INVOLVEMENT OF MANAGERIAL FUNCTIONS IN THE FUNCTIONING OF SPECIFIC INDUSTRIAL ORGANIZATIONS – "UNCONVENTIONAL TECHNOLOGIES"

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Abstract: In the sensitive field of unconventional technologies, modern technologies, with another pronounced character of novelty, the consolidation of the market segment of industrial organizations, which acquire these new technologies, the resistance to competition and the gaining of new markets, depend deeply on the manager's ability to adapt to the new realities, to operate unprecedentedly and dynamically in the new competitive framework.For this reason, in the field of Unconventional Technologies ", the new managerial approaches will have to gain substantially in realism, quality and response time.

Key words: function, managerial process, Unconventional Technologies

1. Introduction

The realization of the management process, in any field of activity, involves the performing of specific actions, grouped in certain positions defining the role of the manager. As there is currently no unanimity on the delimitation of these functions and their number, the following classification can be considered in the field of unconventional technologies, classification also found in other areas: the forecasting function, the organizational function, the coordination function, the training function and the evaluation control function.

The main characteristics of these functions are:

- it is necessary to exercise them in all industrial organizations that have in their profile the conception, implementation and development of "Unconventional Technologies";
- have also content and different forms of expression according to the level at which they are exercised;
- have different importance and weights in the overall management process.

2. Functions of management

FORECASTING

It is the most important function of a managerial process, on its content depending decisively the manner of deployment and the results of exercising the other functions located "downstream" – organization, coordination, training, control-evaluation [1,2,3].

The forecast includes decisions and actions, which establish the objectives of the company and its procedural and structural components, establish the modalities of achievement, size the resources to be employed and specify the intermediate and final deadlines for achieving the objectives.

The exercising of this function results in three important microeconomic activities:

• forecasting, as a result of which prognoses are prepared

• planning, found in the development of global and partial strategies and policies

• programming and detailing policies in time and space, through programmes
(mainly used in the sphere of production as manufacturing programmes).

In order to withstand the pressures of the environment, the firm may adopt one of the following positions:

• a passive attitude, waiting for the occurrence of significant mutations in the environment, nationally and internationally and the attempt to adapt by change to such transformations and influences

•an aggressive attitude, in the positive sense of the term, of influencing the behavior of some environmental factors in the desired direction, through carefully elaborated plans, which take into account both its needs and opportunities, as well as its constraints and vulnerabilities.

ORGANISATION

The organization, as a managerial function, consists in the delimitation of the work processes into primary components (tasks), their grouping by positions and compartments and their assignment for exercising to the company's personnel in order to achieve their objectives [1,2,3].

Its pragmatic correspondence is the organizational activity, with two important dimensions:

- overall organization, reflected by the design/ redesign and maintenance of the functioning of the management system and its subsystems (decision-making, informational, organizational, methodological)

- organization at the level of the main procedural and structural components of the company (organization of activities or departments, for example).

COORDINATION – the third function of the management – addressed as an extension of the organizational function consists in harmonizing the decisions and actions of the subordinates and of the organizational subdivisions of the company in order to ensure the achievement of the objectives. Coordination support is represente by communication, defined as the processes of transmitting information messages, on descending or ascending flows, between the manager and subordinates [1,2,3].

The hypostases of coordination – as well as communication – are:

- bilateral coordination, which takes place between a manager and a subordinate, with the advantage of conveying undistorted messages and the disadvantage of oversizing the manager's time budget

- multilateral coordination, carried out between a manager and several subordinates at the same time; the advantage of correctly transmitting information messages – as the manager proves, but also the disadvantage of allocating additional time to communicate with each subordinate creates the possibility of a different understanding of the content of the information message due to the different level of training of the subordinates.

TRAINING – as a distinct sequence of the management process – includes decisions and actions that determine the participation of employees in setting and achieving objectives by taking into account the factors that motivate them [1,2,3]..

The economic support of the training is, therefore, the motivation of the personnel, which contributes to the harmonization of the categorial system of economic interests of the participants in the development of the work processes.

Motivation involves *the correlation of material and moral-spiritual rewards/ sanctions with the actual results obtained from the achievement of objectives.* Its essence is the trinom of rewards/sanctions – results – objectives.

