

The Characteristic of Management Information System Affecting the Decision of School's director

Daoprakai Raso¹, Abhichat Anukulwech², Kanporn Aiempahaya³, Niwat Noymanee⁴

¹Prompikunthong School, Office of the Basic Education Commission, Ministry of Education, Thailand ,10540
(e-mail:drdaoprakai@gmail.com)

²Chonburi Technical College, Chonburi, Thailand,20170
(e-mail : abhichat.a@gmail.com)

³Faculty of Education Rajabhat Rajanagarindra University, Chachoengsao Province, Thailand, 24000
(e-mail: kanporn2512@gmail.com)

⁴Bangkok Suvanapumi University, Ladkrabang, Bangkok, Thailand,10520.
(nw.noymanee@gmail.com)

Abstract— The objectives of this research was to study the characteristic of management information system affecting the decision of school's director in Thailand. The sample group were 166 teachers, teaching in Samutprakan Primary Educational Service Area 2. Schools under the office of the basic education commission (OBEC) in Thailand in year 2018. The samples were taken using Multi - Stage Sampling randomized technique. Data were collected by using questionnaire from 11 factors in which the questionnaires were approved content validity from experts at level of 0.92 and 0.91, respectively. The statistics were used to analyse the data as follows: mean (M), standard deviation (S.D), and Stepwise Multiple Regression Analysis. The study revealed that the Characteristic of Management Information System Affecting the Decision of School's director consisting of the Complete Characteristic , Secure Characteristic , and Timely Characteristic. The predictive equation from standard score as $Z = .493(X3) + .365(X8) + .299(X10)$.

Keywords— Characteristic, Management Information System, Affecting, Decision of School's director

1 INTRODUCTION

The twelfth national economic and social development plan (2017-2021) in Thailand was formulated during a period when the world was experiencing rapid change and becoming even more integrated, whilst Thailand itself was undergoing reforms. Since the Ninth Plan, the principles of the "Sufficiency Economy Philosophy" have been and continue to be a vital element of development strategy as they underpin the promotion of moderation, reasonableness, and resilience. These principles have significantly contributed to balanced and sustainable development in Thailand. [1]

Educational excellence should be promoted at all levels by improving the management of primary education quality in small schools, reforming teaching and learning methods, and developing the quality of teachers within the whole system. The improvement in educational quality also requires excellence in the specialized fields, such as through Dual Vocational Education³ and Cooperative Education,⁴ in order to prepare the workforce to have the requisite skills before entering the labor market. Furthermore, there is a need to create an environment for lifelong learning which features diverse learning materials and centers. [1]

The Ministry of Education in Thailand focused on the importance of educational information, because such information can be useful for education management. For example, an information system can help a director make decisions efficiently and design proper plans. [2]. Also Łukasz Grudzień and Adam Hamrol [3] said the Information is the main constituent of documents that make up a quality management system. The Information and Communication Technologies (ICTs) is a general term which refers to all kinds of technologies that enable users to access and manipulate information. [4]

Nowadays, Thailand has to face challenging and risk which are from changing of many things both in the country and in the world. Because of spreading of data and information as well as development of technology, Thailand has to prepare itself for this changing. Also, our country has to improve our information system to prevent the country from getting unsecured or unscreened information and culture from foreign country as well as from ASEAN.[5]

The Ministry of Education found the importance of academic information because the information will be useful for education management. Also, the information is one of the most important factors that help the leaders or administrators make good and efficient decision. [6]

Decision making is sine qua non to education administration because a school, like all formal organizations, is basically a decision-making structure (Hoy and Miskel, 2001). Decision making is a process that guides actions. Decisions are based on the beliefs, values and previous experiences of individuals. Leaders must know themselves, know why they choose particular paths, know whom to involve, and know which particular decision-making model to use. Today, researchers and theorists know that those at the top cannot accurately gather or predict all alternatives. They know that followers deserve to be involved and that input and collaboration result in better decisions. The first decision is to decide what level of involvement is most effective.[7]

As the background and the importance of Management Information System Affecting the Decision of School's director has a lot of effects on education management, such as on operation planning and making efficient decision for quality assurance process of school, the researchers is interested in study in the Characteristic of Management Information System Affecting the Decision of School's director. The researchers hopes that the study will be guideline and useful for schools on taking the analyzed information to the decision of School's director and to support the procedure of quality of Thai schools.

