

# Information Resources for Financial Monitoring in Enterprises

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*ABSTRACT* – For their operation, organizations employ a particular combination of human, financial, material and information resources. Except for land, capital and labour, information has become the fourth means of production since it is used for achievement of the goals. Not all information that appear in economy becomes a means of production; this happens only in the case of information which shows nature of economic resources. W. Olejniczak emphasizes that a set of information, in order to become an economic value for an enterprise, must form an ordered set. Financial monitoring is one of the most creative tools for management, allowing for creation of new information and decision-related resources.

*KEY WORDS:* financial monitoring, production, management, enterprise, decision-making, information

## Information gap in the process of decision-making

Under conditions of changing economy, information performs three functions (Penc 2001):

- it is a commodity; transactions might concern information-related products (particular type of information saved on a suitable carrier) or information services which consist in acquisition and making available a particular piece of information,
- it is a resource, i.e. a group of particular pieces of information collected in suitable carriers, available to potential users, used in widely understood social and economic life,
- it is a production factor.
- It is emphasized that information sets might be analysed in three aspects (Olejniczak 1989):
- syntax – by investigating the relationships between symbols representing economic information, without consideration of its content,
- semantics – by investigating the content of economic information and the method of its representation by means of symbols,

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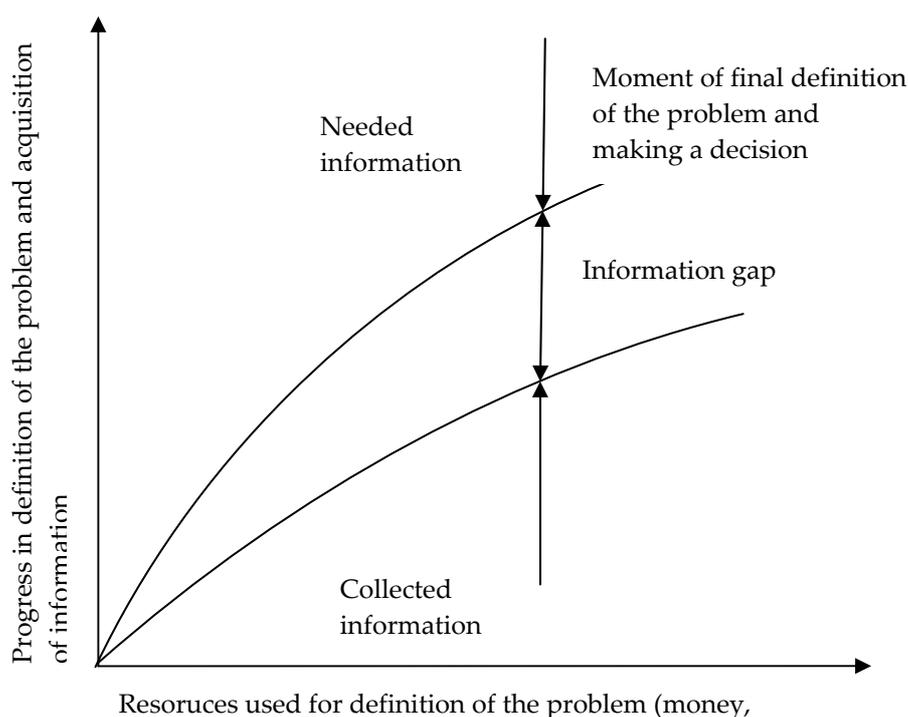
- pragmatics – by investigating economic information from the point of view of its value for the recipient.

Solving decision problems is connected with continuous accumulation of information. The difference between information which decision-makers would like to have and the information that can be actually acquired is termed 'information gap'; it denotes sensation of lack of information, knowledge or understanding of a problem, which is necessary in decision-related situation.

This indicates that it is of a highly subjective nature while its main properties include:

- reference to a particular subject (lack of information sensed by a person is not necessarily sensed by another),
- susceptibility to time factor (with the course of time and acquisition of information, the gap can be extended or reduced),
- fuzzy information (limits opportunity to define its scope) (Flakiewicz 2002).

Figure 1. The concept of information gap in the process of decision-making



Source: (Rabin, Jackowski 1988)

For the purposes of management, it is essential that a particular quality of the prepared information, being the basis for decision-making, is ensured. This problem was emphasized by J. Penc. The author argues that proper decision is composed of 80% of information, 10% of inspiration (invention) and 10% of managers' intuition (sensing) (Penc 2001).

Functional properties of information obtained from users are presented in Table 1.



Table 1. *Quality features of output information*

<b>Feature</b>	<b>Characteristics of output information</b>
Reliability	factual (according to actual state) description of economic events and states
Selectivity	Adapted to the characteristics of the problem or used method of management
Addressability	Adapted to individual need of a particular recipients, determined by the nature of the tasks they perform
Relevance	Relevant to particular demand for information (providing recipients with convenient tools for searching and extraction of data)
Right on time	Delivered on demand in right time (during decision situation) or periodical data within clearly defined deadlines
Requested form	Alphanumerical (text, tabular or graphical) with the level of detail (elementary data or aggregated, levels of summaries) and the carrier (screen, printouts, magnetic carriers) according to the recipients demands

Source: (Niedzielska 1998)

Maintaining quality features of information affects its value, suitability and usefulness within information base in a particular enterprise.

