ION VERBONCU CIPRIAN NICOLESCU MARIUS PROFIROIU FLORIN ANGHEL

2011 ROMANIAN MANAGEMENT ASSESMENT

Diagnosis and solutions based on 2135 interviews

ACADEMIC MANAGEMENT SOCIETY OF ROMANIA NATIONAL COUNCIL OF SMALL AND MEDIUM SIZED PRIVATE ENTERPRISES IN ROMANIA



MAIN AUTHORS

PROF. PH.D. OVIDIU NICOLESCU ION VERBONCU MARIUS PROFIROIU

CO – AUTHORS

LECTURER PH.D. CIPRIAN NICOLESCU ASSISTANT PH.D. FLORIN ANGHEL

SCIENTIFIC REVISION

BSC ALAN CLARK – MANAGEMENT EXPERT

LIST OF CONTRIBUTORS

A. PROFESSORS

- 1. Prof. PhD Gheorghe lonescu
- 2. Prof. PhD Constantin Oprean
- 3. Prof. PhD Costache Rusu
- 4. Prof. PhD Liviu Ilieş
- 5. Prof. PhD Dan Cândea
- 6. Prof. PhD Rodica Cândea
- 7. Prof. PhD Ion Popa
- 8. Prof. PhD Ion Petrescu
- 9. Prof. PhD Nicolae Bibu
- 10. Prof. PhD George Pleşoianu
- 11. Prof. PhD Ioan Abrudan
- 12. Prof. PhD Mihai Ţîţu
- 13. Prof. PhD Constantin Brătianu
- 14. Prof. PhD Cosmin Dobrin
- 15. Prof. PhD Marian Năstase
- B. NATIONAL COUNCIL OF SMALL AND MEDIUM SIZED PRIVATE ENTERPRISES IN ROMANIA AND ITS STRUCTURES
 - 1. SME Employers Association Nord-Eastern region
 - 2. SME Employers Federation South-Eastern region
 - 3. SME Employers Federation Muntenia region
 - 4. SME Employers Federation Oltenia region
 - 5. SME Employers Federation West region
 - 6. SME Employers Federation North-Western region
 - 7. SME Employers Federation Centre region
 - 8. SME Employers Federation Bucharest-Ilfov region

C. UNIVERSITIES

- 1. The Bucharest University of Economic Studies
- 2. "Spiru Haret" University Faculty of Management, Braşov
- 3. "Lucian Blaga" University of Sibiu
- 4. West University of Timişoara
- 5. "Valahia" University of Târgoviște
- 6. "Alexandru Ioan Cuza" University of Iaşi
- 7. University of Piteşti
- 8. University of Craiova
- 9. Technical University of Cluj Napoca
- 10. Technical University of Iaşi
- 11. "Babeş Bolyai" University of Cluj Napoca
- 12. "George Bacovia" University of Bacău
- 13. "Petre Andrei" University of Iaşi
- 14. "Spiru Haret" University of Câmpulung
- 15. University of Petroşani
- 16. "Nicolae Titulescu" University of Bucharest
- 17. University "Politehnica" of Bucharest
- 18. Petroleum Gas University of Ploiești
- 19. "Mircea cel Bătrân" Naval Academy of Constanța
- 20. North University of Baia Mare
- 21. "Dunărea de Jos" University of Galați

Copyright © 2013, Editura Pro Universitaria

Toate drepturile asupra prezentei ediții aparțin Editurii Pro Universitaria Nicio parte din acest volum nu poate fi copiată fără acordul scris al Editurii Pro Universitaria

Descrierea CIP a Bibliotecii Naționale a României 2011 Romanian management assesment. Diagnosis and solutions based on 2135 interviews / Ovidiu Nicolescu, Ion Verboncu, Marius Profiroiu, ... - București : Pro Universitaria, 2013 Bibliogr. ISBN 978-606-647-655-3 I. Nicolescu, Ovidiu II. Verboncu, Ion III. Profiroiu, Marius 65

Foreword

"The assessment of Romanian Management in 2011" represents the third volume of this type realized in last three years and it is dedicated to the state and the performance of Romanian management. It is very important to mention that this volume is among a small number of books of its kind published worldwide. Without any doubt, its importance and usefulness exceeds those of many important management books. The arguments on which it is based this statement arise from situational context in which it was developed, the objectives, content and target groups of the work.

