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Interactivity of Management Functions

The Ukrainian science of management is rapidly developing, with several newly-created research centers engaged in applied management studies. The purpose of the study is to give a critical review of the essence of the functional staff management and formulate propositions on its improvement.

The range of managerial functions is defined by considering the management in the two organic dimensions: management essence, characterized by universality of managerial activities; and management content emanating from trends specific to a management object. The four general functions can be outlined by this approach, planning, accounting, analyzing, regulating. Once any of these functions is excluded from the management cycle, the latter becomes impossible or, rather, inefficient. Therefore, from the viewpoint of cybernetics, a management function can be regarded as a sub-system in the management system at enterprise (company). Therefore, the accounting sub-system should be distinguished in a functionally developed management system of special purpose.

Keywords: *functional staff of management, planning, accounting, analysis, regulation, interrelation scheme of management functions.*

Problem setting. Ukrainian management science has been rapidly developing. In a relatively short period of time a number of research centers were established, engaged in the studies of theoretical and applied aspects of governance, scientific cadres were formed in order to work on various problems in management science. Some production and economic experiments were also carried out. Evidence to success of management is publication of many papers on various aspects of management.

Literature review. The review of works by I. Ansoff, K. Noumenon, S. Illyashenko, E. Campbell, L. Summers, M. Meskon, M. Albert, F. Hedouri, H. Mintsberg, J. Quinn, S. Hoshal, B. Alstrend, J. Lempel, D. Hussey [1–8] and others, provides a basis to assert that management as a science now represents a symbiosis of several main directions.

The purpose of the study is to identify links between management functions by critical analysis of their essence, and formulate propositions on improvement of management functions by setting up links between them.

Results. It should be noted that experts mostly agree on the main principles and scientific status of business management. The majority points to the need for independent existence of a section, theory of management, because management has broader methodological issues that should not be considered within conventional areas of management science.

The essence of management may be revealed most completely in its functions. Unfortunately, interpretations of the concept of "management function" and definitions of "control" found in the literature are different.

In our opinion, a more precise consideration of the management functions content belongs to A. Lesyuk and A. Ustenko who regard the functions not only as a special kind of management, the outcome of the process of division of labor and specialization in management but also as a management area that is characterized by its autonomy: "The functions of management are special activities that reflect trends or stages of targeted influence on human relations in the production process" [9, p. 856].

Significantly different are the authors' interpretations of the range and quality of management functions.

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M. Meskon, M. Albert, and F. Hedouri in their fundamental work distinguish the following management functions: planning, organization, motivation and control [10, p. 253].

V. Sopko and V. Zavgorodniy distinguish the following management functions: accounting, monitoring and analysis [11, p. 4].

A group of authors, F. Butynets, O. Voynalovych, I. Tomashevskaya, believe that the functions of management include, apart from accounting, planning, analysis and control [12, p. 21].

Some authors tend to innumerate much more functions in business management. For example, Russian scientists V. Kyerimov, O. Epifanov, P. Syelivanov, M. Kryatov emphasize that "the main functions of production management include: organization, regulation, planning, coordination, motivation, accounting, monitoring, analysis and control" [13, p. 22]. In another work they argue: "management of distribution activities are performed by functions which can be combined into four groups:

- 1) the functions of analysis, forecasting and planning;
- 2) the functions of organization;
- 3) the functions of accounting and control;
- 4) the functions of regulation and stimulation" [13, p. 18].

Not intending to make a comprehensive and critical review of interpretations of management functions, we will highlight the most fundamental points:

- confusion of functions of a controlling sub-system and those of a controlled sub-system, with the resulting inclusion of functions that cannot be classified as management functions;
- simplistic approaches to interpretation of management functions, by only enumerating them or defining them in a broader sense;
- varying interpretations of the same management function;
- organization is often included to the functions of management, although, in our view, any organization is nothing more than specific and interactive components of a controlled sub-system, resulting in the organization's need for management;
- wrong inclusion of stimulatory function to management functions, as it is rather a management method providing for optimal interaction of various part of a controlled sub-system;
- When the function of control is included in management functions, it is considered on a par with other functions, although control is a function incorporating two other functions, accounting and analysis.

A more correct approach is to determine the functions of management by approaching management as the organic integrity of the two dimensions: the essence of management, with the implicit flexibility of management, emanating from the integrity of management principles in managing various categories of entities, and the contents of management, with the implicit specificities of management, emanating from specific developments in a managed entity. On the basis of the above thesis, the four broader management functions can be distinguished: planning, accounting, analysis, control.

Each of the functions in the process of further division and specialization in administrative work can be differentiated into several components. For example, planning can be differentiated as perspective planning, long-term planning, and operational planning. O. Khitrova notes that "in practice, strategic, short-term and operational planning" are used [14, p. 72]. Accounting function can be differentiated into unigraphic, desk and digraphic accounting.