### **Position of financial monitoring in information base in enterprises**

Monitoring is an informational mechanism which allows for tracking quantitative and qualitative changes of some predetermined objects of observations, using particular techniques of registration.

Subject literature points to the following functions of monitoring:

- collecting and processing of information and distribution of this information (Kowalczyk 2003),
- formation of normative models, formation of empirical models and assessment of information and information processes (Oleński 2001),
- definition of research areas in enterprises subject to monitoring, definition of standards and criteria for these areas, selection of rules for response to deviations and creation of organized forms of informational feed (Leszczyński 2002),
- identification and selection of object of observation, description of objects by means of a pattern, registration of the results of object operation, comparison of patterns to the results, ordering and making available the results and patterns (Mytlewski 2007).

On the basis of the abovementioned functions, it can be concluded that monitoring can be perceived as:

- observation and suitably organized registration of all the parameters, events, situations connected with object operation, which might affect functioning of the whole object or its considerable part,

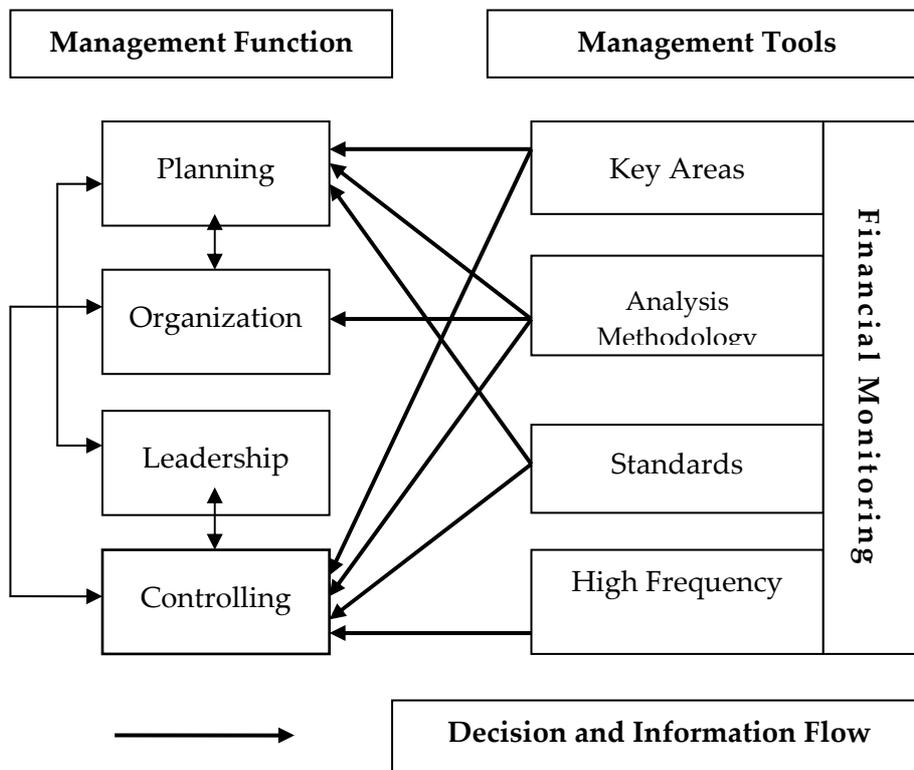


- current control of execution of the plan along with confrontation of the degree of using budget with the plan for the performed tasks,
- arduous research work allowing for assessment of decision accuracy and its correction as need arises,
- informing decision-makers about possible threats and forcing them to respond.

Application of the concept of monitoring for operation of companies allows for separation of a research area for financial monitoring from the wholeness of its business activity.

Financial monitoring is a tool for management in the area of functioning of financial processes in enterprises. It is understood as a process of continuous economic and financial analysis supporting the process of making decisions by managers.

Figure 2. Place of financial monitoring in management system



Source: (Skowronek\_Mielczarek, Leszczyński 2007)

Implementation of financial monitoring calls for meeting the following conditions:

- definition of the need for continuous analysis,
- proper description of financial events resulting from company's operation using particular methodology.

Investigating of information needs in a company requires methodical approach; example of such approaches are presented in Table 3.



