

CREATIVITY MANAGEMENT IN FORECASTING AND ORGANIZING

Gina-Maria MORARU¹

¹“Lucian Blaga” University of Sibiu, gina.moraru@ulbsibiu.ro

Abstract—Nowadays organizations and their management must take into account the knowledge revolution. This paper presents the role of creativity management in two managerial functions: forecasting and organizing. Firstly, we analyzed some important theoretical aspects of the studied problem. Secondly, we presented a part of a research made in the Romanian academic and industrial environment, regarding the implication of creativity management in forecasting and organizing processes. Finally, we appreciated that creativity management must use both the knowledge of the own organization, as well as those of other organizations.

Keywords—creativity, management, forecasting, organizing.

I. INTRODUCTION

KNOWLEDGE revolution in modern society is marked by managerial, organizational and economic innovation. Organizations must permanently improve and innovate, not only their products and services, but also their actions.

External environment influences the organization and its management. Therefore, many external factors influence the forecasting made by managers. In order to exercise properly the managerial functions – forecasting, organizing, coordinating, training, and control-evaluating [1] – they must take into account not only the information, but also the knowledge from all departments.

In this context, managers must use the creativity of the employees. They can make an accurate forecast and a competitive strategic plan only in collaboration with their employees.

II. THE CREATIVE FORECASTING

In order to avoid the dissipation of knowledge or information, we recommend the establishment of computerized knowledge database, one for each department (Fig. 1). These databases are interconnected and information and knowledge can be transferred from a department to another. In Fig. 1, we considered an organization with “n” departments. We appreciate that all “n” databases are interconnected in a larger organizational database.

Firstly, this modern forecasting system captures the data and information about environmental factors and their modification. The captures of information are made by managers and specialists.

Secondly, information is used in the individual forecast, made by each manager, but also in the collective forecast, performed with each group.

Finally, the organizational prediction is nothing more than a synergic combination of the forecasts made by all departments. The forecasting knowledge can be stored in the computerized database in the form of artificial knowledge, usable by intelligent computer systems, expert systems etc. [2], [3]. Organizational forecasting is followed by creative planning, implementing of the plans, controlling and evaluating the results (Fig. 1). Feed-back is able to improve the forecasting ability of human resource generally and of managers particularly.

Creativity management in organizations producing goods and services must involve the client in the creative research and in the development processes. The creativity of the customers will enrich the organizational database. While the computerized database grows, the company will be better prepared to cope with future changes in the external environment.

Moreover, we appreciate that the organizational database will facilitate the management in the development of centers for additive manufacturing, both in universities and in industry. A center for additive manufacturing in the university can develop partnerships with various research centers, companies and other stakeholders [4]. This center can operate as node in a network of specialists, customers, distributors, services based on technical support offered by information and communication technologies [4].

Therefore, the databases from many organizations can be connected, generating benefits for all of them. One managerial method for achieving this is benchmarking. Creativity can be developed through benchmarking, not copied [5]. The organization will not discover something already discovered. Using interchangeable knowledge, the forecasts made by network members will be more accurate. The markets’ demands will be determined more exactly. Product variety and consumer loyalty will increase.

