

## Why modern education administrators need EIS

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### ABSTRACT

The education industry is no different from other fields especially in the new era of educational administration. It is imperative that school administrators at all levels learn and understand new tools in the era of information and communication technology.

Bringing EIS to help in education administration In addition to helping facilitate education administrators. If you consider the heart of educational administration, 4 things are academic administration budget management personnel management And general administration, it is considered that EIS will help answer all four aspects of educational administration as well whether it is planning, directing, directing, operating and evaluation, etc.

To be used to assist in their management for maximum efficiency. because at present If considering the issue of educational reform in accordance with the guidelines of the National Education Act B.E. Promote lifelong education arising from the integration of education in the system informal education and informal education. Therefore, in today's world of information, EIS is suitable for modern education administrators. To step in the flow of change itself.

There is mobilization for the development of education at all levels. This can be seen from the rapidly changing content development and educational management style of Thailand especially in terms of supporting globalization, such as entering the ASEAN Community in 2015 or a mobile computer project for all students (One Tablet PC per Child) of the government [1], which is regarded as an important paradigm in the future of national education infrastructure standards.

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**Introduction.** Amidst the changing trends in the era of globalization information technology and communication plays a huge role in every organization and at all levels of management. Especially in business which requires information to assist in decision-making by senior management for formulating strategies and policies to drive the organization Support the intense and intense competition in today's era. The application of information and communication technology is very popular in business circles. Because the business industry needs to rely on data and information in the work process. Especially is the management. As it is well known that information and communication technology is an important tool for gathering information data analysis and presentation of information and although information and communication technology is prevalent in business but other industries can apply information and communication technology as well. Because each organization in every industry Regardless of any structure and organizational form all need information and information to support decision-making in formulating strategies and policies that drive the organization.

The education industry is no different from other fields especially in the new era of educational administration. It is imperative that school administrators at all levels learn and understand new tools in the era of information and communication technology. To be used to assist in their management for maximum efficiency. because at present If considering the issue of educational reform in accordance with the guidelines of the National Education Act B.E. Promote lifelong education arising from the integration of education in the system informal education and informal education There is mobilization for the development of education at all levels. This can be seen from the rapidly changing content development and educational management style of Thailand especially in terms of supporting globalization, such as entering the ASEAN Community in 2015 or a mobile computer project for all students (One Tablet PC per Child) of the government [1], which is regarded as an important paradigm in the future of national education infrastructure standards.

One of the tools in the information and communication technology era Which is popular with various business organizations is EIS (Executive Information System) or information systems for high-level executives because EIS is a computer program which serves to collect, compile and filter information at various levels in the organization from a large amount of information at the operational level. to medium volume and began to organize information suitable for middle management Until the middle-level information is selected through the selection and selection of information suitable for senior executives, EIS is an important tool for modern education administrators. As necessary software for

Bringing information that is summed up or information at the top of a structured pyramid. And to offer policy and strategic decision-making options to the top administrators of educational institutions, EIS is essential for modern managers who, if they recognize the benefits of EIS and use it as a tool in education administration whether it is decision making, planning, policy supervision or super-vision of educational institutions It will help to provide educational institutions with up-to-date information. And can retrieve those data as needed, including EIS will help strengthen the image. Or the identity of the school to see it as an educational institution in the 21<sup>st</sup> century as well.

### **What is EIS?**

EIS or Executive Information System is an information system for senior management.

It is an information system that is important to the organization's administrators in regards to policy-defining and strategic planning of the organization to be able to take action to achieve the goals that have been set effectively and effectiveness. [2] divided the types of information technology for executives into 4 types:

1 . Transaction Processing System (TPS) refers to the first information system that an organization uses to collect and process information.

2. Management Information System (MIS) refers to a system that involves middle management in bringing information from TPS to summarize and screen for information suitable for management of operational level employees. This allows entry-level and middle-level executives to retrieve the information they need when it is needed.

3. Decision Support System (DSS) refers to a system that collects data and information from TPS and MIS to create an alternative solution for senior management. To assist decision-making under the conclusions and comparisons of information from various sources.

4 . Executive Information System (EIS) refers to a work system that collects, screens, synthesizes data and information from TPS, MIS and DSS for top management to retrieve information and information that meets their needs, is timely, and is as easy to use as possible in order to be able to apply those information to effectively manage the organization

Information systems for senior management Therefore, it is not a system that can occur alone. but relying on information From lower level information systems to be processed for presentation to the next level of senior management, that is, EIS relies on data obtained from the decision support system, the Decision Support System, or DSS, and DSS relies on The data obtained through the management information system is Management Information System or MIS, and MIS relies on the information obtained through the transaction processing system or TPS. If compared to a pyramid,

TPS is located in the base of the pyramid Next up is MIS, next up is DSS, and the top of the pyramid is EIS.

