

PREDICTION OF THE DEVELOPMENT OF THE CORPORATE ENVIRONMENT IN THE CZECH REPUBLIC FROM THE PERSPECTIVE OF TOP MANAGERS

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Abstract: *The paper presents results of the prediction of top managers in the context of the internal environment, the mezzo-environment and the general macro-environment. The test set included about 460 Czech companies in the field of industrial production and service sector. From the results for all subcomponents of the corporate environment, it is possible to declare a relatively high degree of significance, especially in the mezzo-environment, a smaller degree for internal corporate sources and macro-environment factors. It can be said that this finding corresponds to theoretical assumptions, since the mezzo-environment factors appear to be dominant and decisive for the prosperity of enterprises in today's hyper-competitive global environment.*

Key words: *Prediction, corporate environment, internal environment, mezzo-environment, macro environment.*

1. INTRODUCTION

The scientific community has reached a general consensus about the importance of corporate environment for development and stability of businesses and about the necessity to analyze it in the process of strategic management and decision-making. However, there have been substantial differences in the opinions of how corporate environment and its components should be analyzed and how outputs of the analysis should be used in corporate practice. One group of authors, which dominates in terms of their number, uses strategic analysis as a part of a situation analysis of the corporate environment. Mathematical and statistical methods were introduced into analyses of corporate environment at the beginning of the twentieth century, mostly abroad, particularly as a result of accelerating changes in the corporate environment. The present paper belongs to the latter group and the author has used dimensionality reduction for the analysis. According to our search, the method has never been used in the Czech Republic on such a large scale and for such a high number of enterprises.

2. LITERATURE REVIEW

Changes that have occurred in the corporate environment since the beginning of this century are ever more intense, fundamental and revolutionary. The changes are happening worldwide, as well as in the Czech Republic. In this connection scientific literature speaks about corporate environment that is highly fluctuating and instable, often described as discontinuous, turbulent or even chaotic [5], [14], [18], [24], [27]. For each business entity it is possible to define its three fundamental aspects, specifically the micro-environment, mezzo-environment and macro-environment. Authors have used different approaches to categorization of corporate

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environment. Csikosova and Čulková [3], equally as most of the other authors, both foreign [7] – [10], [19] and Czech [4], [11], [13], [16], [26] differentiate between the internal and external business environments. They further classify the external environment as the specific or sector environment and the general macro-environment. Šulák and Vacík [23] are among the few authors who mention the so-called mezzo-environment, i.e. the nearest corporate environment. The internal environment has a direct impact on business activities; it is made up of the internal corporate resources (physical, human, financial and intangible), i.e. resources that can be controlled by the business entity [17]. The mezzo-environment includes customers, suppliers, competitors, distributors etc., i.e. the nearest business environment [22]. The general macro-environment consists of external factors in the fields of economy, technology, law, society and culture, environment, ethics, international situation etc. The external environment has an indirect impact on business activities.

In order to analyze individual components of the corporate environment, particularly the mezzo-environment, it is necessary to know various tools and techniques of strategic analysis. The knowledge is essential not only for analytical purposes but also for development of strategies to win and to maintain a competitive advantage [2]. Also the character of managerial work has been changing with the ongoing changes of the corporate environment. According to Keřkovský and Vykypěl [12], one of the preconditions of successful strategic

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decisions by managers is a strategic situation analysis or evaluation of factors of the corporate environment, i.e. requirements and changes in the behavior of customers, competitors, suppliers, as well as development of macro-economic factors, including characterization of internal corporate resources. A similar opinion about definition of the situation analysis, with only minor differences in description and content of micro-environment, mezzo-environment and micro-environment, is shared by other authors, e.g. Jakubíková [11]; Dedouchová [4]; Mallya [16]; Šulák and Vacík [23]; Frynas and Mellahia [7]; Kislingerová and Nový [13]; Veber [25]; Gomes [10]; Nigel and Campbell [19]; Ginter, Duncan and Swayne [9]. According to Jakubíková [11], strategic situation analysis is a comprehensive approach allowing to identify significant factors affecting activities of a company in mutual relations, the results of which serve as inputs for development of proposals and potential strategies for the future, reflecting whether the environment is stable or dynamic, simple or complex, and it is a precondition of quality of the entire strategic process.

