MANAGEMENT DECISION AS A COMPONENT OF EFFECTIVE ORGANIZATION MANAGEMENT

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Key words: management decision; models of management decision; methods; management; pharmaceutical management

The article is devoted to substantiation of the theoretical aspects of management decision, its modern methods and adaptation of classical theories to pharmaceutical management. The efficiency of enterprises depends on the level of the enterprise management organization and decision-making efficiency. Most management decisions are made under uncertainty, which causes risk in the organizations activity. Each problem of decision-making is different. Some initial situation, alternative solutions, implications of different options are common to all the problems. With these components any problem decision can be described. The requirements for effective management decisions have been analyzed. The algorithm for management decision making when applying different types of management at the enterprise.

The current state of the market economy requires adequate types of management to these processes at all levels and sectors of the economy. This problem is of particular importance at the level of pharmaceutical companies because the market orientation of the pharmaceutical sector increasingly requires the ability to see perspectives and make strategic management decisions by managers for the effective performance of both commercial and social functions.

Providing market stability and success of pharmaceutical functioning in a competitive environment depends on effective management. The changes occurred in the economy and politics of Ukraine revealed a number of controversial and topical issues that are of theoretical and applied nature and are essential for the sustainable functioning and development of the pharmaceutical sector of the economy. Therefore, the process of conceptual and practically significant developments of management decisions making problems considering risk factors and uncertainties of the environment and healthcare reforms, including the pharmaceutical area, is of special importance.

A significant contribution to the development of the conceptual foundations of the decision making theory was made by such domestic and foreign authors as V.P.Hlushko, E.P.Golubkov, I.B.Oleksiv, S.M.Zadorozhna, M.V.Tulenkov, H.Rayfa, G.Simon, E.Hunt, G.Hale, etc. To study management decisions is impossible without the theoretical background and practical experience in management. The studies of R.Ackoff, I.Ansoff, W.Morris, I.Parsons, T.Peters were devoted to the theory and practice of management aspects.

The works of such leading Ukrainian scientists as Z.M.Mrushko, A.S.Nemchenko, M.S.Ponomarenko, V.M.Tolochko, V.A.Zagory, D.S.Volokh, B.L.Parnovsky, O.L.Grom et al., are devoted to problems in the theory of pharmaceutical needs adequate management practices and realities of the national pharmaceutical market.

However, the task of improving the efficiency of the development process and decision-making requires a systematic approach to the study of the nature, specific characteristics and procedural organization.

The aim of the study is development and updating of theoretical ideas about the nature and procedural organization of management decisions and substantiation of the efficiency improvement of enterprises in the pharmaceutical industry.

Materials and Methods

The methodological and theoretical framework for the study was the papers of domestic and foreign scholars and experts in the field of management.

While carrying out the research such general scientific methods as systematic, and comprehensive situation approaches, as well as the general theory of management were used.

Today’s unpredictable environmental factors significantly affect the operation of business. In these circumstances compliance with the requirements of the enterprise’s manageability is one of the most important criteria for evaluating the effectiveness of its activities. Thus, the more the environmental effect is, the more attention managers at all levels of government must pay to the study of the processes occurring in the environment of the organization. The primary means of the enterprise...
adaptation to uncertain and rapidly changing environmental conditions is an effective management system with the appropriate set of methods, tools, styles, providing formation and implementation of the optimal variant of the entity [1, 3]. According to experts in the field of management today’s leaders (regardless of their hierarchy) are under pressure of such environmental factors as increased competition; limited time, increase of the information flow, error rates and the level of uncertainty of market dynamics changing market needs and expectations, falling demand and its solvency, the complexity of the structure of business and its operating environment in general [2, 7, 8]. Diversity of styles and management practices, variability of personal characteristics of the head, as well as a direct impact on his/her duties are the core of factors of the internal environment of the organization. Combination of external and internal factors creates a cumulative effect on the head of any rank in making his/her managerial decisions (MD).

The study of the works of the leading experts in management, economics, sociology, psychology and other research areas that influenced on the formation of the modern model of MD is of a great importance for understanding the nature and characteristics of MD making in organizations, including those of the pharmaceutical branch [4-6, 10] (Table).