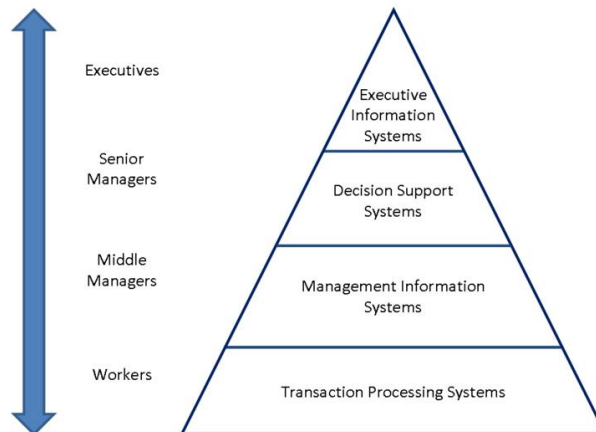


Figure 1: Pyramid showing four levels of information. [2]

Figure 1 in some cases, necessary information may be obtained from external databases come mix with if the information in the pyramid is insufficient to meet the needs of senior management.

As already mentioned, EIS is very popular in business. But we can apply EIS to the administration of education as [3] mentioned the reasons for the need for

The development of information systems for educational institutions is divided into 3 issues:

1 . The need for changes in management processes and operations because the original information system was unable to provide information or work as needed in the field of knowledge management which is a new dimension of management

2. Changes in technology due to the advancement of technology and lower prices; and

3. Organizational adjustments to create competitive advantages

### **EIS as an important tool of institutional research**

Institutional research means the study and analysis of operations, environment and work processes of higher education institutions for the benefit of collecting Compiling, processing and presenting information necessary and relevant to educational administration to support school administrators in planning policy making and decision making Institutional research originated in the United States in the early 1920s and became available in Thailand in the early 1970s until the present. Institutional research has developed by leaps and bounds. From the analysis of data with documents (Document) to computer information synthesis the reason is the use of statistics, data and information.

Developed by hand (Manual) according to the old style, it seems to be out of date and is not suitable for modern educational institutions, [4] has mentioned about the use of management information systems to help in researching institutions that now Schools and educational institutions are preparing to enter the educational quality assurance system in principle The operation of the Quality Assurance System is management in different parts as usual of an organization or agency programs, work networks, projects and connected activities are in every part of the school. But it must be carried out continuously in order to develop the work well meet the standard and to be of higher quality. In this regard, it is necessary to collect information. To demonstrate the progress and success of the operations in different parts systematically at all times as part of monitoring, supervision and evaluation. According to the administrative system and according to the educational institution's quality assurance process, usually the data collection in this section it will be part of the Management Information System or MIS in the form of School Management System

Management Information System or MIS is therefore an important part in the administration of educational institutions in the present era, in addition to having to manage educational institutions to have quality according to their goals or to compete with themselves must also take into account the educational quality assurance system, including the

Evaluation and other external factors which must inevitably be involved in educational institutions as an important indicator that the government responsible for overseeing national education policies as well Therefore, institutional research is not only the study, research, collection and data processing to the administrators of the educational institutions It is also important to apply that information to quality assurance work. If educational institutions use EIS in conjunction with institutional research, then the school is like a tiger with wings. because in addition to having information that has been passed through research methods in institutional research There is also information at the top of the pyramid for top administrators to use in the administration of educational institutions.

Today, it can be seen that the mission of modern education administrators In addition to having to compete with yourself there are still many external factors involved in educational institutions that are different from the past, such as the educational quality assurance system or an achievement evaluation system for educational institutions as well.

O-NET exam results, etc. If you look back at the competition with yourself. The application of information and communication technologies to assist in the administration of education is a must for modern education administrators. Especially if any educational institution uses information systems for senior management or EIS to assist in researching the institution. The more education administrators receive information that is useful for the administration of education as well, as [4] has explained that.

The basic work of most institutional research consists of collecting analytical data report preparation Support of information and information for the performance of the missions of the departments within the institution. Helping to make decisions based on databases Used in planning and

setting policies. Create solutions to problems and develop to help executives have more appropriate information and information for decision-making have the necessary and appropriate information which is accurate and sufficient to aid in decision making or set the development direction of that institution

Therefore, institutional research that uses information and communication technology to help present the information obtained from institutional research is important for modern educational administrators because in addition to it will bring modern tools to help in the collection remix synthesis and presentation of information and information It is also useful for applying to the assessment of individuals or external agencies that need to be associated with an educational institution.

### **EIS and Educational Administration**

Today, the use of technology is an integral part of all levels of work. Executives are increasingly faced with working conditions in a technology-based environment. The work patterns of executives have to change as well. Working in an atmosphere where technology can quickly collect, store, present, and disseminate information pushing executives to make faster decisions and changes in new technologies it makes executives have to learn more to keep up with the development of technology. Changes in executive decision-making processes adapting to learning new things all the time, including patterns, methods and paradigms in changing work It is something that executives need to have knowledge, skills and vision. In order to be able to work in society in the information technology era, [5] discussed the important factors in technology integration for educational administrators that include:

1. Computer technology (Computing Technology) is the production or development of electronics devices (Electronic Devices) that can be used to control various devices. According to the user's wishes with the instructions that we have created, called Program, and can also act as a teaching device such as Computer Assisted Instruction (CAI), which is a program used to help teach or Computer Managed Instruction (CMI) to computers used to operate or manage teaching and learning processes

2. Database Technology (Database Technology) is a source of information and stored in the form of Digital Code developed in parallel with computer technology. Because computer technology will be less useful. If there is no data or program that can store and retrieve data quickly enough to meet the needs of the management.

