PROBLEMS AND METHODS OF DEVELOPING THE ENTERPRISE RESOURCE PLANNING SYSTEM OF SUAN SUNANDHA RAJABHAT UNIVERSITY

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ABSTRACT

This research was aimed to; 1) study the problems of the enterprise resource planning system of Suan Sunandha Rajabhat University and 2) study the methods of developing the enterprise resource planning system of Suan Sunandha Rajabhat University. The data was compiled from 120 people of the sample group and the statistics for data analysis were percentage, mean and standard deviation.

The findings revealed that the problems of the enterprise resource planning system of Suan Sunandha Rajabhat University, the overall was in the high level; considered in material, method, management and man respectively. And there were 4 methods of developing the enterprise resource planning system of Suan Sunandha Rajabhat University; 1) Human Resource, staff should be getting trained and educated by the public and private sectors for understanding more about the enterprise resource planning system and in order to be able to work more efficient 2) Material, which should have been prepared on hire-purchase for the maintenance staff to use for fixing any unexpected problems immediately, along with a good management system, material analysis and planning on using the material for the maximum benefits 3) Method, it should have a technical support for the skill development in using materials or operational program, and educating the theoretical knowledge and 4) Management, the support staff should be trained in the enterprise resource planning system by the executive consistantly for their further efficiency and effectiveness.

Keyword: Problems, Methods of Development, Enterprise Resource Planning System

INTRODUCTION

Nowadays, the information technology has progressed dramatically and it becomes the significant roles in economy, industry, social services, public health, environment and education. Thai government has emphasized on benefits and values of the information technology on the economic, social and life quality development of the citizen. It has assigned the National Information Technology Committee (NITC) in 1992 by the Regulations of the Office of the Prime Minister on Information Technology Promotion which the Deputy Prime Minister of Economic and Social Development was the president, and the committee consisted of executives and professors both of the public and private sectors. Additionally, It has assigned the National Electronics and Computer Technology Center (NECTEC), National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology for being the committee secretary who is responsible for suggesting the policy and information technology development plan for the cabinet; staff development in the information technology, creating the environment of using the information technology [1].

As mentioned, all sectors in economy, industry, social services, public health, environment and education, they have suggested the methods of developing the information technology development by applying the enterprise resource planning system through the computer system and information technology

system; data compilation, processing and presentation [2] for developing the operational systems to serve the demands and to support the efficiency and effectiveness. The enterprise resource planning system was the resource management; data processing and analysis for the business planning [3].

Suan Sunandha Rajabhat University has implemented the enterprise resource planning system since educational year 2001 for developing the database system and information system for management. Later, in educational year 2006, it has implemented for data processing of 4 operational systems; supply system, finance and accounting system, planning and budgeting system, and human resource system [4] to prevent the data redundancy, timing and processing, and to improve the efficient data management for the maximum benefits.

The researcher, who worked as the support staff and operated the enterprise resource planning system in the human resource system, has found its problems and suspected on problems in the other systems; the supply system, finance and accounting system, and planning and budgeting system. Consequently, the researcher would like to study the problems of the enterprise resource planning system and the methods of developing the enterprise resource planning system for the further development afterwards.

OBJECTIVE

1. To study the problems of the enterprise resource planning system of Suan Sunandha Rajabhat University.

2. To study the methods of developing the enterprise resource planning system of Suan Sunandha Rajabhat University.

EXPECTED BENEFITS

1. Bring the problems of the enterprise resource planning system in human resource, material, method and management then present them to the executive management for the further development.

2. Bring the methods of developing the enterprise resource planning system of Suan Sunandha Rajabhat University in human resource, material, method and management for the further efficient development.

METHODOLOGY

The research of Problems and Methods of Developing the Enterprise Resource Planning System of Suan Sunandha Rajabhat University was the survey research which the data was compiled using the questionnaire and in-depth interview. The research methodology consisted of specifying; the population and sample group, research tools, assessment of research tools, data compilation, data analysis and presentation.

Population and Sample Group

1. Population

1.1 5 executives consisted of the president, director or headers.

