The Use of Modern Information Technologies to Make Management Decisions

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ABSTRACT

The author considers computerization and information technology to be a key factor in improving the efficiency and quality of decisions in the management decision-making system, cited examples of information technology to make management decisions.

Keywords:	Management Solutions, Information Technology, Management Decisions.

Modern management in the field of education is unthinkable without a well-organized information environment. Knowledge (information environment) is one of the most important resources in modern organizations, and their effectiveness depends primarily on the process of working with all kinds of knowledge.

The main requirements for automation are outlined in iso 9000 standards (International Organization for Standardization), educational standards at the European Quality Assurance Association (ENQA) in higher education.
The experience of Russian and foreign educational organizations shows that the use of modern information technology in educational organizations is doing good as management and conducting the teaching process, preparing professionals, improving competitiveness, as well as clarifying the allocation of resources needed in the educational process. And as a result, there are increasing demands for first place automation, the organization of a single educational information environment and the development of management methods using modern software tools in educational organizations, and the development of

networked computer technologies that help you make management decisions.

Information systems are divided into the following:

Data Processing Systems (MOIT). These include the processing of electronic data over a certain period of time, the automation, processing, display and registration of data collection and accounting.

To the distinctive sides of the MGIT:

- find preliminary solutions to algorites of well-structured tasks;

- the use of well-detailed data; automate daily reports.

Avtomatlashtirilsan management systems MW). Management systems over actions: hisobotlar, management vain ma'Iumotlami partial tahlil do jarayonlarini avtomatlashtiradi. Ma'Iumotlami reboot performance tizimlariga compared to ABTlar relative kichik configured data balance sheet worksin the Q&A in style ishlovchi data base balance sheet performance facility gives vain boshqaruvning wanted at the level applicable is possible vain Home decisions, decision received qiluvchi individual by received to be done is possible. In the educational organization ABT is a programming and technical tool and provides the following:

- making management decisions;
- collecting various information about the organization's activities;
- quwatting the conduct of the educational process. As a result, greatly facilitate the work of employees in an educational organization as an electronic document exchange system. When developing such systems, manufacturers should take into account the basic requirements of educational organizations.

Assisting in the making of management decisions (CSS) Management decision-maker helps individuals solve tasks that are structurally weak in the management process. It allows you to report, correct, analyze and partially plan, taking into account traditional methods of mathematical modelling. A priority of systems that help you make management decisions is the presence of a person-machine interfe, which is both understandable and convenient for a non-professional user.

Thus, the systems that help you make management decisions include the user management system and the data processing system.

The classification of axis systems in terms of level is presented in Figure 1. The problem of creating information and management systems in educational organizations is important for higher, secondary professional and as well as additional professional organizations. Special information streams were used in each organization, as well as in additional vocational schools and at various management levels.

Software developed on the basis of government orders and spread among educational organizations is included in central and digital education resources. The good aspects of such programs include automation of basic information processes in educational organizations: staffing, supporting the database among listeners, supporting the teaching process, and managing —automating farming and economic activity. Despite the universality and size, such automated systems do not take into account the individual characteristics of educational organizations, partly the entire characteristics of additional vocational schools.
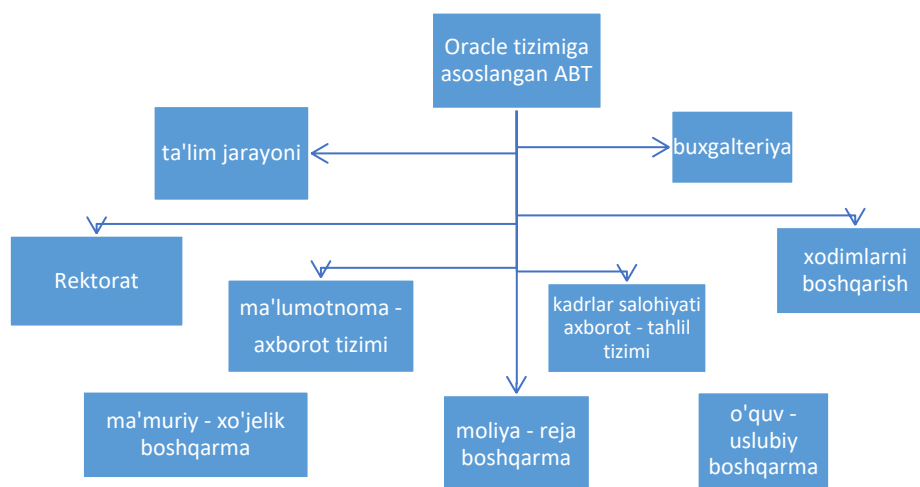