Table 3. Methodical approaches used to define information needs of users

Method	Description	Application
By-Product	Investigation of needs is a side-effect since its main goal is to investigate final product	Used during development of subsystem problems; advantages include labour-effectiveness and short time necessary for investigations; disadvantages: in most of cases decision – maker needs are only partially met
Total Study	Investigating of bigger group of executives	The critical areas of activities are defined, however, it requires use of considerable resources
Critical Success Factor	The areas which should be under constant supervision of management are defined	Analysis of progress in realization of tasks allows on current assessment of management performance; high labour-consumption of work
Key Indicator System	Rests on selecting of key indicator of 'health' within an organization aimed at collecting of the data which can be processed into different sets of information	It allows for separation of common types of functions, whose performance requires relevant information. An attempt to identify environment and to define hierarchy of goals is also made; difficulties include objective definition of these goals/functions and decomposition.
Business Information Characteristics Study	On the basis of information model of organization, so called unique resources are defined, which facilitates analysis of current databases and problems encountered by management, a set of unique identifiers, characterizing management objects within an organization are created. The identifier and relating data comprise 'resources' with actual data, which allows for highlighting problems which impact on company performance.	Elimination of 'information scatter' between information system and needs, shortens the process of improving of insufficient information which can not be recognized through another analysis; it accelerates production of software fourfold on average.
Business Process Model	Aims at recognition of basic, initial units which initiate processing of input information realized in next phases, such as: preparation of general plan, verification of economic processes in companies and their units.	It is possible to create, in a written form, a model of the processes which occur in organization and the analysis of the needs and flows in organization connected with these processes and, in consequence, it allows for recognition of data transferred between economic processes in the organization.



Method	Description	Application
Enterprise Activity Matrix	Rests on a theory of organization with limited number of tasks (activities) and these tasks being performed by means of subject of labour available in a company. In consequence, a matrix including all activities within an organization can be created. It mainly requires definition of activities in organization (what is being done), environmental conditions (how it is being done) and subjects of activities (what is used to perform the activities)	It gives management a view of everything what happens or should happen through the method of task assignment and a demanded information system characteristics
Information Control Net Model	Formal model of determination of users needs in office environment; it is formed by graphical techniques and standard notation, which forms a framework for collecting data, imposes coherence, completeness, logical organization and is conducive to comparison of alternative procedures, preparation of forms and data sets.	Used for representation and analysis of flows of information in progress, procedures for activities simplifies them and automates overlaying activities.

Source: (Kisielnicki, Sroka 1999)

Financial monitoring suits very well to the methodical approaches listed in the table. It combines features of all the described methods used for determination of users' informational needs.

Financial monitoring is a system which integrates the methods of processing and flow of different streams of information with management system (Komorowski 2001) and supports management in supervising the most significant components in operation of entities (Kisielnicki, Sroka 1999).

A. Skowronek-Mielczarek and Z. Leszczyński point to important and specific features of financial monitoring, including (Skowronek-Mielczarek, Leszczyński 2007):

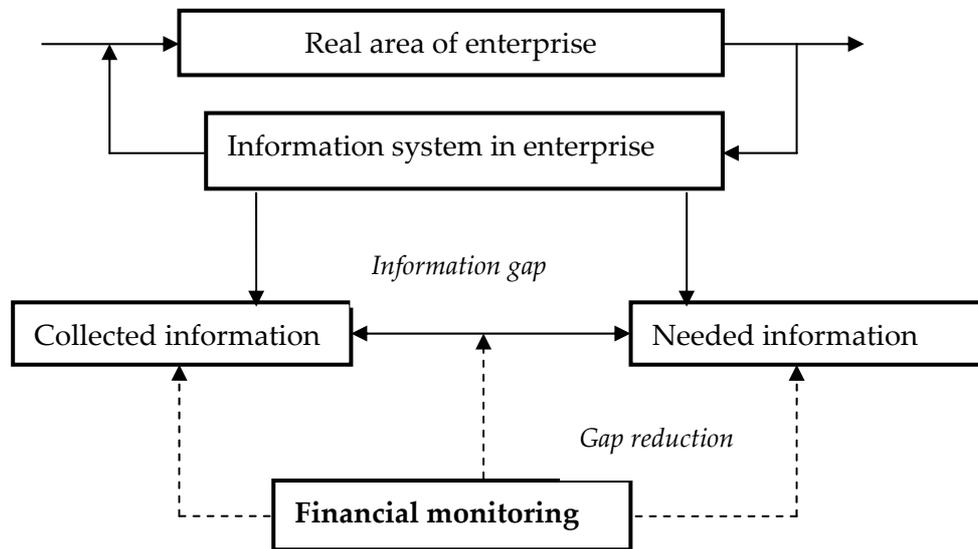
- selection of key areas of management of company's finance,
- definition of standards and reference bases, which become the basis for assessment and verification of activity,
- application of tools for modern financial analysis,
- continuous observation and registration of changes in the investigated financial processes.

In consideration of the features of monitoring it is remarkable that it comprises the basis for creation of new informational and decision-related resources for enterprises. System of



monitoring supports management of enterprises through early warning and assessment of threats during operation of businesses. It also reduces information gap (see Figure 3).

Figure 3. *Information System and Financial Monitoring*



Source: own study on the basis of (Mytlewski 2007, Rabin, Jackowski 1988)

## Summary

To sum up, it can be concluded that monitoring system, being a subsystem for information systems in enterprises, overtakes the tasks of information system and is in tune with it in terms of functions, language and tools. Moreover, monitoring system integrates management and formal requirements. In target model, it should lead to reaching a compromise between interests of all parties which communicated the demand for information in enterprises through giving them access to any profile of information.

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