1.2 120 support staff who operated the supply system, finance and accounting system, planning and budgeting system, and human resource system.

2. Sample Group

2.1 The sample group for studying the problems of the enterprise resource planning system was 120 support staff who operated the supply system, finance and accounting system, planning and budgeting system, and human resource system.

2.2 The sample group for studying the methods of developing the enterprise resource planning system was 5 executives consisted of the president, director of Academic Resource and Information Technology (ARIT),The Rector of Campus Affairs for Administration and Research Assistant, and headers.

3. Research Tools

3.1. The tool for studying the problems of the enterprise resource planning system was the questionnaire which the researcher has created from the relevant concept, theory and research. It consisted of the supply system, finance and accounting system, planning and budgeting system, and human resource system and divided into 2 parts as following;

Part 1 – general information consisted of department, work experience, and operational systems

Part 2 – problems of the enterprise resource planning system which assessed by the rating scale [5];

Level 5 represented to the problems of the enterprise resource planning system was in the very high level

Level 4 represented to the problems of the enterprise resource planning system was in the high level

Level 3 represented to the problems of the enterprise resource planning system was in the moderate level

Level 2 represented to the problems of the enterprise resource planning system was in the low level

Level 1 represented to the problems of the enterprise resource planning system was in the very low level

3.2 The tool for studying the methods of developing the enterprise resource planning system was the in-depth interview in man, material, method, and management.

RESEARCH METHOD AND MANAGEMENT

The data was compiled using the questionnaire and in-depth interview which the assessment of research tools were as following;

1. The researcher has studied the relevant concept, theory and research for creating the questionnaire.

2. Specified the objectives of the questionnaire by covering the objectives of the research.

3. Created a draft questionnaire.

4. Presented the draft questionnaire to the advisors and professors to prove its content accuracy from the research .

5. Presented the questionnaire to 5 professors, to prove that there was a consistency as each of 28 items was more than 0.5 of the Index of Item-Objective Congruence (IOC).

6. Tested the revised questionnaire with 30 staff excluded with the sample group who operated the supply system, finance and accounting system, planning and budgeting system, and human resource system at Suan Dusit University as its similarity, it revealed that there was a reliability as it was more than 0.8 (0.89) of the Cranach's Alpha Coefficient.

7. Revised the questionnaire for surveying.

DATA COMPILATION

1. The researcher has compiled the data from support staff who operated the supply system, finance and accounting system, planning and budgeting system, and human resource system at Graduate School.

2. The researcher applied the questionnaire to study the problems of the enterprise resource planning system with support staff who operated the supply system, finance and accounting system, planning and budgeting system, and human resource system.

3. The researcher compiled the data from 120 questionnaires for 3 weeks.

4. The researcher analyzed the data from all questionnaires and concluded them for the in-depth interview.

5. The researcher conducted the in-depth interview for the methods of developing the enterprise resource planning system.

DATA ANALYSIS AND PRESENTATION

The researcher has analyzed the information by using the statistical method and presented by using the descriptive method;

1. The information from Part 1 – general information which analyzed by using the frequency and percentage, and presented by using the descriptive method.

2. The information from Part 2 – problems of the enterprise resource planning system which analyzed by using the mean and standard deviation, and presented by using the descriptive method [6] as following;

Score 4.50 – 5.00 represented to the problems of the enterprise resource planning system was in the very high level

Score 3.50 – 4.49 represented to the problems of the enterprise resource planning system was in the high level

Score 2.50 – 3.49 represented to the problems of the enterprise resource planning system was in the moderate level

Score 1.50 – 2.49 represented to the problems of the enterprise resource planning system was in the low level

Score 1.00 – 1.49 represented to the problems of the enterprise resource planning system was in the very low level

3. Analyzing the information from the in-depth interview which was examined by using the content analysis and comment classification, and presented by using the descriptive method.

RESULTS

The research of Problems and Methods of Developing the Enterprise Resource Planning System, the findings revealed that;

1. The general information of 120 support staff who operated the enterprise resource planning system; who had 1 – 5 years of work experience was in the very high level (38.30%), who had 6 – 10 years of work experience was in the moderate level (30.80%), and who had more than 10 years of work experience was in the very low level (12.50%).