The most important element for Romania in 2011 was to stop the strong economic crisis in 2009 and 2010. The crisis has been mainly of economical nature, being determined by the deep misscorrelations among the branches and the sectors of the economy, between nominal economy and real economy, between supply and demand, between the flows of goods and services, human flows, knowledge flows and monetary-financial and capital flows. The economic crisis, with profound global politically, socially, scientifically, educationally, ecologically, etc. reverberations revealed the weaknesses of the management in almost all the countries of the world, beginning with the world leader U.S.A. and reaching up to small states in Africa, Asia or Latin America.

Undoubtedly, any deep economic crisis or other type of crisis is preceded and accompanied by a **management crisis**. Every crisis reflects the inability of managers and managerial systems - in that area - to anticipate certain major difficulties, to quickly identify the major causes of the crisis, to design and implement strategies, policies, decisions, actions and organizational and individual behaviours, that could prevent or reduce substantially the negative effects of the crisis. This book analyzes these elements, examining carefully and in depth the status and performance of management in Romania in 2011, in a constructive perspective.

The book objectives can be summarized as follows:

- The assessment of the level of development of management theory and practice in Romania in 2011by itselfs and comparing this level to other countries;
- The identification of the main strengths and weaknesses of the practical management in Romania;
- The drawing of conclusions, priorities and ways for the development of the domestic economy in the coming years, having as a purpose the re-launching of the economy development.

The contents of volume can be synthesized in the following ways:

- The presentation of the content and specificity of the international comparative managerial approaches and of the dynamic managerial approaches (Chapter 1)
- The management analysis at national level during the period 2009 2011, with emphasis on the main strengths and weaknesses (Chapter 2)
- The analysis of the management at the level of public administration and economic agents, following the same methodology used for national management (Chapters 3 and 4)
- Diagnostic analysis of the management at the level of knowledge and managerial services provider universities and training
 organizations for the 2009 2011 period(Chapter 5).
- The formulation of conclusions regarding the management in Romania in 2011 and the establishment of priorities and ways to improve it for the following years (Chapter 6)

Conceptually, this work differs from those made in 2009 and 2010 through the following innovations:

- a) Relying on new information, for most part from 2011, collected from over 2.100 managers, entrepreneurs and specialists;
- b) Carrying out the work in a dynamic approach, taking into account the global and particular managerial developments in the 2009 2011 period;
- c) Making international comparative dimensions to analyses and managerial conclusions;
- d) Connecting the managerial approach to the development's priorities and directions of the European Union 2020 Strategy, Small Business Act and other EU strategic documents.

Information sources on which rely on the scientific research in this volume are particularly rich and varied. Because of their wealth, we mention only the following:

- 412 questionnaires filled in September and October 2011 by 97 teachers, researchers and consultants in management (type 1) and 315, respectively, managers and specialists (type 2), whose content is presented in the first appendix. This sample is nationally representative. The error margin is ± 2.1%;
- 1.723 questionnaires¹ filled out by managers and entrepreneurs from SMEs in Romania, in March and April 2011, based on direct interviews with subjects. The sample is nationally representative for Romanian entrepreneurs. The error margin is ±2.5 %;
- The strategic documents of the European Union that influence to large extend Romanian management evolution the Strategy of the European Union 2020, studies and analyzes realized at European Union level by the Council of the European Union, Eurostat, UEAPME, Business Europe, CESE, the Strategy of Lisbon, Small Business Act
- The scientific research, analysis and case studies a.s.o., realized by a part of those 124 professor in management, which are

¹ O. Nicolescu, I. Haiduc, D. Nancu, A. Isaic-Maniu, I. Isaic-Maniu, C. Nicolescu, F. Anghel, Cartea Albă a IMM-urilor 2010, Editura Olimp, București, 2010.

part of Academic Management Society of Romania (SAMRO);

- The analyses, the national and international projects and the case studies realized by CNIPMMR (National Council of Small and Medium-sized Private Enterprises in Romania – entrepreneurs);
- The results from some other research published abroad and in Romania in the last few years.

We appreciate that the results of the research published in this volume are useful for the following target groups:

- a) The ministries which run branches and areas of the economy and of society in Romania, in establishing objectives and procedures for action in the management and functional elements, in order to provide themselves with competitive management systems, which accelerate the reduction of "gaps" which separate them from the EU average level;
- b) The companies in Romania, which want to further develop their management, especially for establishing priorities, strategies and managerial policies, in order to gain more functionality and competitiveness;
- c) The bodies incorporated in the central and local administration, in the adopting and implementing the decisions according to the standards and requirements of the public administrations in the European Union, contributes substantially to the achievement of a business environment predictable, favourable to economic and social accelerated development;
- d) The universities, institutions and research centres, in planning and modernization of curricula, analytical programs, research topics, training sessions and seminars, scientific research, in order to consider to a larger extend of the progress and needs of management, boosting efficiency of the educational services and scientific research supplied;
- e) The training and consulting firms, in general, and in management in particular, in redesigning and upgrading the preparation of their products and consultancy provided to the entreprises, state agencies and institutions;
- f) The managers and specialists in management of all the areas and branches that want to amplify their competencies and productivity;
- g) The students who are specializing in management and are planning to become managers or entrepreneurs, after the completion of their studies.