A slightly different view of the issue is represented by an opinion line that respects scientific works of Porter [19], [20]. The different approach uses the assumption that the strategy of an enterprise is not dependent on the ability to predict changes; it is important to have a general idea about which groups of customers and which needs will dominate in the next three to five years. Similar views are shared by Abraham [1] and Duggan [6] who have specified differences between the analytical approach and development of a strategy respecting the actually occurring changes. This assumption has given an impulse to the authors to look for other methods to analyze the corporate environment and its individual components and one of the possible approaches is presented in the submitted paper.

3. MATERIAL AND METHODS

We have conducted an extensive questionnaire survey focused on strategic management issues and decision-making. Testing also included opinions of managers in the group of 456 enterprises from all over the Czech Republic. The enterprises were classified based on the size - we have approached 109 micro enterprises, 140 small enterprises (up to 50 employees), 124 medium enterprises (up to 250 employees) and 83 big enterprises (over 250 employees) – and based on the sectors – 187 manufacturing and industrial enterprises and 255 enterprises from the services sector. A prevailing representation of small and medium enterprises in the tested group reflects the structure of economic entities in the Czech Republic with its high share of small and medium enterprises; small and medium business account for 99,83 % of all active business entities in the country.

A general linear model was used to process the results. A total deviation was determined for each manager from the optimum model of internal corporate resources, mezzo-environment and macro-environment using a quadratic loss function. This has made it possible to arrange the managers based on their ability to influence results of the enterprise in terms of improvement of its profitability. 60 best top managers have been selected – 30 from the services sector and 30 from the sector of manufacturing enterprises. Those managers are seen as credible when it comes to prediction of future development of the corporate environment and the subgroup has been used to analyze the predictions, along with variables describing assessment of a future state of the corporate environment. Average values of the individual variables in the subgroup have been calculated and used for prediction of the optimum condition of the corporate environment in the future.

4. RESULTS AND DISCUSSION

Prediction of internal corporate resources from the viewpoint of sector differentiation (manufacturing and industry sector and services sector) of the tested enterprises

| Internal resources | Average variables for the manufacturing and industry sector | Average variables for the services sector |
|---------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------|
| Management level | 2.566667 | 2.633333 |
| Employees level | 2.433333 | 2.533333 |
| Organizational structure of the enterprise | 2.466667 | 2.1 |
| Strategy of the enterprise | 2.5 | 2.4 |
| Technical equipment | 2.433333 | 2.4 |
| Manufacturing technology, procedures | 2.3 | 2.2 |
| Portfolio of products /services | 2.466667 | 2.433333 |
| Financial resources of the enterprise | 2.5 | 2.533333 |
| Wage level | 2.366667 | 2.233333 |
| Marketing level | 2.5 | 2.5 |
| Brand and name of the enterprise | 2.566667 | 2.433333 |

| | | |
|------------------------------------------------|----------|----------|
| Level of research and development | 1.833333 | 2 |
| Social environment of the enterprise | 2.266667 | 2.133333 |
| Training of workers | 2.333333 | 2.266667 |
| Information and communication systems | 1.966667 | 2.166667 |
| Internal company regulations, standards | 2.1 | 2.1 |
| Corporate culture | 2.333333 | 2.133333 |
| Occupational safety | 2.433333 | 2.133333 |

Table 1: Prediction of the optimum condition of internal corporate resources as seen by managers, classified from the viewpoint of sector differentiation of the tested enterprises

The prediction of the optimum condition of internal resources has been made by the selected group of managers of the tested enterprises. Table 1 implies that managers from the selected group mostly believe that internal resources have a medium degree of importance for prediction of the future and their rating is nearly identical in both the monitored sectors.