Depending on the prevailance of rewards or sanctions, the motivation can be found in two situations:

- positive motivation, when the priority is the material and moral spiritual rewards;
- negative reasons where, over short periods of time, penalties are to be given priority.

Any management process, associated with a managerial cycle, is completed through the *CONTROL-EVALUATION function*. Although less attention is paid to it, the importance in the economy of managerial processes must not be diminished [1,2,3].

To control means to compare the results with the objectives, to measure the differences between them, to check the extent to which the structures and methods of training people favour the achievement of the objectives. But under the conditions of our society, with reference to the transition to a market economy, control is both a pressing necessity and an integral part of an efficient, scientific leadership, which requires strict evidence and rigorous control. Regardless of the control objective, in the field of management of unconventional technologies, the control systems and techniques are the same and are based on the systems and techniques used in classical technologies, showing in cyber vision the feedback loop system.

As presented, one of the most important managerial functions is the organizing function which, at the level of an industrial organization, manifests itself by creating its functional and structural organization.

The materialization of the functional organization is achieved by creating the functions of the industrial organization, as homogeneous, complementary and convergent activities, specialization in achieving a sub-objective derived from the general objective.

In general, the grouping of activities by positions within the industrial organization is materialized in: the research-development function; the production function; the commercial function; the financial-accounting function and the personnel function.

The general activities grouped in these positions are the same both in case of specialization of industrial organizations in classical technologies and in case of specialized ones combined with unconventional technologies.

Minor differences in the involvement of these functions in the two technologies arise only as a result of market conditions and progress requirements.

The functions of the industrial organization cannot be dealt with distinctly but in close correlation with the managerial functions.

Thus, the strategic management planning process completed with the implementation of the strategy includes:

Functional strategies in the field of Unconventional Technologies – as well as in classical processes – are established for the functional areas of the organization, with specific emphasis [4,5,6]:

- The R&D function - the division of the R&D effort between equipment, installations and technologies; strategies adopted in relation to the market; available funds and their use; selection of variants; management of the process; etc.;
- Production function - resources necessary for the process; specific problems of organizing production and work; etc.;

- The commercial - marketing function;

- Staff function – training and multidisciplinary improvement of staff required by the specificity of Unconventional Technologies and the strategy adopted; salary policy and its contribution to the new strategy; etc.;

- Evaluation and control of the strategy, includes in the management plan:

- financial control (costs, sales, profit);

- non-financial control (productivity, quality, situation of relations with suppliers and customers, situation of personnel, etc.)

- evaluation of the implemented strategy (consistency of the strategy adopted with the market requirements; advantage over competition; realism of the strategic variant adopted in accordance with the resources, potential and response capacity of the organization).

An important role, in the involvement and correlation of managerial functions with the functioning of the industrial organization, has – also within the Non-Conventional Technologies – the Information System for Leadership whose action, focused on managerial sequences, is presented in Table 1.

Table 1. Actions of the Information System for Leadership in the Field of "Unconventional Technologies" ("UT.")

Functions of the organisation		Managerial sequences		
		Planning	Action	Necessary information
Research and Development in "UT.."		x		
- Establishing the R.D. themes		x	x	
Strategic planning		x		
- Investment for development				
		x	x	
Production (Classical Technologies, "U.T."		x	x	
-Appointment, scheduling		x	x	
-Supply			x	
- Inventory management			x	
- Launch, pursuit.				
-Manufacturing				
Commercial				
- Market research		x	x	
- Sales planning		x		
-Sales			x	
-Analysis of sales		x		
Financial:				
- Establishment of capital		x		
- Profit planning		x	x	
-Accounting		x		

Personnel - Recruitment, employment, placement - Salaries - Use of labor force - Training, refresher training -Social issues		x x x x	x x x x x	

3. Conclusions

Summarizing these aspects, there is a certain similarity with the analysis of the classical technological processes of design-processing, control, etc. At the same time, it highlights the need to harmonize the concepts of Classical Technologies with the specificity of this unconventional technical field both in terms of conceptual modeling of all the activities of this new field and in terms of a pragmatic approach by developing new methods, techniques and models that should take into account all the connections of the micro and macro-technical-economic aspects of the manufacturing processes specific to Unconventional Technologies.

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