Although the work has authors who have actually elaborated it already mentioned, this volume is not only the results of their efforts. The assessment of management in Romania elaborated this in 2011 - in the same way as its homologues in 2009 and 2010 - is a work of institutional type. Without the contributions from the members of the Academic Management Society of Romania (SAMRO) and the National Council of Small and Medium-Sized Private Enterprises in Romania (NCSMSPER) and its structures, the research and the book work would not have been carried out. The huge empirical information fund, related to 2011, on which the research is based on, has been obtained by the contributions of the members SAMRO (see the contributors list), of the CNIPMMR structures and also of the other teachers, consultants and trainers of university centres.

I cannot conclude these considerations without thanking to my colleagues, that are also main authors of this volume - Prof. Ph.D. Ion Verboncu and Prof. Ph.D. Marius Profiroiu, who, with a extraordinary competence and in a short period, have developed substantial part of this volume. I am also thanking also Lect. Ph.D. Florin Anghel and to Lect. Ph.D. Ciprian Nicolescu, who, by processing the gained information have substantially helped to ensure the necessary volume of information.

Naturally, the study, achieved in a short period and with participation of a large number of people, is perfectible on multiple levels. We look forward with interest to your evaluations, suggestions and any comments, which will be useful in completion of next year's project The assessment of management in Romania, in 2013.

Ovidiu Nicolescu - Professor Ph.D.

President of the Academic Management Society of Romania (SAMRO)

President of the National Council of Small and Medium-sized Private Enterprises in Romania (CNIPMMR)

CHAPTER 1 DYNAMIC AND INTERNATIONAL COMPARATIVE MANAGERIAL APPROACHES

The study devoted to the assessment of management in Romania in 2011 has two new major dimensions:

- A dynamic dimension, because it addresses the management condition of Romania during the last three years 2009, 2010 and 2011. It is a national first regarding its size, because for the first time in Romania, an analysis of this type is carried for a period of three years. This premiere was possible due to the research realized in each of the three years, regarding two comprehensive annual surveys, which ensured the informational foundation of this volume;
- A comparative dimension at international level, because the study addresses the status and the performances of management not only from an national point of view, but in context and in comparison with the level of management in the European Union and in other areas and countries of the world. The international comparative dimension has been realized and has been included in the 2009 and 2010 volumes, but the present edition (2011) is considerably more developed.

The items mentioned in the preceding paragraphs determined us to start this volume with a brief theoretic approach study of these two management dimensions.

1.1. Dynamic managerial approaches

1.1.1. The need and the specificity of dynamic managerial approaches in present period

Analysis according to the time factor, i.e. dynamic analysis, has always been required in any field of science or practice, including components of socio-economic activities. Well designed and performed dynamic approaches add information and knowledge, and contribute directly and indirectly to achieving superior performances. This statement is also valid for management science and practice.

Although dynamic approaches have been widely used of late in almost all fields, a theory and/or a general methodology of dynamic approaches does not exist. In well-known international publications such as *The Oxford English Dictionary*, *Global Strategic Management*, *Managing Services*, *The Oxford Handbook of Entrepreneurship*, *Economics*, *Foundations of Economics*, *ABCs of RBCs: An Introduction to Dynamic Macroeconomic Models*, and the *Dictionary of American Regional English*, the explanations for dynamic, dynamism, dynamic approach, dynamic theory or methodology are very concise, often only briefly mentioning the significance of these elements in some fields or subfields of the engineering.

Thus, in this paper we aim to outline the core elements associated with the dynamic approach of management. In this way, it will be possible to create higher methodological and operational premises so as to conceive of and develop effective dynamic approaches towards management, in its multiple forms. Recently, dynamic approaches towards management have become more necessary than ever before. The main arguments that support this statement are:

a) The rhythm of development – including technical, scientific, economic, social, etc. – has greatly increased, causing rapid changes that are often profound (Schreyoogg and Kliesch-Eberl, 2007; Cummings and Worley, 2008; Roberts, 2010; DeRue and Workman, 2011; Hodgson, 2011, Zigurds *et al.*, 2011). It is therefore necessary to conduct an investigation of such phenomena and processes not in a static sense, but in terms of their dynamics, in order to capture and exploit elements of both continuity and discontinuity. Analysis should be multidimensional, so as not to miss any component or any significant area of reality, management having a central position within them. Since the major objective of management is to obtain high levels of performance, managerial processes, relationships, mechanisms and performances must be approached in such a way as to give priority to their dynamics, and in correlation with the technical, economic, human, etc., elements within each system –at the mondo, macro, meso, and micro levels.