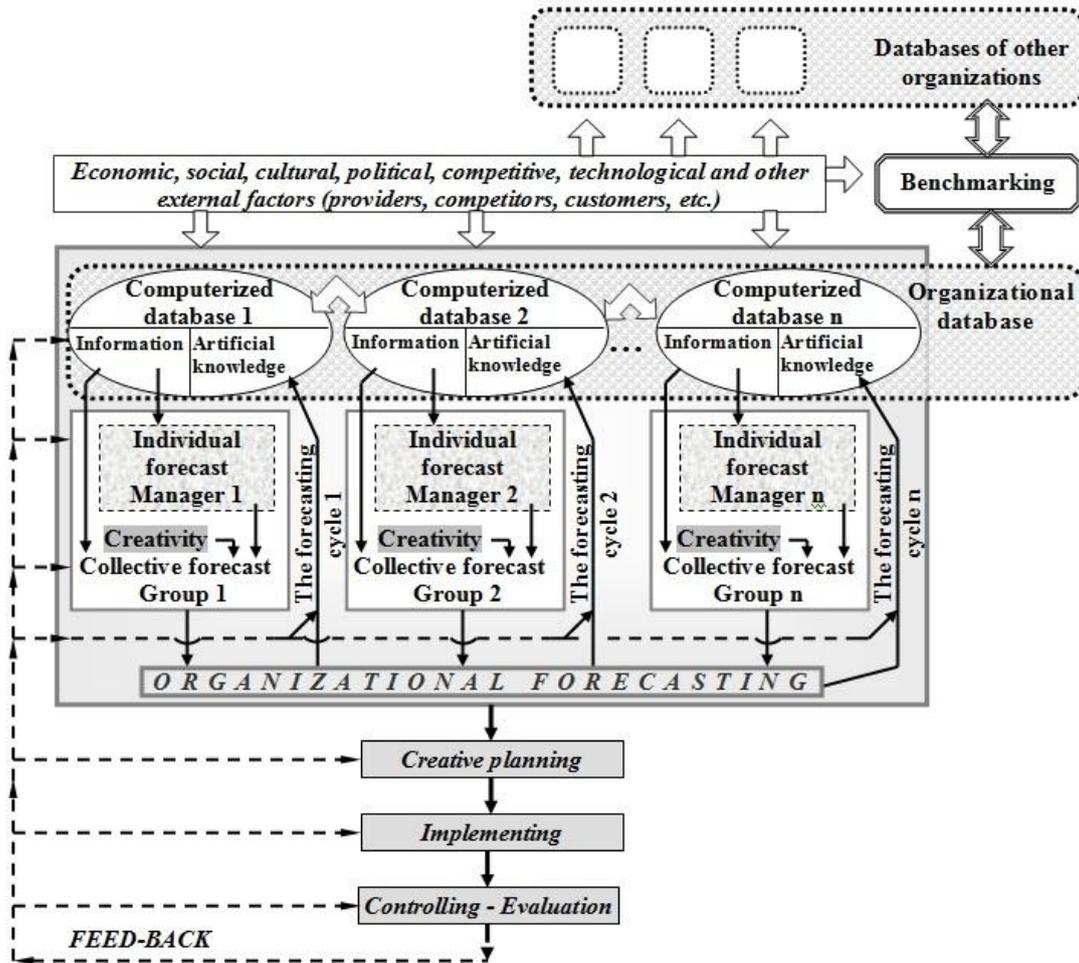


Fig. 1. The creative forecasting ([1], [2])

This way, using creativity in managerial forecasting will generate more opportunities for the company's future. In order to facilitate all the transformations of the products/services, we consider that managers must use creativity in organizing, too.

III. THE MODERN MANAGERIAL ORGANIZING

Regarding at the specialists' suggestions about the corporate strategy, we notice the "organizing for innovation", based on three types of innovation: improving existing products, launching new products and developing new technologies [6].

We propose a new concept, including the one above: organizing for creativity (Fig. 2). The organizational structure is flexible and open to the clients' desires, demands and creativity. The organization can change its structure in a short period of time, passing from the functional structure to the matrix or hybrid structure, from the network structure to a structure based on quality circles, and so on. The most important thing in organizing for creativity is to keep the organization open to the external knowledge and creativity, providing from clients, partners, suppliers, other stakeholders, and other environmental factors (Fig. 2).

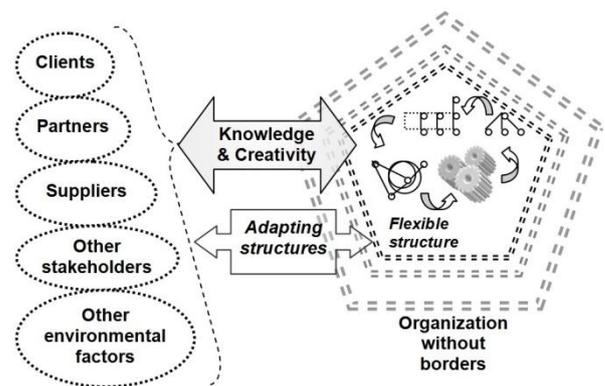


Fig. 2. Organizing for creativity – a concept for modern organizations.

We considered that an organization without borders is open to knowledge and creativity from the external environment. All employees can change creative ideas with clients and other stakeholders, in order to improve products, organizational processes/transformations and structure.

Moreover, we appreciate that creative forecasting and organizing are today the first steps in the establishment of new virtual organizations.

IV. SELECTIVE RESEARCH IN THE ROMANIAN ACADEMIC AND INDUSTRIAL ENVIRONMENT

In the Romanian academic and industrial environment we have conducted an ample research about the implications of the creativity – benchmarking couple.

This research was based on the theoretical considerations presented in II – The Creative Forecasting. In order to avoid the rediscovery of existing products, processes, methods and so on, we remind only the importance of using benchmarking in creativity management.

