

INCREASE FACTOR OF THE ENTERPRISE FUNCTIONING EFFICIENCY

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Abstract

The article examines the essence of the category "information support" and the information support components of the management system elements. Requirements for management technology, IT- specialists' professional profiles as personnel and competence components of information support have been considered.

Keywords: information, management system, communication, organizational management structure, managerial decisions, to achieve goals

Introduction

The formation of an effective management system is critical to ensure the management process, for formulation and use of the management capacity as the part of organization strategic competitive potential. The research of the organization management system components essence and interaction between them is increasingly important, their development level affects effectiveness and efficiency of communication processes, the result of which is making managerial decision as a "product" of the organization management system, aimed at achieving goals.

In scientific literature the problem of management systems formation is described in publications by I. Ansoff, Szegdy A., B. Milner, C. Heyets, F. Hmil, M. Meskon, M. Albert, G. Mitsberh, A. Cherep, M. Chumachenko and others [4, 10-13].

But effective management system support tools, including information aspect of managerial decisions and communication processes support require additional researches.

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The research purpose

To investigate the essence and meaning, structure and aspects of information support as a key tool in improving the company management.

Main body

According to scientists majority, management is an independent type of professional activity aimed at achieving certain objectives through the efficient use of material, financial, labor, information resources, methods, and management functions. Management uses a variety of methods, approaches and techniques that provide the ability to arrange, organize, direct effective execution of its inherent functions, procedures and operations required for administrative effects implementation [4, 5, 7, 10, 11].

The enterprise management quality is determined by the interaction level of the management system elements in accordance with certain goals. So, the formation and proper use of interaction information support between management system elements is important.

Studies show that the management system consists of such components: management agent (supervisor), management object (subordinate), functional support (management functions), methodological support (requirements, principles, methods), resources, organizational support, management technologies, management decisions, the approval of which requires information support.

The interaction between management agent and object involves the use of management techniques in accordance with the current organizational structure of management (MOS), which is responsible for the distribution of responsibilities and powers, management processes structuring (functions), adequacy of management techniques to develop managerial decisions aimed at achieving the system objectives.

To ensure the company development the company management system requires the integration of information support, which is filled and arranged with help of information flows.

Information flows development is provided with computer equipment and optional technical means, so the company can implement a system of automated information processing, which will improve its efficiency, management quality and

efficient use of its resources. Objectives change (improve) through information support, that leads to MOS evolutionary development [3].

In practice, the company independently chooses and organizes the management organizational structure, which should operate on the principles of systematic and situational analysis according to the following criteria: the enterprise life cycle, its size and type, production and technology category, culture, management behaviour, authority, strategies. Criteria of the management organizational structure efficiency should be consistent with the company development strategy, and compare the qualitative and quantitative measures of the management system of the particular economic agent.

Management technology, as scholars have noted, determines the sequence and procedures for implementation of the management system functions, system and order of the workflow in the company, the procedure of using a certain set of information processing technical means (collection, processing, storage, use). The basic requirements for management technology are the following:

- formulation of problems, the development and selection of decisions should be focused on the hierarchy appropriate level;
- information should come from all departments of the firm which are at different levels of control and perform different functions;
- choice and decision making should express the interests and opportunities of those different levels of management responsible for decision execution or interested in its implementation;
- strict adherence to chain-of-command relations in the management hierarchy, strict discipline, high standard.

The word "technology" in management system is closely linked to the process of algorithmic operations and procedures within the various functions of control system. Collection and processing of information in management system, training and managerial decision making, organizational work to implement the decisions - all these processes of administrative effects performed by a manager, should be considered as an arranged sequence of operations [3].

According to Chumachenko M. G. [13] the concept of "information support" has appeared in connection with the development of automated control systems, and is a

system of obtaining, evaluating, storing and processing of data for managerial decision-making (Fig. 1).

