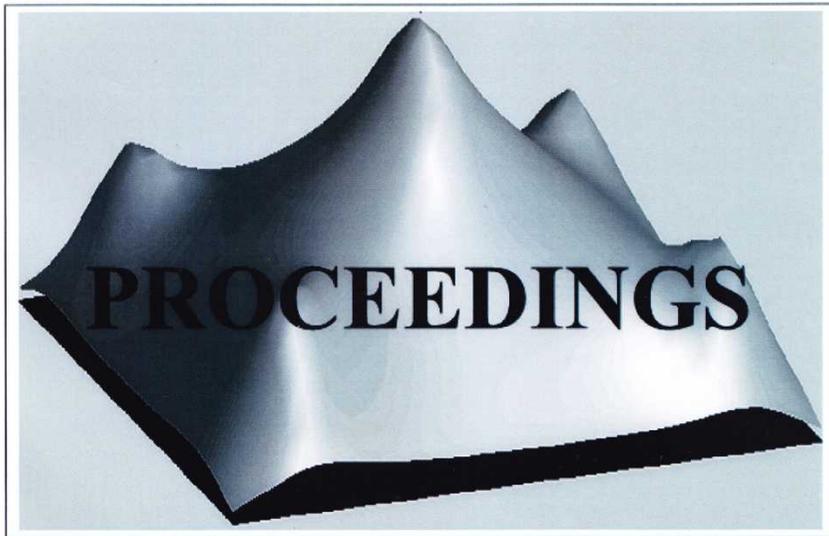




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SYSTEM OF DECISION-MAKING PROCESS

O.N.Yarieva, S.T.Karimova, D.Sh.Topvoldiev

150118, Fergana, Uzbekistan, Tashkent State Information technologies University Fergana branch,
Department of humanitarian-public sciences 185, Independent St.
Phone: (873) 2268231; 2268219 (+99893) 9832718 (+99891) 1155921

Abstract: In modern condition management activity is an important factor of the development to any organizations (the company), where acts the system a decision making. Certainly for acceptance of any decision concerning governing the organization is reliable perfected information. The Process decision making begins with problem-solving situation and ends the system of the choice of the decision, which action must convert the givenned situation. In given material introduces the process to sequences stage and procedures, having between itself direct and feedbacks at development decision making. The Process of the system decision making comprises of itself psychological, information and organizing aspects, which are considered in given material with standpoint of management.

Keywords: decision-making information, management decisions, analysis, effective management decisions, administrative decisions.

1. Introduction

For any decision, information is needed with the more complex decision comes the great the amount of information requirement. In addition, information must meet certain requirements. Be complete, accurate and timely.

There is a need for (support) the decision-making information that is properly selected, compiled, analyzed and systematized, that is suitable for making the right and informed decision in each situation. Another problem is the timeliness of the information.

Decision making is considered as a thought process, implying prior awareness of the problem, objectives and mode of action, the elaboration of different options. The most important feature of this process is its strong-willed character. In deciding to integrate the knowledge, interests and outlook of the person. Solution is a social phenomenon; it is always taken by one or more persons. The decision is the basis of self-identification, as any social type any character is revealed through action that leads to achieve a certain goal. Decision-making process begins with a problem situation and ends with choice solutions and actions that must transform it. This process can be represented as a sequence of steps and procedures, together with backward and forward linkages. Feedbacks reflect the iterative, cyclical nature of the relationship between the stages and procedures. Iteration in the implementation of elements of decision-making due to the need to clarify and correct the data after subsequent procedures.

2. Materials and methodology

A control activity serves modern conditions as one of the most important factors in the functioning and development of any firms. One of the priorities is the definition of the main theoretical and practical application of management positions. There are several points of view on the definition of management. Control is regarded as personnel management, as a function of production and as a decision-making system.

Technology management is considering the adoption of administrative decisions as a process consisting of three stages: preparation of solutions, decision making, and the implementation of solutions.

In preparation of management decisions an economic analysis of the situation at the micro and macro level, including search, collect and process information, and to identify and formulate problems to be solved.

At the stage of decision making under development and evaluation of alternative solutions and courses of actions carried out on the basis of multiple accounts; selection criteria for choosing the optimal solution; choices and make the best decision.

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At the stage of implementation of the decision being taken to concretize solutions and bring it to the performers, to the monitoring of its implementation; make the necessary adjustments and assesses the result of the implementation of the decision.

Each management decision has its particular result; it is an object of management activities is to find forms, methods, tools and instruments, which could contribute to the optimal result in specific conditions and circumstances.

