

Systematic approach for electronic advisor based on the advisor's views

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บทคัดย่อ

งานวิจัยเรื่องนี้มีวัตถุประสงค์เพื่อศึกษาวิธีการเชิงระบบสำหรับอาจารย์ที่ปรึกษาอิเล็กทรอนิกส์สำหรับสถาบันอุดมศึกษาไทย ตามความคิดเห็นของอาจารย์ที่ปรึกษาซึ่งเป็นส่วนหนึ่งของงานวิจัยเรื่องการพัฒนา รูปแบบอาจารย์ที่ปรึกษาอิเล็กทรอนิกส์สำหรับสถาบันอุดมศึกษาไทยโดยใช้แบบจำลองเคอร์รี่ กลุ่มตัวอย่างเป็นอาจารย์ที่ปรึกษาสังกัดสถาบันอุดมศึกษาไทย จำนวน 100 คน เลือกโดยการสุ่มตัวอย่างแบบง่าย เครื่องมือวิจัย ได้แก่ 1) แบบสัมภาษณ์กึ่งโครงสร้างสำหรับการสอบถามความคิดเห็นแบบสอบถามความคิดเห็นต่อระบบอาจารย์ที่ปรึกษา และ 2) แบบสอบถามความคิดเห็นต่อระบบอาจารย์ที่ปรึกษาของอาจารย์ที่ปรึกษา การตอบใช้มาตร ประมวลค่า 5 ระดับ วิเคราะห์ข้อมูลเชิงพรรณนา โดยการวิเคราะห์เนื้อหา และการวิเคราะห์ข้อมูลเชิงปริมาณ โดยหาร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบน มาตรฐาน

ผลการวิจัยพบว่า ความพึงพอใจของอาจารย์ที่ปรึกษาต่อระบบอาจารย์ที่ปรึกษาโดยรวมอยู่ในระดับมาก ค่าเฉลี่ย 4.15 โดยพิจารณาทางด้านพบว่า 5 ลำดับแรกมีความถึงพอใจต่อระบบการให้คำปรึกษา, ระบบจัดการตารางนัดหมาย, ระบบสนับสนุนการตัดสินใจสำหรับนักศึกษา, ระบบการแจ้งข่าวสาร และระบบจัดการกระดานสนทนา โดยค่าเฉลี่ยเท่ากับ 4.45, 4.30, 4.21, 4.08, 4.06 ตามลำดับ

คำสำคัญ : ที่ปรึกษาอิเล็กทรอนิกส์ ระบบสารสนเทศ สถาบันอุดมศึกษา

Abstract— This research aimed to explore the systematic Approach for Electronic advisor based on the advisor's views. It's part of the research on the development of electronic advisor platform for higher education institutions in Thailand by DEAR model. The sample group was 150 advisors of higher education institutions in Thailand. The simple random sampling was applied. There were 2 instruments used in this research; the semi-structured interview for surveying the opinion toward advisor system and the questionnaire for the advisor with the items related to the opinions toward the advisor system. The 5-point rating scale was used to answer to the survey. The descriptive data was analyzed on its content. Percentage, mean, and standard deviation were applied to analyze quantitative data.

The research results showed that: the advisor's satisfaction toward the advisor system was high with 4.15 overall mean. By considering each aspect, the 5 most satisfied systems were consulting system, appointment management system, student's decision-making support system, announcement system, and web board management system with 4.45, 4.30, 4.21, 4.08, 4.06 means respectively.

Keywords-Advisor Electroniccom; Information System; higher education institutions

I. INTRODUCTION

Nowadays, student is one of the most important national resources. The main role of the higher education institution are producing the graduates, conducting research, providing academic service, and conserving arts and cultures. During 4 years in the institute, the students must have behavioral adjustments in both academic and activity. Advisor plays an important role in their achievement by supporting the student's adjustment to the

new environments, such as new friends and learning style. When studying at this level, their extra attentions and responsibility are particularly required. Advisor will be a key person who supports their changes, assists them when they're in trouble, promotes their happy study, and form them to be quality graduates. Those are the advisor's main targets. Advisor is the one who's close to the students and acts as the representative of the institutes by supporting the student's academic, personal, and social performances. Therefore, the advisor must understand the important objectives and the tools used in consulting with students.

With the above reasons, the researcher was interested in applying information technology with the role of the advisor in order to facilitate advisors, students, and staff and to enhance the efficiency of the advisor system.