![Fig. 1. Foreign practice of MD making.](image)

| Country       | Approaches | Factor                                                                 |
|---------------|------------|------------------------------------------------------------------------|
| USA           | mainly centralized MD. | the need for control over implementation of MD.                         |
| Japan         | centralized and decentralized. | top management has considerable power, which is verifiable by lower managers; lower managers have the authority to review, analyze, critics of the recommended options of MD. MD making is done by consensus with previous thorough consultation. |
| France        | Different approaches, but recently there has been a trend towards centralization. | Senior Managers are graduates of prestigious higher schools that do not have adequate confidence in the management of middle managers. |
| Germany       | Preferably centralization, autocracy, hierarchy. | specific legal system (Codetermination) requires discussion of MD options by workers and their managers; managers pay more attention to performance, quality of products and services than to the management of subordinates; the managerial education is predominantly technically oriented. |
| United Kingdom | Preferably decentralization. | top managers (upper-level) do not understand the technical details of business and convey the right to make MD to the lower level; and senior managers (top-level) also depend on the mid-level manager in direct MD making. |
| Scandinavia   | Decentralization and participation. | the legal system is similar to the German one (Codetermination); the main concern of managers is the quality of of work life; importance of individuality in the organization. |
| Italy         | Using traditional and proven means of MD making. | respect for the history and traditions of the country; the global role of the Roman law, which is the basis of modern civil law. |
| Egypt         | Slow and sensible MD making. | time is not valued as expensive as in the West because history is considered to be important according to the Egyptian proverb: “All fears time, but time fears the pyramids”; the process of life is valued more than the business results. |
Basic classical models of management decision making

| MODELS OF G. SIMON |
|---------------------|
| The concept of Bounded Rationality | Process of MD making is represented by three stages:  
1. Search of the reasons for the need to make MD  
2. Modelling of possible situations and analysis of activities  
3. The choice of a particular course of activity |
| The model of “economic man” | The behaviour of an “economic man” provides the best selection of possible courses of action for making MD. It is assumed that an “economic man” knows all the choices and is able to foresee all the possible consequences of each alternative MD in advance and use practice (P), logic (L), intuition (I) |

| MODELS OF J. MARCH |
|---------------------|
| Garbage Can Model | Management decision making in organizations and development of the concept of bounded rationality. Three types of constraints that are inherent to managers and affect the MD are identified: cognitive; political; organization. According to him the process of MD has four features:  
1. Conflict quasi-resolution (special measures of quasi-resolution of conflicts that weaken, reduce them and make it possible to coexist with them. Such measures include mechanisms of “local rationality”, “acceptable level of decisions” and “consistent achievement of objectives”)  
2. Avoiding uncertainty. (Reducing the impact of uncertain factors of the environment by signing exclusive contracts with partners and customers, cooperation with authorities, negotiation, gathering marketing information)  
3. Problem search (“localization” of searching the options around some well-known solution used in the past. Innovative, radical solutions are usually ignored in order not to make changes and violate the “established order of things”)  
4. Organisational learning (any MD making is a learning process. Acting by trial and error, people learn, knowing from their own experience which MD is permissible or effective and which is not, what under the present circumstances is permitted and what is forbidden, etc. The knowledge gained adapts in future to new situations and objectives of activity) |

| MODELS OF CH. LINDBLOM |
|------------------------|
| Synoptic approach | Deductive scheme of adoption of MD, which provides:  
- determination of all the factors that affect the adoption of MD; their ranking in order of priority;  
- determination of information and measures to compare each alternative with any other;  
- obtaining complete information about all the factors in order to determine the best alternative by “logical deductive calculations” |
| Strategy of local increases | Decision-making is aimed to have slight changes being made in small increments (“small change of important value”). Characteristics of the strategy: limitation (problem simplification, consideration of a limited number of alternatives and a limited number of their consequences), orientation to the means (adaptation of purposes to means), reconstruction (MD making is accompanied by continuous changes (reconstructions) of factors affecting the outcome of the choice), seriation (MD making is a series of attacks on persistent problems for their detection and solving), practicality (small improvements according to the principle “here and now” in practice are better than a planned move to distant targets), fragmentation (different participants in the MD making process at different times may make different estimates about the same problems) |