The approach to management as a process of personnel management is about improving the efficiency of the organization which is achieved by increasing its human resources. This approach is characterized by a more pronounced sociological and psychological bias, which involves collaboration between workers and management personnel. Supervisors must constantly and comprehensively examine the incoming information for the preparation and adoption at its base management decisions, which must be agreed by all levels of intra-hierarchical management pyramid.

The amount of information that needs to be processed to produce effective management decisions, so large that it has long exceeded human capabilities. It challenges of managing large-scale modern production caused by the widespread use of computer technology, the development of ACS, which necessitated the creation of a new mathematical apparatus and economic-mathematical methods.

Among considering management as a function of the organization in general can be attributed P. Drakkera that makes "an attempt to develop technologies viewpoint, concepts and approaches to the question of what to do and how to set about it"[1].

According to the author, the most relevant for improving efficiency approach considering management in terms of decision-making. The difficulty lies in the fact that, on the one hand, the decision-making is like a tool to achieve their goals (e.g., Human Resources Management), and the other part itself is a complex system. Thus, the decision-making process is a tool for understanding governance in the broadest sense of the word, but also the decision-making system is investigated.

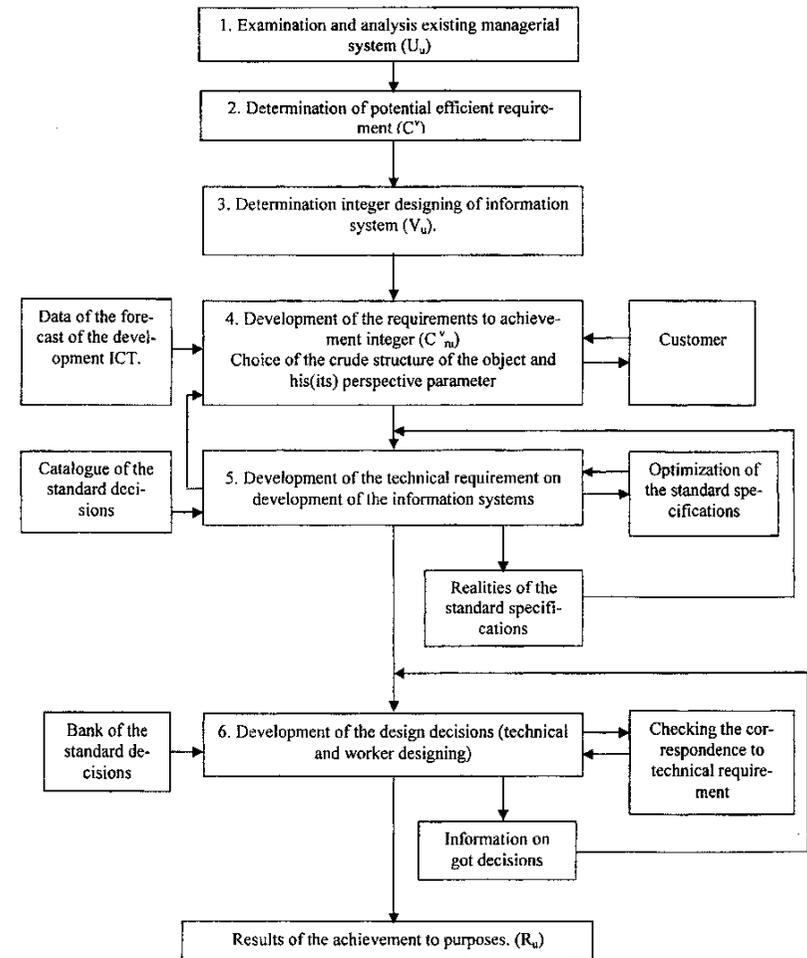
The fact that the consideration of management and how management personnel, and as a function of the organization of production is an attempt to separate consideration, without a doubt, the most important aspects of the activity. It should be noted that decisions anyway "permeate" and work with the staff and, of course, the implementation of the general (planning, organization, motivation, coordination, control) and private control) functions (analysis of object management, forecasting and development trends and many more). Consequently, the decision-making process takes on a special role - which is an integral part of any management activities necessary to achieve their goals in this activity.

Decision-making process is multifaceted. It includes his psychological, social, political, organizational, technological and informational aspects. Let us consider the last point.

The need for research in the field of information security is due to our opinion, the following factors: the presence of increasing amounts of information that must be processed as soon as possible; absence of effective methods of producing quality and most valuable information; need to carefully check incoming information (both for taking the decision itself, and for the consideration of alternatives); heterogeneity, and sometimes contradictory information received and methods of analysis.