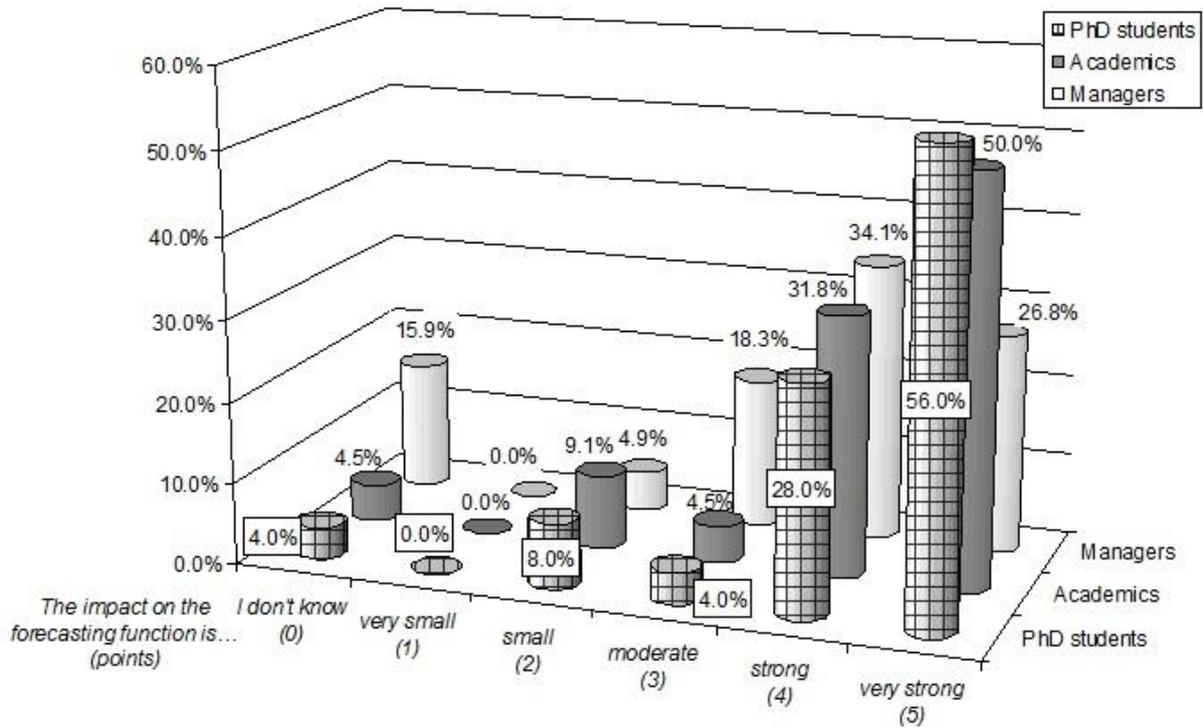


Fig. 3. The impact of the creativity – benchmarking couple on the forecasting function (respondents' opinions).

