot of data errors. Due to the messy changes in the system programming, the system could not find the fundamental error to modify, resulting in frequent errors in data output. Because the system information is incorrect, it takes more time for the respondent to check the data at work. Therefore, all five respondents indicated that they need to improve information quality of human resource management information system.

Service Quality

The five respondents were satisfied with the service quality provided by the school information staff after implementing new human resource management information system. They feel that the information service speed is fast and the attitude of the school information technology personnel is also very good. In addition, during the period of the old system undertaken by the outsourcing system company, most users feel that they are not satisfied with the service quality. There is no appropriate training course of system implementation, and the complete user manual of the system is not provided. Outsourcing systems companies are not actively serving.

Use Frequency

The research results are found that the system use frequency of each respondent is different, mainly depending on the content of their work. If it is necessary to regularly use the information provided by the human resource management information system, the respondents will increase use frequency relatively. However, if the work content of the respondent does not need to use the information provided by the human resource management information system, the use frequency is relatively reduced, or even not used at all.

User Satisfaction

Through the in-depth interviews of the five personnel, it is found that the user satisfaction of each respondent is different. Users who are used less have higher user satisfaction in human resource management information system. The higher the use frequency of the information system the staffs use, the lower user satisfaction they perceive. Even the users who rely on this system for their work hope that the system should be improved more. They also raise and discover more system problems, and therefore reduce system satisfaction.

Personal Benefits

3 respondents perceive that the personal benefit is increased, and feel that this system can enhance personal benefits. Regardless of his personal work performance, efficiency, and results, one staff does not express his opinions on personal benefits. He states that his work does not need to use this human resource management information system. Another interviewee feels that the personal benefit was low. The information system could not increase its work efficiency, but increase the personal workload. He perceives that he needs to spend extra time to maintain the data of the information system.

Organization Benefits

4 respondents feel that human resource management information system can really improve the organization benefits for personnel management. However, it is reserved that the use of this human resource management information system can reduce the manpower burden. Another interviewee believes that the system does not have any function and it cannot improve organizational benefits

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