"Because of poor information management processes ensure the efficient use of resources which does not meet reality, and some of them lost forever".

In order to avoid the dissatisfaction of information in the present time in enterprises organized and systematic efforts are made in the following main areas: the identification of problems and information requirements; the selection of information sources; the collection of information; data processing and the evaluation of its completeness and relevance; information analysis and the identification of trends in selected areas; the development of forecasts and alternatives enterprise behavior; the evaluation of alternatives to various actions, the choice of strategy and decision-making for managing the implementation of strategic plans.



Regardless of the different content of each of these aspects (the shaded area) display form for the DM (decision maker) is the same which goes for processing information. Thus, we can speak about "projection" of any of the faces of the decision on his face and certain information submitted in terms of other aspects of the information. Naturally, with different problems solved the projection of each of the sides of the polygon will vary.

Since we can speak of unity display different information on the content aspects of the decision, it is precisely this unity and enables communication between them.

Now we turn to the one who handles the information received by any means and decides that man. The point of view of scientists is very close to me, the foundation of human energy-information matrix, i.e essence of man appears deterministic information recorded in a certain way.

In the literature build an information model man. For example, in [2] the information model of the individual upon and solving social and economic problems (model reflects the results of so-

cio-psychological research). Philosophers define knowledge as a practice-proven experience of learning about the world, the reflection of reality in human thinking. Knowledge - what belongs to man?

"Information on the definition of Wiener - designation content obtained from the outside world in the course of our adaptation to it and adapt to our senses. The process of obtaining and using information is the process of adaptation to the contingencies of our environment and our ability to live in this environment."

Model of decision-making process is a specific sequence of steps to the requirements of each step and the necessary conditions that make possible the transition from stage to stage.

1. Inspection and analysis of the existing control system. Function of this component is to determine the initial state of the original system. It corresponds to that which is considered to be the starting point for achieving the goals of the system.

2. Identify potential effective information needs. Function of this component is to determine the potential effectiveness of information requirements (Cv), i.e., the performance of the IS - economic, social, technical. These information needs determine the problem is the starting point IS design.

3. Defining objectives IS design. Function of this component is to define the IS design (Vu). The global objective of any information system is complete and timely information needs of the end user (look at schematic diagram).

3. Conclusion

Based on all the above we can draw this conclusion: the problem posed, i.e. the decision-making process to ensure information that meets all requirements - can be solved. Currently, this problem is solved by the use of modern computer technology, the creation of various databases, expert systems and decision-making training. The principles of creating functions and working principles of these systems are described in the work. Such methods allow fairly simple, and most importantly quickly collect, process and analyze existing information. They also greatly simplify the decision-making process for managers at all levels. Implementation of the systems described above requires a fairly large investment, but they are certainly more than compensated. After all, as they say, who owns the information, controls the situation, who knows the situation, he owns everything.

Thus, considering the decision-making process as a process of information exchange, it is possible to talk about the collection and processing of information as some-energy system (i.e DMP) the particular set of data to obtain qualitatively new information.

REFERENCES:

1. I.A.M Karminsky P.V Nesterov Informatization business.
2. N. Wiener Cybernetics or Control and Communication in the Animal and the Machine.
3. Bagdanova E.L. Quality of information in the management processes / M.Aifa., 2000.
4. Grachov M. V. Management: System and situational analysis of managerial functions. M., 2003.
5. Lend P. Theory and Organization of American management. Moscow: Moscow State University Press, 2000.
6. Mouse I. Personnel Management - a key element of management intercompany // Problems of the theory and practice of management. 1995. N 6. P.108.
7. Peter F. Drakker Managing for results: Per. from English. Moscow: Technological School of Business, 2000.
8. Vilkas E.J, E.Z Maiminas Decision theory, information modeling. M.: 2001.
9. Polukarov V. L. Management. Tutorial - M.: 2009
10. Bagdanova E.L. Informatization management systems and decision-making in business: social and methodological aspects. S-Pb.: 2000
11. Litvak B.G Management decisions – M.: 2000
12. Karminsky A. Nesterov P.V Informatization business. – M.: Finance and Statistics, 1997
13. Oykhman E.G Popov E.V Reengineering business reengineering and information technology organizations. - Moscow: Finance and Statistics, 1997
14. For preparation of this work were used materials from the site <http://www.omsu.omsnreg.ru> <http://www.economyworld.com> <http://www.menagement.ru>

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