2 THE OBJECTIVES

The objectives of this research was to study the characteristic of management information system affecting the decision of school's director in Thailand.

3 CONCEPTUAL FRAMEWORK

3.1 The research follows the Characteristic of Management Information system of Efraim Turban and Jay E. Aronson [8] as research framework which includes 11 characteristics as follows:

1. Accessible

Information should be easily accessible by and at the right time to meet their needs.accessible by authorized users so they can obtain it in the right format

2. Accurate

Accurate information is error free. In some ca inaccurate data is fed into the transformation pro garbage out (GIGO.) for free. In some cases, inaccurate information is generated because nto the transformation process. This is commonly called garbage in.

3. Complete

Complete information contains all the important not include all important costs is not complete. non contains all the important facts.

4. Economical

Information should also be relatively economical to produce. Decision makers must away the value of information with the cost of producing it.

5. Flexible

flexible information can be used for a variety of purposes.

For example, information on how much inventory is on hand for a particular part can be used by a sales representative in closing a sale, by a production manager to determine whether more inventory is needed, and by a financial executive to determine the total value the company has invested in inventory

6. Relevant

Relevant information is important to the decision maker. Information showing that lumber prices might drop might not be relevant to a computer chip manufacturer.

7. Reliable

Reliable information can be trusted by users. In many cases, the reliability of the information depends on the reliability of the data-collection method. In other instances, reliability depends on the source of the information. A rumor from an unknown source that oil prices might go up might not be reliable.

8. Secure

Information should be secure from access by unauthorized users.

9. Simple

Information should be simple, not overly complex. Sophisticated and detailed information might not be needed. In fact, too much information can cause information overload, whereby a decision maker has too much information and is unable to determine what is really important.

10. Timely

Timely information is delivered when it is needed. Knowing last week's weather conditions will not help when trying to decide what coat to wear today.

11. Verifiable

Information should be verifiable. This means that you can check it to make sure it is correct, perhaps by checking many sources for the same information.

3.2 The research follows the decision making in schools of Herbert A. Simon [9] as following:

Step 1. Recognize and Define the Problem or Issue

The recognition of a difficulty or disharmony in the system is the first step in the Decision-making process. Effective administrators are sensitive to organizational actions and attitudes that do not measure up to the prescribed standards

Step 2. Analyze the Difficulties in the Existing Situation

This stage of the decision-making process is directly related to the first stage; in fact, some writers prefer to combine definition and analysis.

Step 3. Establish Criteria for a Satisfactory Solution

After the problem has been analyzed and specified, the decision maker must decide what constitutes an acceptable solution. What are the minimum objectives that are to be achieved? What are the musts compared to the wants? It is not unusual for the perfect solution in terms of outcomes to be unfeasible.

Step 4. Develop a Plan or Strategy of Action

This is the central step in the process. After recognizing the problem, collecting data, and specifying the problem and its boundary conditions, decision makers develop a systematic and reflective plan of action.

Step 5. Initiate the Plan of Action

Once the decision has been made and a plan of action formulated, the decision needs to be implemented---the final element in the decision-making cycle. The initiation of the plan of action requires at least four steps: programming, communicating, monitoring, and appraising.

4. METHODOLOGY

4.1 POPULATION AND SAMPLES

Population: 2,091 teachers, teaching in 1,096 government. Schools under the office of the basic education commission (OBEC) in Thailand in year 2018.