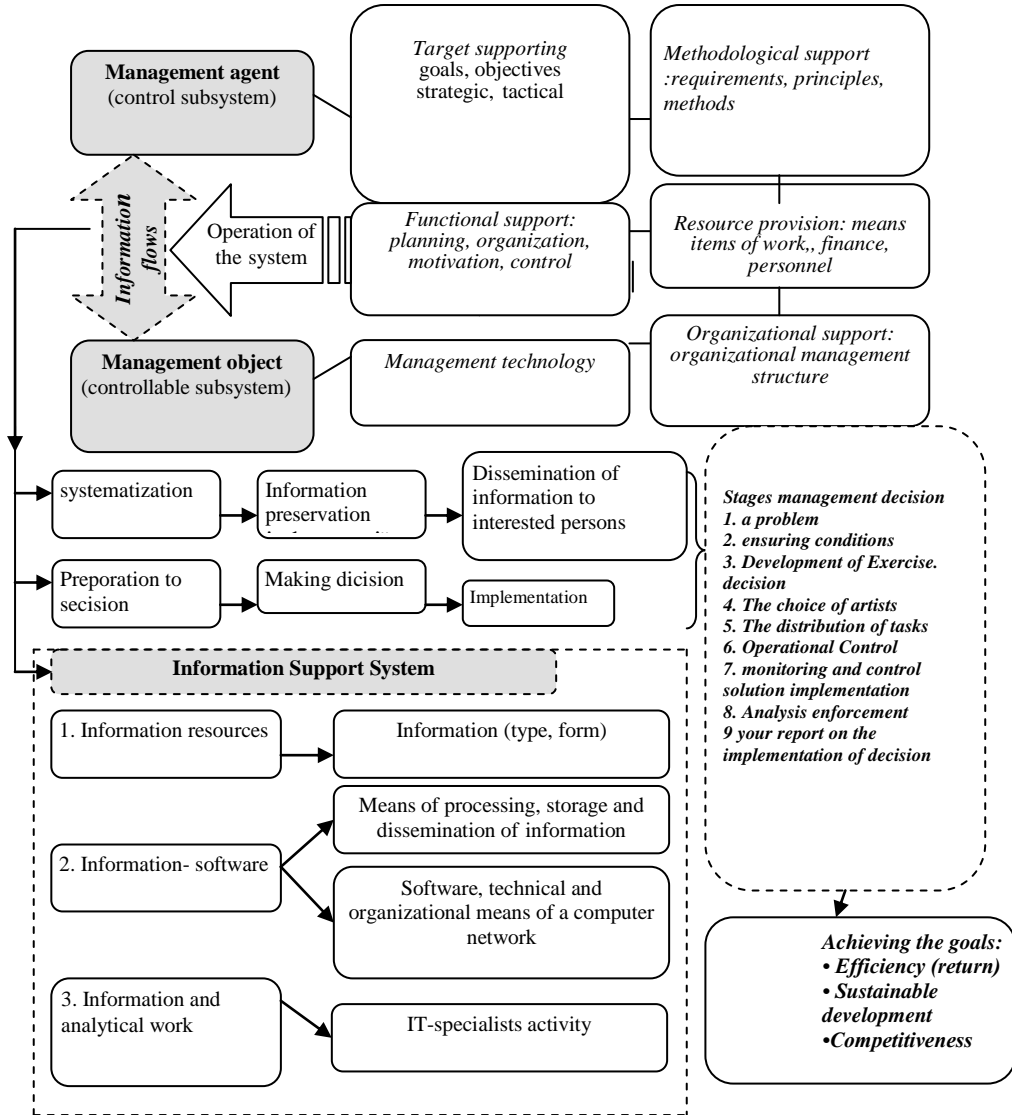


Fig. 1 Information support of management system elements interaction

The term management information support means the data received, processed, analyzed, stored and collected, as well as providing effective information for management decision-making. Bosak I.P. and Palyha E.M. [1] have another point of

view, which emphasizes that information support is the availability of necessary information for economic management contained in database information system.

Whereas, information systems are systems of storage, processing, conversion, transmission and updating of information with the use of computer equipment. Cherep A.V. [13], Vasyurenko O.V. [2] give the same definition of the term.