2. The problems of the enterprise resource planning system both of overall and each item; human resource, material, method and management, the findings revealed that;

2.1 Overall, the problems of the enterprise resource planning system was in the high level; Material was in the very high level (3.94), Method was in the moderate level (3.81) and Man was in the very low level (3.51).

2.2 Human resource, the problems of the enterprise resource planning system was in the high level; the technical visit of the enterprise resource planning system was in the very high level (3.56), the staff development for the enterprise resource planning system was in the moderate level (3.53) and the implementation of the enterprise resource planning system was in the very low level (3.47).

2.3 Material, the problems of the enterprise resource planning system was in the high level; the linkage system of all sections was in the very high level (4.04), the sufficiency of computer equipment: floppy disk, CD-ROM, printing ink and printer, was in the moderate level (3.96) and the sufficiency of computer was in the very low level (3.80).

2.4 Method, the problems of the enterprise resource planning system was in the high level; the support staff skill of solving the unexpected problems was in the very high level (3.87), the support staff skill of operating the unexpected problems was in the moderate level (3.81) and the support staff skill of consulting the unexpected problems was in the very low level (3.77).

2.5 Management, the problems of the enterprise resource planning system was in the high level; the support staff were trained the enterprise resource planning system continually was in the very high level (3.77), the software provision for the enterprise resource planning system was in the moderate level (3.75) and the potentiality of developing the enterprise resource planning system was in the very low level (3.62).

3. The methods of developing the enterprise resource planning system, the findings revealed that;

3.1 Human resource, the methods of developing the enterprise resource planning system were for creating the culture or value of using the information technology for the benefits of public sector, organization and operational systems which included morality and knowledge management. The university should provide the enterprise resource planning system training course consistantly for the further efficiency along with the information management covering the knowledge management for example; applying the information and communication technology for education, creating the learning process through the network system for all sectors and creating the learning environment.

3.2 Material, the methods of developing the enterprise resource planning system were being developed from the data warehouse system for executive decision continually for the further efficiency along with creating the knowledge warehouse in digital medias. The university should provide a training course for support staff who operated the information and communication technology continually for the further professionalism in their own sections including the development in quality of information system services as the customer services system.

3.3 Method, the methods of developing the enterprise resource planning system were improving the security system on the network system, creating the consciousness on the security of computer and network for their understanding, ethic and responsibility. The university should apply the international standards such as ISO17799, CobiT 4.1, ISO/IEC 27001, ISO/IEC 20000 and other rules including the support of the knowledge management for sharing techniques, processes and problem resolutions as the learning organization.

3.4 Management, the methods of developing the enterprise resource planning system were the management system for website contents, documents, digital properties, teaching contents, academic cooperation and information retrieval etc. Additionally, the information technology management was not only the technology but also the basis, implementation and information; information structure, data description and quality etc. In consequence, the information management was about human resource, process, technology and content which should be clarified in all details for its achievement.

REFERENCE

[1] Noi Suwanmethee. (2011). *Information Technology for Education*. Retrieved May 23, 2013, from https://sites.google.com/site/krunoinetwork/thekhnoloyi-sarsnthes-pheux-kar-suksa

[2] Tritos Laosirihongthong and Munin Lopburi. (2004). *Technology Management and Implementation of Enterprise Resource Planning (ERP)*. Technology Promotion 31 (174): 178-182.

[3] Kanchana Kanchanasunthorn. (2006). *Basic Study of Developing the ERP for SMEs in Prachinburi Province*. Bangkok: SE-Education.

[4] Supoj Khakhay. (2007). *The Evaluation Research for the Development of Enterprise of Enterprise Resource Planning (ERP) Phase I : The Information system for Human Resource Management of Suan Sunandha Rajabhat University*. Science Program, Faculty of Science and Technology, Suan Sunandha Rajabhat University.

[5] Likert, R. (1932). *A Technique for the Measurement of Attitudes*. Archives of Psychology.

[6] Best, J. W. (1981). *Research in Education*. New Jersey: Prentice – Hill.