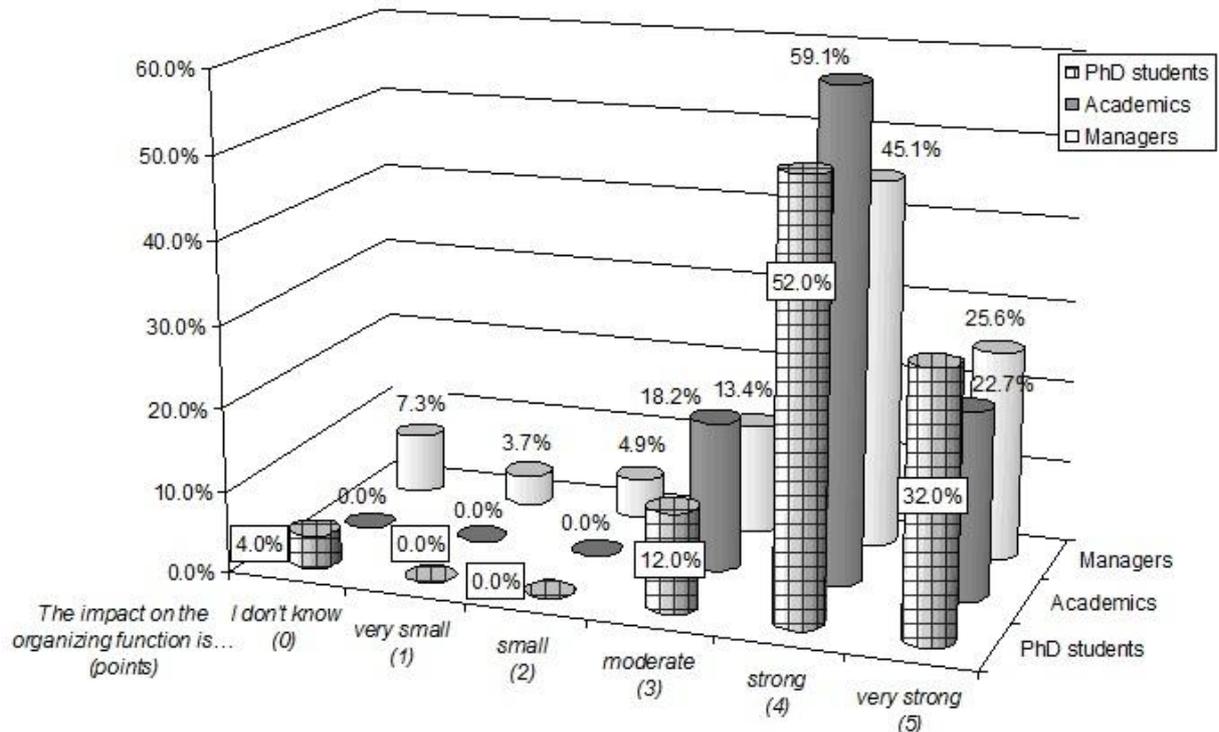


Fig. 4. The impact of the creativity – benchmarking couple on the organizing function (respondents' opinions).

We present here the part of the research regarding the impact of the creativity – benchmarking couple in the forecasting and organizing processes. We distributed questionnaires to PhD students, academics who teach managerial disciplines, and managers who work in various industrial fields. One of questions asked the respondents to evaluate the impact of the creativity – benchmarking couple on each of the managerial functions. We used the following rating scale: 0 points for “I don’t know”, 1 point for “a very small impact”, 2 points for “a small impact”, 3 points for the “moderate impact”, 4 points for “a strong impact”, and 5 points for “a very strong impact”. The answers of the respondents regarding the impact of the creativity – benchmarking couple on the forecasting function are presented in Fig. 3, and its impact on the organizing function in Fig. 4.

The most respondents from the academic environment appreciated the impact of creativity and benchmarking on the forecasting function as very strong: 56.0% of PhD students and 50.0% of academics (Fig. 3). The most respondents from Romanian industrial environment appreciated this impact as strong: 34.1% of managers.

The statistics of the responses related to the prediction are centralized in Table I. The answers of the sample of managers were not homogeneous: the coefficient of homogeneity has a value above 0.4.

TABLE I
STATISTICS RELATED TO THE FORECASTING FUNCTION

Respondents	Average	Variance	Standard Deviation	Coefficient of Homogeneity
PhD students	4.200	1.551	1.245	0.297
Academics	4.091	1.666	1.291	0.316
Managers	3.354	2.799	1.673	0.499

The most respondents appreciated the impact of creativity and benchmarking on the organizing function as very strong: 52.0% of PhD students, 59.1% of academics, and 45.1% of managers (Fig. 4). The statistics of these responses are centralized in Table II.

TABLE II
STATISTICS RELATED TO THE ORGANIZING FUNCTION

Respondents	Average	Variance	Standard Deviation	Coefficient of Homogeneity
PhD students	4.040	1.100	1.049	0.260
Academics	4.045	0.416	0.645	0.160
Managers	3.622	1.966	1.402	0.387

The responses regarding the impact of creativity – benchmarking couple on the organizing function are more homogenous than those relating to the forecasting function. Anyway, regarding the averages (Table I, Table II) we conclude that the respondents agree with our theory: these two managerial functions are strongly influenced by the creativity – benchmarking couple.

Therefore, developing rapidly creativity in organization will increase the efficiency of managerial

forecasting and organizing.

V. CONCLUSION

Regarding the use of the human potential in modern organizations, including the creativity potential, we appreciate that a correct prediction and a flexible structure are the first steps to be performed by management. On the other hand, managers must not forget the importance of the methods used to amplify human creativity. Benchmarking is one of these methods, which shorts the way to new products and processes, taking creativity outside the organization and multiplying it by own creativity.

The use of benchmarking in creativity management is possible by connecting the knowledge databases from many organizations through Internet. In this case, managers can combine the methods for stimulating human resources creativity with benchmarking, obtaining “a brainstorming operating on a global scale” [7] (see p. 678). In fact, not the managerial methods are important, but their outcome: the use of this inexhaustible resource, the human creativity.

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