| MODEL OF V. VROOM |
|-------------------|
| Management decisions by a leader | According to him there are five styles of MD:  
A1 + A2 – autocratic style, self acceptance of MD;  
C1 + C2 – consultative style, MD is taken independently, they only reflect the opinion of subordinates.  
G2 – group style, MD is made during the joint discussion without the administrative influence over the Group;  
(G1 – corresponds to the extreme case where there is only one subordinate) |
| The normative model of MD | It provides determination of criteria for assessing the problem situation, which include:  
- significance of the MD quality and availability of sufficient information or experience of the head for making a high-quality MD;  
- degree of structuring of the problem;  
- significance of the consent of subordinates with the MD accepted for its effective implementation;  
- probability that the autocratic decision of the head will be supported by subordinates;  
- motivation of subordinates to achieve organizational goals that are pursued in solving this problem;  
- likelihood of conflicts between subordinates in making MD |

| MODEL OF M. CROZIER |
|--------------------|
| Conflict-game model | It specifies that the organization is a collection of interacting “power” games or the so-called ensemble of games. Game is a certain type of relations that arise in any organization. The “players” are heads and subordinates, managers and workers, divisions and groups. The game rules are not formally established, and gradually formed through evolution by analyzing the behaviour of players in similar situations |
through the practical implementation of scientifically based methods of decision-making (Fig. 2).

However, it seems clear that the choice of MD method is defined both by objective factors and the specific subject of application, which can be managers of the certain management level. But usually they (methods of MD) must be accurate, reliable, motivated, determined both in time, methods, and in choosing the executive; they should minimize the uncertainty of the external and internal environment, and thus, reduce or completely avoid the risk in MD making [12-16]. An important component of effective management of the organization is the quality of MD.

The main conditions to ensure high quality and efficiency of implementation of MD at pharmaceutical companies include:

- application of scientific approaches to MD development;
- the study of the effect of socio-economic laws on the effectiveness of MD;
- providing a manager with qualitative information that characterizes the parameters of “input”, “output”, “environment” and “process” in the system of management decision implementation;
- automation of continuous data collection and processing in the process of MD implementation;
- application of the methods of functional – cost analysis, forecasting, modeling and economic feasibility of implementation of each decision;
- structuring of the problem and building a “tree” of goals;
- providing comparability of alternatives of MD and their multiple variants;
- compliance with legal validity of MD;
- development and functioning of the system for responsibility and motivation of qualitative and effective implementation of this decision;
- a clear mechanism for implementing solutions based on the performance discipline.

The most important aspect of organizational development and implementation of MD is organization of the sequence of work required to complete this process. We believe that for practical implementation of this process the type of management that managers of different levels of management use in the company regardless of the industry sector, legal status and ownership may be of special importance. Within the framework of the research conducted we detailed the possible algorithms for developing and making MD in certain types of management, which are now commonly used in organizations of the pharmaceutical branch (Fig. 3).

Thus, MD making in traditional management is based on the study of the past experience in solving similar problems in a particular organization, and predicting the effects of their analogy. These features have their impact on the MD algorithm comprising the steps related to identification of the similar problems and prediction of results similar to the results already obtained.

The principal difference of the algorithm of MD making in systemic management is implementation of stages of gathering information about the system and relations of its elements, determination of objectives for management of the element in solving the problem at the system level, generation of the list of possible control actions in relation to the system – the source of the problem, and prediction of the consequences of these impacts for the system level.

The situational approach focuses on the fact that suitability of different management practices is determined by the situation, therefore, the decision-making algorithm includes the stages of collecting and analyzing information concerning the situation, determination of...
objectives for management of the situation when solving the problem and prediction of the consequences of control actions for the situation.

In social management when making MD special attention is paid to consideration of permissible and impermissible implications of options of control actions according to various parameters. It should be emphasized that social and stabilization types of management have the longest chain of the manager’s operations concerning MD. It can be explained, firstly, by the social orientation of the subjects of the pharmaceutical industry (manufacturers, wholesale management, retail sector), and secondly, the current instability and uncertainty of environmental factors, increased competition at the pharmaceutical market with simultaneous reduction of consumer demand for pharmaceutical products and solvency.