II. LITERATURE REVIEW

A. Advisor Blackgroup

Advisor is a person appointed by the University to advise students on issues such as academic, activity, personality development, social adjustment, planning and career preparation. The counselors are important for quality development and are important for the success of students.[1]

B. System Theory

At the core of system theory are the notions that:[3]

1. A "system" is an ensemble of interacting parts, the sum of which exhibits behavior not localized in its constituent parts. (That is, "the whole is more than the sum of the parts.")
2. A system can be physical, biological, social, or symbolic; or it can be comprised of one or more of these.
3. Change is seen as a transformation of the system in time, which, nevertheless, conserves its identity. Growth, steady state, and decay are major types of change.
4. Goal-directed behavior characterizes the changes observed in the state of the system. A system is seen to be actively organized in terms of the goal and, hence, can be understood to exhibit "reverse causality."
5. "Feedback" is the mechanism that mediates between the goal and system behavior
6. Time is a central variable in system theory. It provides a referent for the very idea of dynamics.
7. The "boundary" serves to delineate the system from the environment and any subsystems from the system as a whole.
8. System-environment interactions can be defined as the input and output of matter, information, and energy. The system can be open, closed, or semi-permeable to the environment.

General Model of a system

A system, no matter in what way it defined, always takes some input, perform some value addition in the input and gives some output. Thus, A general model of a system can be drawn as –[5]

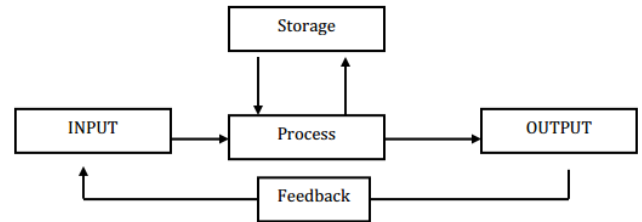


Figure 1. The function of a system

Input is the data flowing into the system from outside. For example: A newspaper takes a news feed from a news wire service such as Reuters.

Processing is the action of manipulating the input into a more useful form. For example: The newspaper takes the pure text obtained from the news wire service and creates front page layout using pictures and formatted text.

Output is the information flowing out of a system. For example: The raw news wire information is viewed on your website as a story, all nicely formatted in the company style.

Storage is the means of holding information for use at a later date.

Feedback occurs when the outcome has an influence on the input.

C. Information System Concept

DEFINITION OF A SYSTEMS APPROACH

There are many types of system but essentially all systems are made up of various parts that are connected together in a particular way in order for the parts to interact so as to achieve a specific purpose. Examples of systems range from a simple system such as a central heating system, which through the combination of parts – pipes, radiators, boiler, working together – provides heating [4]

for a building, through to complex systems such as an organization – which through its component parts of people, buildings, equipment, financial resources, etc work together to meet the objectives of that organization.

In the case of information systems the inputs are the data – for example on sales, production and people – and the outputs are the information that can be used for decision-making in the organization. The process involves storing and manipulating the data in order to transform the raw data into usable information. The process uses a combination of computer and communications technology.

The key features of a system are:

- All systems are made up of component parts and/or subsystems, and can only be described in terms of the whole.
- The components/subsystems of a system work towards a collective goal.
- The subsystems are arranged in a hierarchy, where moving up the structure provides a wider view and descending the structure provides greater detail.
- No part of the system can be changed without some effect being felt throughout the whole system.

What Are the Six Elements of an Information System? [6]

Hardware-Hardware is the most obvious part of a computer-based information system. Hardware refers to the computers themselves, along with any and all peripherals, including servers, routers, monitors, printers and storage devices. A CBIS may use a single computer or thousands.

Software-Without software, the hardware wouldn't be very useful. Software, the second element of a CBIS, is what tells the hardware how to function. It gathers, organizes and manipulates data and carries out instructions.

Data-Data, or information, is the third element of a CBIS. Just as hardware cannot function without software, software cannot function without data. This is the information part of an information system, and whether that is statistical data, sets of instructions, lists of names or even graphics and animations, it is all key to a CBIS.

Procedures-It is commonly said that "procedures are to people what software is to hardware." The fourth element of CBIS, procedures are the rules, descriptions and instructions for how things are done. In computer-based information systems, procedures are frequently covered in instruction or user manuals that describe how to use the hardware, software and data.

People-People are the most often overlooked and most important part of a computer-based information system. It is people who design and operate the software, input the data, build the hardware and keep it running, write the procedures and it is ultimately people who determine the success or failure of a CBIS.

Communication-Communication is left out of some lists of CBIS elements, but for a CBIS that involves more than one piece of hardware to function, communication or connectivity is a necessity. This is, in part, because parts of it are covered under hardware.

OBJECTIVES

- (1) To synthesize documents and research related to the Systematic approach for electronic advisor based on the advisor's views
- (2) To explore the systematic approach for electronic advisor based on the advisor's views.