Figure 1. Management Automated System Construction Scheme

Software and technical products developed at the limits of junior education cannot exceed the boundaries of a specific area. Information systems such as this one are examples of an automated education management system - Contingent, designed to manage secondary professional learning and an automated management system based on an Oracle database, aimed at automating

management in a higher education institution. One step to the shortcomings of these automated systems is the function of the upper members to be removed from the list and its intended for secondary education institutions. The structure scheme of the automated management system is presented in Figure 1.

Oracle is an automated, multi-level architectural complex of database-based

management, and one entire database management system supports a natural software tool running under oracle's supply. Users' access to the data bank is made through a local network or the Internet.

The disadvantage of this system is that it differs from additional vocational education institutions in the structure of extraction of educational process and customer work and is intended only for higher education institutions. Many software complexes have been developed, similar to the automated systems mentioned similarly. These also include automation of curriculum and process management. Particular attention is paid to the system, the continuous development of the student training and curriculum program, and they must be flexible enough to adapt to fast changing requirements for the user. The set of programs allows higher education institutions to be managed in one information environment. The complex consists of the following modules: dean, applicant, methodological department, personnel department, etc. This system can provide information on the schedule of courses, curricula, payment management, control of student residence, etc. through the Web portal.

But the process of operating such an automated management system cannot be organized without management discipline and initial information. Changes in market structure, price and demand for training courses, changes in customer requests will lead to incomplete information and incompleteness. Therefore, management decisions will have to be made in an unregulated environment. There is a different nature of corresponding to the unknown of information when making constructive management decisions.

Incompletion of information led to its reliability supplemented by social, technical and other factors. Therefore, there is a need for intellectual decision making using automated systems to make decisions, which in turn have the ability to generate and evaluate alternatives, predict decisions being made to achieve the goal set, and make the best choice.

The Right Decision-Making Center (TQQQM) is viewed as a natural continuation of information management systems, and various authors provide a variety of descriptions. Figure 3 provides a classification of the right decision-making center, depending on the type of assignments.
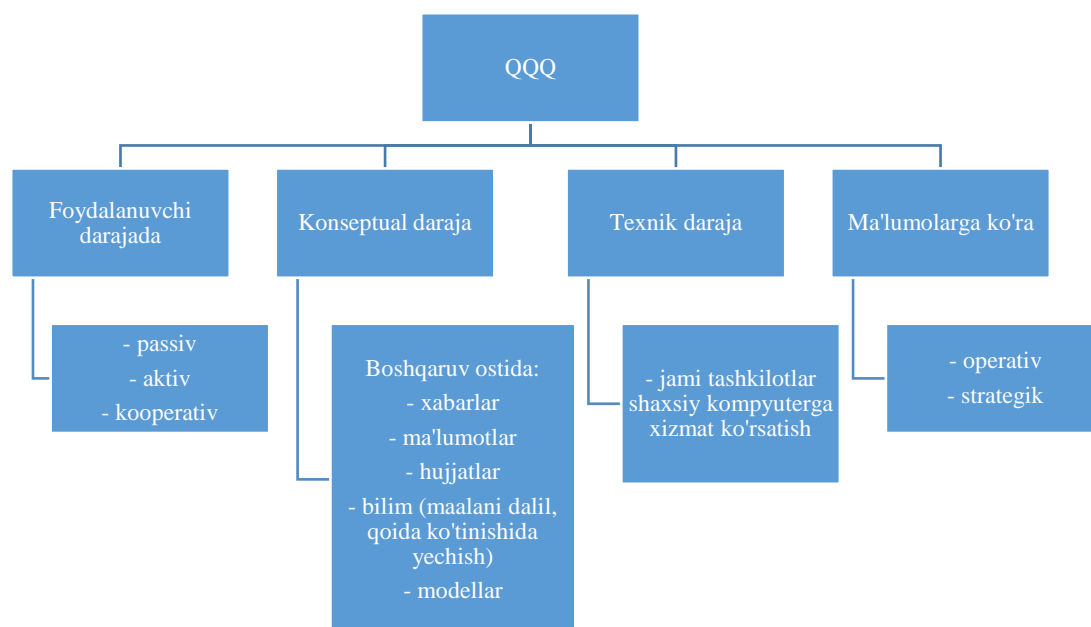