Regarding management functions of planning, an interesting argument is put by U. Rasulova. According to her, "... when the only performance criterion is targeted figures and beating the target, there is a real danger that the planning process in general will be meaningless because the targets will be deliberately reduced" [15, p. 29]. According to Peter Lorange, "... the planning process is the tool that helps in making management decisions. Its mission is in implementing innovations and change in the organization in a sufficient degree" [16, p. 2].

The main objective of accounting is to record processes that actually occur and control execution of a business plan as a whole, each part of it and in each time period. By providing regular collection and generalization of information about actual proceedings of business processes, accounting enables to identify various deviations from the targeted figures and parameters of development. In this capacity, accounting lays the basis for analysis, regulation and maintenance of managed activities.

Another important function of management is analysis. Producing of accounting information is not identical to producing information about business processes. Understanding of the business processes can only be achieved by understanding information through analysis of the data produced. The analysis allows us have quantitative and qualitative assessment of change in business processes at managed entities and, through comparing targeted and reported data, to find the losses and their reasons. In view of this, analysis provides the basis for making management decisions.

Regulation is a function related with making business decisions.

The most active component of regulation is implementation of taken decisions, which is the final phase in management. The main objective of regulation is to eliminate the impact of adverse factors on business processes at managed entities in various situations, to keep the parameters of these processes within preset or optimal range.

The function of regulation is based on economic analysis and involves decision making to adjust business plans, improve accounting, implement technical, economic and organizational measures in order to eliminate deviations and optimize the managed process. In the real conditions of business enterprises, only one part of the solutions is implemented in functional units, whereas the other one – in line units where the direct impact on the process is realized. A correct decision made in a particular situation involves comprehensive account of factors and constraints that are under or beyond management and control.

The main management functions are closely related and, if taken together, organize the management process with closed profile. The profile is consisted of managing influences directed from the managing unit to managed entity, and feedback from the managed entity to managing unit (Fig. 1).

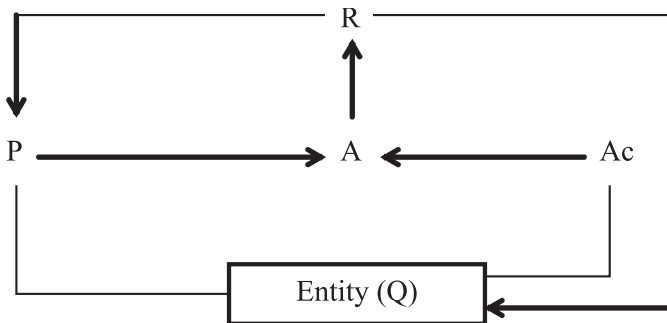


Figure 1. Scheme of management functions relationships:
P – planning; *Ac* – accounting; *A* – analysis; *R* – regulation
 Source: Developed by the author.

Formally, the correlation of functions in the management process can be shown as a graph

$$f S, w, \text{де } S = \{P, Ac, A, R, Q\},$$

and the system of relationships is defined by many couples in which the first element is the information sender, and the second one is the information receiver (formula 1):

$$w = \{\langle P, Q \rangle; \langle Q, Ac \rangle; \langle P, A \rangle; \langle Ac, A \rangle; \langle A, R \rangle; \langle R, P \rangle; \langle R, Q \rangle\}. \quad (1)$$

This scheme, allowing for understanding of general principles of management, is applicable to various management processes. However, it should be borne in mind that in business realities interactivity of functions is more complex. For example, the data from analysis can be used to perform the functions of strategic planning. In this case, a correlation of the functions A , P occurs. In addition, management functions involve methodological links: the accounting methodology depends on the planning methodology, and the analysis methodology depends on the methodology of planning and accounting and so on.

Conclusions. Management includes four related functions: planning, accounting, analysis, and regulation. When any function is excluded from the management cycle, management will be impossible or ineffective. Therefore, from the viewpoint of cybernetics, a management function can be regarded as a sub-system in the management system at enterprise (company). Therefore, the accounting sub-system should be distinguished in a functionally developed management system of special purpose.

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Взаємозв'язок функцій управління

Визначено, що управління включає чотири самостійні взаємопов'язані функції – планування, облік, аналіз і регулювання. Вилучення із циклу управління будь-якої з цих функцій робить управління неможливим або неефективним. Доведено з точки зору кібернетики, що будь-яку функцію управління можна назвати підсистемою системи управління підприємством, а відтак правомірно виділити у функціонально розвинутій системі управління спеціального призначення підсистему бухгалтерського обліку.

Ключові слова: *функціональний склад управління, планування, облік, аналіз, регулювання, схема взаємозв'язків функцій управління.*

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Взаимосвязь функций управления

Определено, что управление включает четыре самостоятельные взаимосвязанные функции – планирование, учет, анализ и регулирование. Исключение из цикла управления любой из этих функций делает управление невозможным или неэффективным. Доказано с точки зрения кибернетики, что любую функцию управления можно назвать подсистемой системы управления предприятием, а потому правомерно выделить в функционально развитой системе управления специального назначения подсистему бухгалтерского учета.

Ключевые слова: *функциональные составляющие управления, планирование, учет, анализ, регулирование, схема взаимосвязей функций управления.*