III. RESEARCH METHODOLOGY

A. Research Framework

Independent Variables Dependent Variables

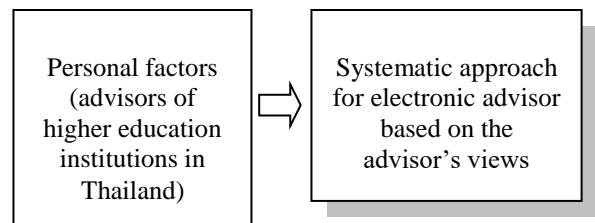


Figure 2 Research Framework

B. Population and Sample group

The sample group was 150 advisors of higher education institutions in Thailand. The simple random sampling was applied [7]. There were 2 instruments used in this research; the semi-structured interview for surveying the opinion toward advisor system and the questionnaire for the advisor with the items related to the opinions toward the advisor system. The 5-point rating scale was used to answer to the survey. The descriptive data was analyzed on its content. mean, and standard deviation were applied to analyze quantitative data. [2]

IV. RESULT

A. Systematic approach for electronic advisor based on the advisor's views which is explained by System Approach as the followings in Figure 3

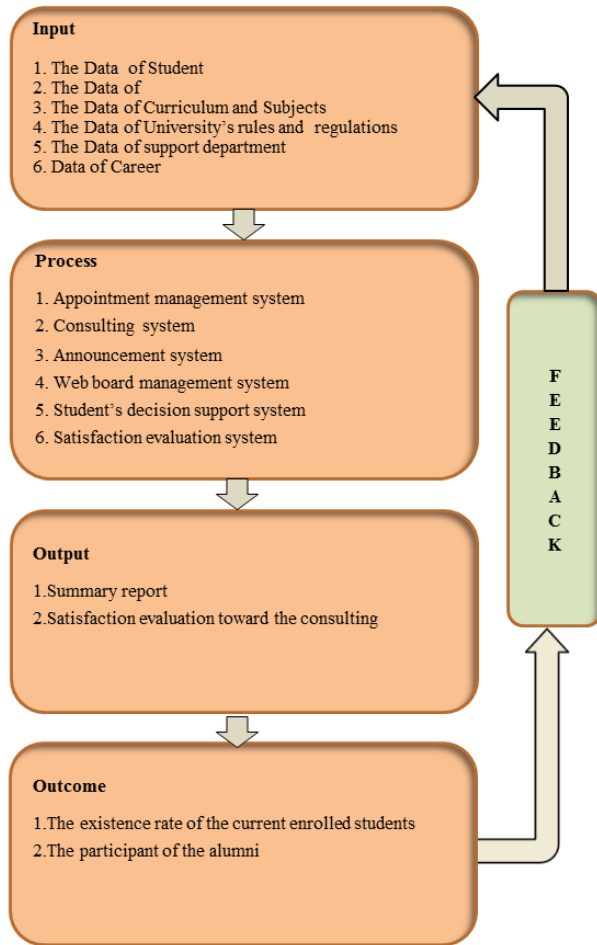


Figure 3 e-Advisor based on the advisor's views

The Components of electronic advisor system for higher education institutions in Thailand based on the advisor's views Consisted of 4 Components: 1)Input comprises of the data of students, teachers, curriculum and subjects, University's rules and regulations, and support department. 2) Process composes of 6 systems : 1.Information system such as registration date, add/withdraw the subject ., 2. Appointment management system., 3. consulting system such as consulting and behavior records., 4.Announcement system such as event announcement to the current enrolled students and alumni via SMS or e-mail. .,5.Web board management system such as creating topic, sending message, private Q&A forum with advisor., 6.Student's decision-making support system. And Satisfaction evaluation system toward the consulting 3) Output insists of Summary report on, for example, statistic record of the meeting with advisor, academic consulting, other consulting and Satisfaction evaluation toward the consulting and 4) Outcome consists of existence rate of the current enrolled students and the participant of the alumni

B. Satisfaction of Systematic approach for electronic advisor based on the advisor's views in Table 1.

Table 1 Satisfaction of Systematic approach for electronic advisor based on the advisor's views

Details	Evaluation Results		Level of Satisfaction
	Mean	S.D	
1.Access management of the users; students, teachers, and staff	4.03	0.22	high
2.Database management system	4.03	0.33	high
3.Information system	4.08	0.18	high
4.Appointment management system	4.30	0.36	high
5.consulting system	4.45	0.22	high
6.Announcement system	4.03	0.22	high
7.Web board management system	4.06	0.33	high
8.Student's decision-making support system	4.21	0.18	high
9.Satisfaction evaluation system toward the consulting	4.15	0.36	high
10.Summary report on the statistic of consulting	4.19	0.22	High
Total	4.15	0.26	High

The advisor's satisfaction toward the advisor system was high with 4.15 overall mean. By considering each aspect, the 5 most satisfied systems were consulting system, appointment management system, student's decision-making support system, announcement system, and web board management system with 4.45, 4.30, 4.21, 4.08, 4.06 means respectively.

V. RECOMMENDATION

The study of this electronic advisor system for higher education institutions in Thailand based on the advisor's views was conducted only among the advisors. For future study, there should be a closer survey on the opinions of the students and staff who are also the system users. In developing system for the greatest performance, advisor's role is significant in supporting and pursuing the system's work achievement.

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