Figure 2. Classification of QQQ by type of tasks

The classification of the correct decision-making centers on completed tasks is presented in Figure 3 of the classification of the Correct Decision-Making Center at the level of

management. Passive systems may promote the decision-making process, but the asset cannot make an offer unlike the right decision-making centers. Cooperative systems, in turn, send decision-makers to check the right decision-making centers by giving them the opportunity to change (improve, add additional) decisions proposed by the system. This process will continue until the agreed decision is made. Document management systems seek and process a variety of non-structured information.

At the center of the right decision-making, the coneeptual allows you to perform actions on mathematical models: static, immitive, optimized, economic, and so on.

The center of rapid correct decision-making is designed to process incoming economic and economic processes in a short time. They are information systems that prepare reports that are the maximum convenient for acceptance, based on information that demonstrates the main economic and economic aspects of the organization.

The strategic correct decision-making system re-analyzes the various large-scale data received from different sources. They allow you to make optimal decisions, taking into account both internal and external factors.

The strategic correct decision-making system allows you to process information in depth enough and use it in the decision-making process.
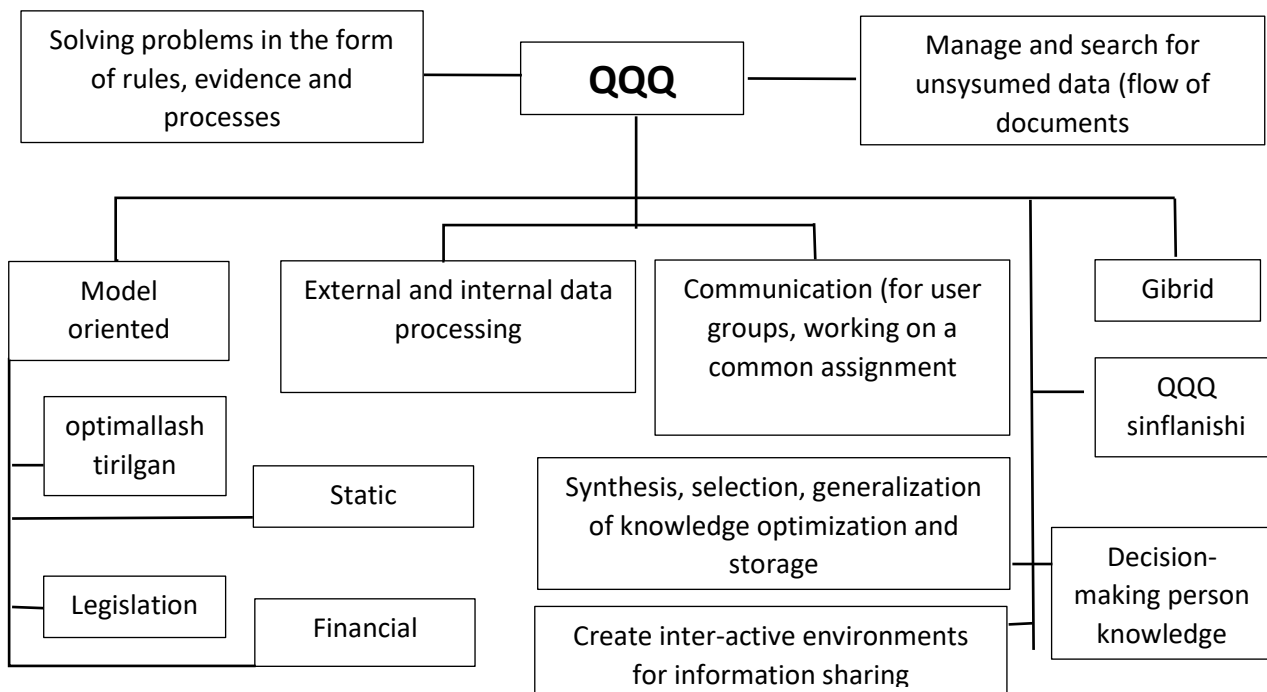