Thus, some researchers use the term information support to mean a collection of information (information base), and other researchers mean a system which includes information and hardware, software, IT, methodological support, systems of classification and information coding. Consequently, the concept of information support can be seen as a part of management system.

Thus, the subsystem of information support as tool for effective management should be understood as:

- a basic unit of any object of management system;
- a system of supplying information for management with the help of properly organized information policy.

In particular, an subsystem of information support includes receiving information, processing, storage, analysis and transmission to management entity for decision-making. A key factor in efficiency is a quick access and protection of such information, that can be obtained with the use of technical equipment, software and quality performance of IT professionals (Table 1).

Table 1

Characteristics of IT specialists professional profiles as a part of management system information support

Professional profile	Characteristics
Expert in automation and computer-integrated technologies	Performs preparations for automation system setting up; sets up measurement equipment and measuring systems, provides conducting their metrological inspection; sets control devices of automatic control systems; provides comprehensive adjustment of automatic process control; establishes and maintains software controllers; detects the current state of technological objects;

	adopts and implements solutions for the operation of automated process control systems; detects technical condition of automation; detects the state of software and hardware tools
Specialist in automation system design	Conducts a pre-project analysis, as an object of control; uses computer environment for development and identification of mathematical models of technological objects; creates a functional scheme of developed automation systems by means of computer graphics (AutoCAD, Visio, etc); conducts the necessary automation calculations, selects the hardware for automation system building, makes selected hardware automation specification
Specialist in research and development of process control systems	Analyzes functional and technological features of the controlled object and its process procedure, selects variable management; calculates hydrogasdynamic, thermodynamic and thermal parameters of the technological object and builds its mathematical model; sets up active and passive experiments to identify the technological object; uses planning methods of the experiment; analyzes reference quantity changes by means of the mathematical model, if it is necessary linearizes the mathematical model; uses computer environment for processing experimental data and the mathematical model of technological object (MATLAB, SIMULINK, MATCAD, MATHEMATICA, MARLE etc.); defines the disturbance and the possibility of compensation by selected channels of regulatory actions; synthesizes the structure of the automatic control system and implements it with a library of standard algorithms or programming controllers; selects the hardware of control action output with account for the characteristics of the final control element; determines optimal parameters for automatic regulator setting; checks the quality of the automatic control system in time and frequency domains with the help of computer experiment; determines the need of autoacquisition and if it is

	necessary selects the algorithm of autoacquisition.
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Efficient management assurance of economic system management depends on the availability of accurate, well-timed information. Based on the information that gets to control subsystem (management apparatus) the analysis is carried out, the administrative decision of any economic or social process is produced and formed, the implementation of which is analyzed for making future management decisions. Consequently, the process of information support is continuous and it is necessary to use quality information support for effective implementation of the tasks.

However, the effective result of the decision is influenced by the following factors:

- The quality, reliability and efficiency of receiving information;
- The transition process (computer hardware and software, the Internet network presence, correct and efficient document control procedure);
- Information intermediaries who are between the supplier and the recipient;
- Knowledge, experience and qualifications of management apparatus;
- External market factors, etc.

The implementation and effective management of information and its relationship between information flows determine the need to build integrated models of information support (e.g. computer system "management of business processes» (Workflow Management systems).

Conclusion

The management apparatus needs objective and practical information on specific point in time, depending on the management system structure that will use it. Information support management should be read as a group of implemented solutions in reference to the quantity of information, its qualitative and quantitative composition, location and forms of organization. In addition, the aim of information support management is the timely support of necessary and sufficient information for management decisions that ensure the efficient operation of the enterprise in whole and its structural subdivisions.

For successful implementation of the decisions you need not only timely received information, but its accuracy and precision. It is possible to support business objectives only with the simultaneous implementation of technical and organizational measures of improving the efficiency of information support. In addition, you need not only have available timely and accurate information, but to be able to handle it and make the necessary findings and implement management decisions. For this reason it is the necessary to organize the information support as the basis of management process and as a part of management system.

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