Samples: The sample group were 166 teachers, teaching in Samutprakan Primary Educational Service Area 2. Schools under the office of the basic education commission (OBEC) in Thailand in year 2018.

Variables

1. Independent Variable (Predictor) as following:

- 1) Accessible
- 2) Accurate
- 3) Complete
- 4) Economical
- 5) Flexible
- 6) Relevant
- 7) Reliable
- 8) Secure
- 9) Simple
- 10) Timely
- 11) Verifiable

2. Dependent Variable (Criterion variable) as following:

- 1) Recognize and define the problem or issue.
- 2) Analyze the difficulties in the situation.
- 3) Establish criteria for a satisfactory solution.
- 4) Develop a strategy for action.
- 5) Initiate a plan of action.
- 6) Evaluate the outcomes.

4.2 Research Tools

The research tools was the questionnaires about the Characteristic of Management Information System Affecting the Decision of School’s director in 3 parts: 1) the general information of respondents contains 4 items, and step 2) to study The Characteristic of Management Information System Affecting the Decision of School’s director in Thailand. The questionnaire had reliability at 0.95. It consisted of 50 questions. The IOC was used to evaluate the items of the questionnaire based on the score range from -1 to +1. In this research the Item Objective Congruence (IOC) = 0.60 - 1.00. The Reliability ; The try-out process of 30 questionnaires, reliability of the ques-

tionnaire was determined to ensure that the responses collected through the instrument were reliable and consistent the study’s questionnaires were highly reliable as the score was 0.982.

4.3 Data Collection

The data were collected in 2018 by questionnaires out to par teachers in Samutprakan Primary Educational Service Area 2. Schools under the office of the basic education commission (OBEC) in Thailand in 2018 by mail and send back.

4.4 Data Analysis

The data to find the Characteristic of Management Information System Affecting the Decision of School’s director were analyse with the Stepwise Multiple Regression Analysis.

5 RESULTS

The questionnaires were received return amount 166 sample

The result of the Characteristic of Management Information System Affecting the Decision of School’s director as shown in the table 1-2.

Table 1. The results of the analysis of variance of Characteristic of Management Information System Affecting the Decision of School’s director

Model	ss	df	MS	F	Sig
Regression	65.872	3	23.624	161.876*	.000
Residual	49.354	352	.146		
Total	115.226	355			

*P ≤ .05

From table 1 was found the analysis of variance of Characteristic of Management Information System Affecting the Decision of School’s director Different With statistical significance at the level of .05

Table 2. indicated the correlation coefficient Stepwise Multiple Regression Analysis in predicted the factors supporting information technology management

Variables	b	SE _b	β	t	Sig
Constant	.406	.152		4.352	.001
Complete X3	.371	.059	.493	5.484	.000
Secure X8	.357	.069	.365	3.247	.000
Timely X10	.342	.053	.299	4.066	.002

*P ≤ .05

From table 2 was found the study revealed that the Characteristic of Management Information System Affecting the Deci-

sion of School's director consisting of the Complete Characteristic , Secure Characteristic , and Timely Characteristic.

The Prediction equation in the Characteristic of Management Information System Affecting the Decision of School's director in the standard score as;

$$\hat{Z} = .493(X3) + .365(X8) + .299(X10).$$

6 CONCLUSION

To study the Characteristic of Management Information System Affecting the Decision of School's director of teachers in Samutprakan Primary Educational Service Area 2. Schools under the office of the basic education commission (OBEC) in Thailand in 2018. The study revealed that the Characteristic of Management Information System Affecting the Decision of School's director consisting of the Complete Characteristic , Secure Characteristic , and Timely Characteristic. It can be predicted because the characteristic of management information system in Complete information contains all the important not include all important costs is not complete. non contains all the important facts. Also Secure Information should be secure from access by unauthorized users. Finally, the Timely information is delivered when it is needed. Knowing last week's weather conditions will not help when trying to decide what coat to wear today.[9]

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