For specific tasks using a particular type of management the algorithms may vary according to the specificity of a particular task.

**CONCLUSIONS**

The effectiveness of enterprises in a competitive environment depends on the level of the enterprise management efficiency and decision-making. The vast majority of administrative decisions have been taken under conditions of uncertainty, which causes risk of organizations. Uncertainty in decision-making is understood as availability of several possible outcomes and alternatives, and arises because of the influence of uncertain factors, including factors of personal uncertainty, and uncertainties of the environment, including natural and behavioral uncertainty.

Each problem of decision-making is different. Some initial situation, alternative solutions, implications of different options are common to all the problems. With these components any problem decision can be described. Taking all these into account the algorithm in the managerial decision has been developed. MD is quite complex and cannot always take place in accordance with the stages mentioned above. Some procedures, stages may be absent or occur in parallel, and sometimes they need to be repeated. The quality of the decision making process is directly dependent on the completeness of all factors that significantly affect the consequences of the decision.

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### TYPES OF MANAGEMENT

| Traditional management | System Management | Situational management | Social Management | Stabilization management |
|------------------------|-------------------|------------------------|-------------------|------------------------|

1. Defining the problem
2. Collection of information
3. Information processing
4. Diagnosing the problem
5. Determination of management objectives in solving problems
6. Development of criteria of MD efficiency
7. The study of changes of parameters of the object
8. Estimated time to perform management operations
9. Distribution of time on operations of preparation, making and execution of MD
10. Generation of compensating effects and forecast of consequences of their application
11. The choice of the best MD according to the criteria adopted for optimality
12. The choice of the best MD making, its presentation, making available to performers, execution and control of implementation

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**Fig. 3.** The algorithm of MD depending on the type of organization management.
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11. УПРАВЛІНСЬКЕ РІШЕННЯ ЯК СКЛАДОВА ЕФЕКТИВНОГО МЕНЕДЖМЕНТУ ОРГАНІЗАЦІЇ

В.В.Малий

Ключові слова: управлінське рішення; моделі управлінського рішення; методи; менеджмент; фармацевтичний менеджмент

Стаття присвячена обґрунтуванню теоретичних аспектів управлінського рішення, його сучасних методів та адаптації класичних теорій до фармацевтичного менеджменту. Ефективність діяльності підприємств залежить від рівня організації управління підприємством та оперативності прийняття управлінських рішень. Більшість управлінських рішень приймається в умовах невизначеності, яка служить причиною ризику в діяльності організацій. Кожна проблема прийняття рішення має свої особливості. Загальним для всіх проблем є певна вихідна ситуація, альтернативні варіанти рішення, певні наслідки різних варіантів. За допомогою цих компонентів можна охарактеризувати будь-яку проблему прийняття рішення. Проаналізовані вимоги до прийняття ефективного управлінського рішення. Розроблено алгоритм прийняття управлінського рішення при застосуванні на підприємстві різних видів менеджменту.

12. УПРАВЛЕНЧЕСКОЕ РЕШЕНИЕ КАК СОСТАВЛЯЮЩАЯ ЭФФЕКТИВНОГО МЕНЕДЖМЕНТА ОРГАНИЗАЦИИ

В.В.Малый

Ключевые слова: управленческое решение; модели управленческого решения; методы; менеджмент; фармацевтичный менеджмент

Статья посвящена обоснованию теоретических аспектов управленческого решения, его современных методов и адаптации классических теорий к фармацевтичному менеджменту. Эффективность деятельности предприятий зависит от уровня организации управления предприятием и оперативности принятия управленческих решений. Большинство управленческих решений принимается в условиях неопределенности, которая служит причиной риска в деятельности организаций. Каждая проблема принятия решения имеет свои особенности. Общим для всех проблем является определенная исходная ситуация, альтернативные варианты решения, певные последствия различных вариантов. За помощью этих компонентов можно охарактеризовать любую проблему принятия решения. Проанализированы требования к принятию эффективного управленческого решения. Разработан алгоритм принятия управленческого решения при применении на предприятиях различных видов менеджмента.