A comparison of all components of corporate environment has shown that the highest importance was assigned to mezzo-environment, while micro-environment and macro-environment were found less important. Perhaps we can conclude that in the period of economic growth this finding corresponds to theoretical assumptions, as the Porter's model of five forces, or its parameters, is dominating in that period and is decisive for competitiveness and profitability of the enterprises.

Manufacturing and industry sector

In the sector of manufacturing and industry components of the internal environment important for the future are particularly the management level, brand and name of the enterprise, corporate strategy, marketing level and financial resources. In comparison with the present structure of the internal environment (see results of the dimensionality reduction and optimum model) it prefers some new components of the internal environment that have been pushed back in the current evaluation, e.g. employees level, organizational structure, portfolio, technical equipment, occupational safety.

Services sector

From the viewpoint of prediction of future condition the sector of services has demonstrated the following results. Components of the internal environment important for the future include the management level, financial resources, employees level and marketing level. Also in this sector, when we compare the current structure of the internal environment with its future development, we can see some new components of the internal environment (management level, brand and name of the enterprise, marketing level).

Prediction of mezzo-environment from the viewpoint of sector differentiation (manufacturing and industry sector and services sector) of the enterprises

| Mezzo-environmental factors | Average variables for the manufacturing and industry sector | Average variables for the services sector |
|-------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------|
| Competitors | 2.633333 | 2.566667 |
| Suppliers | 2.733333 | 2.866667 |
| Customers | 2.7 | 2.966667 |
| Distributors | 2.633333 | 2.866667 |
| Business partners | 2.7 | 2.966667 |
| Financial institutions | 2.5 | 2.866667 |
| Universities | 2.5 | 2.666667 |
| Research institutes, Academy of Science | 2.5 | 2.633333 |
| Local administration and self-government | 2.3 | 2.6 |
| Political parties | 2.1 | 2.4 |
| Government | 2.2 | 2.4 |
| Media | 2.233333 | 2.666667 |
| Ecological associations | 2.133333 | 2.433333 |

Table 2: Prediction of the optimum condition of mezzo-environment as seen by managers from the viewpoint of sector differentiation of the tested enterprises

Manufacturing and industry sector

When it comes to prediction of mezzo-environmental factors, managers in the manufacturing and industry sector believe that the following factors are particularly important: competitors, customers, suppliers, distributors and business partners, i.e. especially the competitive forces of the Porter's model that determine the structure of individual industries. In the future, a stronger effect on profitability is expected from financial resources, universities and research institutes and Academy of Science which suggests a growing need the managers feel to increase transfer of knowledge and skills from research organizations to the corporate sphere.

Services sector

The services sector has demonstrated a similar trend as the manufacturing and industry sector, only the intensity was been higher.

Prediction of macro-environment from the viewpoint of sector differentiation (manufacturing and industry sector and services sector) of the tested enterprises

| Macro-environmental factors | Average variables for the manufacturing and industry sector | Average variables for the services sector |
|------------------------------------|--------------------------------------------------------------------|--------------------------------------------------|
| Demographic development | 2.566667 | 2.666667 |
| Distribution of income | 2.666667 | 2.766667 |
| Lifestyle | 2.666667 | 2.6 |
| Level of education | 2.533333 | 2.7 |
| Mobility of the population | 2.666667 | 2.566667 |
| Approach to free time | 2.666667 | 2.533333 |

| | | |
|----------------------------------------------------------|----------|----------|
| Governmental expenses on research and development | 2.633333 | 2.666667 |
| New patents | 2.733333 | 2.666667 |
| Transfer of technology | 2.733333 | 2.766667 |
| Rate of obsolescence of means of production | 2.433333 | 2.666667 |
| GDP development | 2.633333 | 2.633333 |
| Interest rates | 2.733333 | 2.666667 |
| Inflation | 2.633333 | 2.466667 |
| Lifecycle of the enterprise | 2.666667 | 2.9 |
| Unemployment | 2.466667 | 2.5 |
| Government stability | 2.566667 | 2.6 |
| Foreign trade regulation | 2.5 | 2.633333 |
| Tax policy | 2.5 | 2.433333 |
| Legislation | 2.466667 | 2.4 |