3. Communication technology (Communication Technology) is the development of communication systems. At present, data is transmitted over metal wires and optical fibers. It was born as an information expressway system (Information Super Highway). It also developed communication technology in the form of radio waves and sound waves both terrestrial and transmitted via satellite making it possible to link into a universal network (International Network) and connect computers with databases distributed around the world. The situation of borderless information or information globalization.

4. Educational Technology (Educational Technology) is the application of special abilities of technology to learners who have a different nature of learning. Therefore, it is necessary to organize information into a system that allows learners to learn. Because of the vast amount of information available in various forms, it is necessary to select and organize the process of presenting appropriately and to achieve the desired purpose so that the recipient can understand the meaning to match the purpose of the presentation Educational technology will make the academic administration work of educational institutions. Both courses teaching measurement and execution it is quality

Therefore, the application of EIS to education administration Therefore, the use of information and communication technology to achieve both efficiency (Efficiency) and effectiveness (Effectiveness) to lead to the quality (Quality) of the learners and the quality of the teaching and learning management system.

The use of EIS in educational administration for school administrators technology used It's not just information and communication technology but also includes methods, processes, equipment and personnel. Currently, there are various technologies many that can be used in education administration School administrators can therefore choose to use various technologies to apply appropriately in the development of educational institutions conveniently Organizational management in this era where there are many technologies to use. The new generation of executives should develop themselves to keep up with the changes and gain knowledge, abilities and skills to be able to utilize technology effectively and efficiently.

### **EIS as an essential tool for modern education administrators**

If considering the Information and Communication Technology Master Plan for Education of the Ministry of Education 2011-2013 [1], it is found that government agencies that oversee the country's education policy has recognized the necessity of bringing information and communication technology to develop education management This can be seen in policy-making efforts through many pilot projects in the past, such as encouraging teachers to Educational personnel and educational institutions develop and use electronic media (e-Contents) for continuous learning management according to specified standards, including e-Books, e-Library, Courseware, LMS (Learning

Management System). ), including the establishment of an electronic media center (e-Content Center) and

Development of learning systems with ICT (e-Learning System) in various forms Including the provision of computer systems and equipment to support teaching and learning to organize a Virtual University, Virtual Classroom and Virtual Laboratory, a set of equipment for organizing distance learning and other standardized educational management suitable for teaching and learning at each level as well as accelerate the development of software for service (Front Office) according to the mission of the agency at all levels, such as Smart Card (Student ID Card), e-Registration, e-Counseling, e-Testing, e-Loan, e-Academy, e-Platform, Classroom without walls, Outdoor education and Appropriate Curriculum.

Bringing EIS to help in education administration is to bring information that has been filtered from the EIS system, which is information in the manner of bringing the data that has been analyzed synthesis and summarizing the necessary information for executives to assist in decision making, planning, and governance. Therefore, EIS is an essential tool of modern educational administrators as an essential tool for methodical summation of information. It is information that presents policy and strategic decision-making options to the top administrators of educational institutions.

Institutional researchers have long known that EIS is important as one of the tools to collect, analyze and present information necessary for the application of all information circulating in educational institutions through research methodology institution to present to the policy committee or the university council and high-level personnel from various departments that is responsible for the administrator of educational institutions Data from EIS has been applied through institutional research.

Applying EIS that has been filtered by institutional research methodology to be applied to the administration of educational institutions. It is part of the e-Education system which has been mentioned in the education industry as [6] said e-Education means the development and application of information. (Information) and knowledge (Knowledge) to support student-centered learning and to encourage the development of application of information and communication technology (Information and Communication Technology) to create, extend and disseminate knowledge and information. The use of information systems for high-level executives (EIS) to use or communication systems via e-mail (e-Mail) or documents and textbooks in the form of e-books (e-Book) are all innovations used in E (e: electronic) era precedes. Therefore, e-Education is the introduction of information and communication technology as a tool for the entire education management system. Starting from the recruitment process of the educational institution student admission process Registration and measurement Curriculum and teaching work, library work, guidance work, research and development work. Student Affairs Premises welfare and facilities, etc. by EIS is considered as one of the sub-tools



within the e-Education system. Modern education administrators should pay attention to the application of EIS as an essential tool for today's educational administrators.

**Conclusion.** Bringing EIS to help in education administration In addition to helping facilitate education administrators. If you consider the heart of educational administration, 4 things are academic administration budget management personnel management And general administration, it is considered that EIS will help answer all four aspects of educational administration as well whether it is planning, directing, directing, operating and evaluation, etc. Therefore, in today's world of information, EIS is suitable for modern education administrators. To step in the flow of change itself.

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