Figure 3. Classification of the right decision-making centers based on management levels

Hybrid is a system of correct decision-making, developed by A.V. Artyuxin, is a mechanism for regulating outgoing information and managing knowledge through selection, synthesis and data enrichment; analyzing uncertainty; modeling problems and choices; and identifying the purpose model of corporate-production activities in the association. His work developed an algorithm for the correct decision-making system, which is based on Bayesovsky's decision-making theories and Neyman-Morgenshtern's usefulness functions, and provides examples of decision-making in investment lending by systematic organizations of the "Avionics" associations. The correct decision-making system can vary by its architecture:

• *Functional* (the simplest, most frequently encountered in practice, its rapid flexibility is in

the absence of a phase of placing data on a particular system on one platform);

• _Independent data vet_ (often found in organizations with independent system underlying organizations, the data is optimized in the window for users of the group that works with them);

• _A two-level_ _database_ (the central source of corporate information, where the data is stored in a single copy, a special employee is needed to operate the database);

• _A three-level database_ (a centralized source of corporate information, reflecting a data set in a database, is used to solve tasks for individual organizations, detailed information for end users have permission to receive information).

In the creation and implementation of information and management systems, it will not be far from the process of changing the organizational structure of the management of the educational organization. During reinjiniring, the educational organization will undertake information processing, resource management process optimization, and adapt existing software to new technical requirements.

The lack of a system for improving the quality of information and rehabilitating standards complicates the process of creating a university information system, so there is a need for sensitive analysis and correcting of information of a weakly regulated and poorly formed character. In this case, the main requirements for the information system should be determined by the head of the learning center in accordance with the opinions of experts in this area and the objectives set out.

The subsequent development of the information system in the automation of decision-making and the production of management decisions has led to the emergence of expert systems, which form an important part of artificial intelligence and is going down the road of modeling human thinking in management decision-making processes.

Installing management tasks should include the following organizers:

understanding the need for solutions, diagnosing and analyzing the situation.

Given the predictive methods considered, a relatively good way to predict time lines is to use a regression model. For the line being tracked, the model, which lies in the least middle square error of the parameter value from the trend line, and iterative calculations of its different values, are obtained by performing most tests. After evaluating the capabilities of ontological models, a database of knowledge that has been regulated and formed with them can be created on the basis of general terminology for many experts and software. Ontology is an adapter between the user and the system and allows you to divide knowledge into operational and declarative parts, as well as automatically change the system relationship with changes in formal definitions. Using an ontological model, you can create a complex model of the system, so an ontological style was used to describe software.

Research on literary sources has shown that the development and installation of information systems is mainly focused on higher or secondary professional learning systems. Therefore, the decision was made to develop an information system that would put decision-making in place.

Purpose: to increase the processing efficiency in additional professional educational organizations based on the theory of "nature and games" of the decision-making mechanism, to develop software and mathematical systems that support predicting and deciding audiences.

To achieve the goal, the following tasks were completed:

1. studying the process of making management decisions and existing information systems in additional professional educational organizations;

2. Description and formation of the field of science of secondary specialized educational institutions, based on the ontological model of information, used to manage information flows;

3. Training and staff retraining courses describe the number of listeners, predict and model the values of time series, check and analyze forecasts;

Develop a mathematical model for evaluating the effectiveness of teaching and develop software and algorithmic assessments of an intellectual system that quwatts decision-making.

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