Table 3: Prediction of the optimum condition of macro-environment as seen by managers from the viewpoint of sector differentiation of the tested enterprises

Manufacturing and industry sector

The prediction of important future macro-environmental factors in the manufacturing and industry sector includes increasing effects of technological factors in particular (transfer of technology, new patents) but also macroeconomic indicators (interest rates, inflation, GDP development).

Services sector

On the contrary, in the services sector the selected managers expect a very significant effect of particularly social demographic factors (distribution of income, level of education, demographic development, lifestyle), as well as transfer of technology and, primarily, lifecycle of the enterprise. A detailed analysis of macro-environmental factors has shown that managers are worried about a change of the economic cycle and arrival of economic recession which has been reflected by the emphasis on macroeconomic indicators and factors operating against crisis and supporting growth, i.e. transfer of technology, patents, lifecycle of the enterprise, rate of obsolescence of means of production etc. With some minor exceptions, these factors were not preferred in the period of the current economic growth, rather to the contrary.

5. CONCLUSIONS

The importance of corporate environment for development and stability of enterprises has been generally recognized both by the scientific community and by managers of enterprises. Different levels of importance have been found for individual components of the corporate environment, particularly when it comes to prediction of future development. Results of the present research represent the first approximation of answers to questions formulated hereunder.

The following conclusions may be drawn from the obtained results:

- All components of the corporate environment have been ranked as medium important, while the most important factors were those of mezzo-environment which also corresponds to theoretical assumption and real needs of the enterprises.
- A certain negative finding is the underestimation of internal corporate resources, i.e. the pillar of the corporate potential which, at the time of economic recession, will be the decisive eliminator of negative effects of external factors, particularly macroeconomic indicators.
- Also behind the expected result was the importance of macro-environment, i.e. the external environment of enterprises that is ever more intensely influenced by ongoing internationalization, with concurrent geographic differentiation and formation of new centers of the world trade. One can expect that with a change of the economic cycle the importance of external environment will increase and it will be more recognized by managers.
- Components of the internal environment identified as the most important for future development included management level, brand and name of the enterprise, corporate strategy, marketing level and financial resources. In the services sector the most important components included management level, financial resources, employees level and marketing level. Results found in both the sectors were different from those found for the current situation.
- Components of the mezzo-environment have been found the most important of all; in the manufacturing and industry sector the growing importance of competitors, customers, suppliers, distributors and business partners has been predicted. These are therefore the most important competitive forces of the corporate environment. A similar trend has been found in the services sector.
- A positive finding for the mezzo-environment is the expected recognition of importance of financial resources, universities and research institutes and Academy of Science, suggesting the growing need felt by the managers to increase transfer of knowledge and skills from research organizations to the corporate sphere and, at the same time, the awareness of a potential change of the economic cycle.
- In the future the most significant changes will occur in the external corporate environment (macro-environment), however, this phenomenon has not been fully analyzed in the performed research. In the manufacturing and industry sector we can expect higher effects of technology factors in particular (transfer of technology, new patents) but also of macroeconomic indicators (interest rates, inflation, GDP development). In the services sector managers expect growing effects of social demographic factors (distribution of income, level of education, demographic development, lifestyle), technology factors and lifecycle of the enterprise.

For the sake of objectivity it should be noted that the entire research was conducted in a period of strong economic growth, so after the cycle changes one can also expect changes in opinions of the managers. The presented results have particularly a signaling and information value.

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