b) There is an understanding, which emerged roughly three to four decades ago, that management quality and performances depend on managers' and management teams' capacities to analyse and use the dynamics of management evolutions and of the systems withinwhich the management is exercised. As a result, analyses of management processes, relationships and mechanisms are more frequently and more deeplyfocused on their dynamics. Therefore, it is much easier and faster to track key mutations, to put into practise necessary corrections/improvements and to anticipate/prepare new systems and mechanisms capable of providing support to obtain high performance. An eloquent expression of these needs and evolutions is the strong development in recent decades of innovation, change and strategic management.

c) There has been a marked accumulation of a large amount of information and knowledge regarding the characteristics and functioning of all economic and social systems, including management systems. The main contribution in this aspect has been made by the fast development of informatics. Bases and banks of information and knowledge within enterprises, municipalities, sectors, specialty areas, countries, groups of countries, the world, etc. represent real "treasures" from a managerial point of view – and a more general perspective. These achievementsmake it both necessary and possible to create acomprehensive and detailed dynamic managerial analysis.

d) There has been a transition to a new, knowledge-based economy, whose main ingredients are building knowledge-based organizations and management structures. This necessitates the amplification of analyses focusing on the dynamics of all phenomena and processes. Dynamic analysis performed from the perspective of a knowledge-based economy must reflect:

- New elements in management and other areas, and the characteristics of the new economy, since its early stages, in order to
 assure their development more effective and rapidly
- Elements of the current socio-economic system that block the development of the knowledge economy, in order to understand how to eliminate them and to accelerate progress toward the new economy.

Management at all levels plays an essential role in the transition towards a knowledge-based organization/economy, and involves dynamic approaches that are oriented towards the future, in order to better use (valorise) new business and social opportunities, especially those connected with strategic knowledge.

The use of the dynamic approach in the management field must consider several specific features:

- The nature of management, mainly in a qualitative sense that is determined by its main content, managerial processes and relationships, as performed through people and on people. Management is largely dependent on the human factor, and often in ways that are not quantifiable; this is reflected in the necessity of specific approaches, out of which the most important are the qualitative elements.
- There are strong interdependencies within all systems (country, branch, locality, company, etc.) between managerial elements and technical, financial, commercial, social, scientific and cultural components. As a result, management is very complex, and its actions and effects interfere with those of other aspects.
- Management performances are most frequentlymeasured indirectly, by reference to performances within the system managed. Under these circumstances, many other factors are involved that are not controllable or are only partially controlled by management.

Dynamic management approaches must consider all these aspects, taking into consideration that the main purpose of management in any system is to increase its functionality and performances.

1.1.2. Dynamic management approaches typology

From the examination of numerous studies over several decades, we have shaped ourtypology (see Table 1) of the dynamic approaches based on four criteria.

No.	Criteria	Types of approach
1	Nature of the issue analysed	 dynamic approach specialized on management multidimensional dynamic approach
2	Coverage degree of the managerial elements within organization	 global dynamic approach partial dynamic approach
3	Temporal perspective	 historical approach prospective approach mixed approach
4	Characteristics of managerial elements involved	 factorial dynamic approach processual dynamic approach dynamic approach of performance mixed dynamic approach

Typology of dynamic approaches of management

Table no. 1

The approaches identified can be summarized as follows.

a) Depending on the nature of issues analysed:

- The dynamic approach focusing on management, where the issue is limited to the processes, relationships, systems, methods, etc. of the management. They usually have more rigor and managerial value compared to others. However, this approach is not very common in the management literature.
- The multidimensional dynamic approach, containing managerial elements but analysing these in close correlation with certain technical, economic, human, legal and cultural aspects. This type of approach is most frequently used because of the systemic nature of organizations over which is exercised management and because the functionality and general performances have a multidimensional determination. The main limitations often reside in the insufficient delimitation and analysis of the managerial elements and in the low specificity or amount of contribution to organizational development.

b) Depending on the degree of coverage of managerial elements within organizations:

- The global dynamic approach, which takes into account all essential elements of organizational management, including strategy and policies, the management system, and its five subsystems (managers, leadership, organizational culture, effectiveness and performances of management). The global dynamic approach very rare, and most often refers to small organizations enterprises or institutions –in which the amount and complexity of managerial elements is low.
- The partial dynamic approach, which is focused on specific components of organizational management. Any management element may be the subject of the partial dynamic approach. Of course, these kinds of studies and dynamic analyses usually deal with the most important management components: managers, strategies, organizational structures, information systems, human resource management, organizational culture and management performance. The aspects above have been addressed in thousands of studies, especially over the last 50 years.
- c) In terms of the temporal perspective:
 - The historical approach, aiming at the evolution of certain managerial elements from an investigated area over a certain period, which can vary over very wide limits. The most frequent approaches are those which compare managerial evolutions

over a few years (two to three), where the evolutions often have a pragmatic character. Usually, managers who use this approach aim to highlight managerial progress and performances obtained, and often compare these with the obligations outlined in their management contracts or in relation to the strategies and policies of their organizations. In recent decades some studies have emerged that look at longer periods, aiming essentially to identify new changes and trends. This type of research, which has been conducted mostly by academics, researchers and consultants from large firms, has contributed significantly to the development of management science and its professionalization. As example of this is Nicolescu and Verboncu's (1994) study, which deals with the historical evolution of management and highlights it essential progress during the transition from one stage of economic development to another – the primitive stage, slavery, feudalism and capitalism. Scientific research based on the historical management approach demonstrates that the evolution of human society in general, and the economy in particular, has been due, to a considerable extent, to the qualitative changes in management.

- The prospective approach, which is characterized by the fact that, starting from a thorough analysis of managerial realities in certain areas, it anticipates managerial developments over the short, medium or long term.
- The mixed approach, which includes an analysis of both the historical and the prospective approach. A large part of this type of analysis has a pragmatic purpose, as it is used to project forecasts and/or strategies. It has great complexity, and generates high-quality results. In the last decade, the mixed approach mainly focused on the country or on the international level such as the European Union. The mixed approach incorporates all the advantages of the historical and prospective approaches, and eliminates many of their disadvantages.

d) Depending on the characteristics of the managerial elements involved:

- The factorial dynamic approach, which takes into account significant factors or variables that determine and/or influence the running and performance of management processes and relationships. With the development of the economy, and the increasing use of mathematics, statistics, and informatics in management, this type of analysis has proliferated relatively rapidly. Many reputed management journals (Organisation Science, Journal of Small Business Management, International Small Business Journal)have published such studies. Overall, they have contributed significantly to the "scientification" of management, and to the deeper understanding and analysis of management phenomena and processes. In the last decade, studies have been published that contain many detailed factorial analyses on managerial elements, but without detailingthe major impact on management theory and practice. Studies of this type, through the use of scientific devices and graphical illustrations, are very impressive and appear to be complex, but the value they add is minimal at best.
- The processual dynamic approach, which focuses on the evolution of important managerial processes in organizations. Specific to this approach is the analysis of characteristics' dynamics with in the main categories of processes and management activities in the organization. This type of approach frequently refers to organizational processes, information processes, decision-making processes, manager-stakeholder relationships, organizational culture, leadership, etc.
- The dynamic approach to management performance. Since the main purpose of management is to achieve and enhance performance, many studies are dedicated to the dynamic analysis of management systems performance. The content of this type of analysis is particularly heterogeneous. Some studies focusing on quantitative results of management often fail to consider the overall results of the managed system. Others take into account the dynamic evolution of qualitative management performance, which is less impressive, but often cover areas in which quantification is not or is not yet possible. The dynamic approach to performance has received a great deal of attention from specialists in management, as reflected in the numerous extant works in the field. For example, Carolyn Stringer from New Zealand has established a useful sub-typology dedicated to this. Using the criteria of time consumed and thematic scope, she defines four subcategories of management performance studies:
 - Longitudinal, which is characterized by the fact that researchers invest two to three years or more into investigating the field;
 - "Some depth and useful", where researchers assign more than three months to examining an organization and/or conduct over 18 interviews;
 - Cross-sectional; these studies are usually conducted within ashort time in several organizations;
 - Other, which includes studies with various other temporal features, thematic scopes and methodological approaches. In Appendix 2 of Springer's paper, she assigns over 90 studies from 1990-2003 published in two journals – Accounting, Organizations and Society and Management Accounting Research – into these categories.
- The mixed dynamic approach, within which we find, in different proportions, elements of previous types of dynamic approach. We note that dynamic management approaches in which simultaneous factorial and/or processual and/or outcome elements are analysed are the most common. Unfortunately, their rigor is often low, because it is difficult to combine into a dynamic, correctly and effectively, three types of approach that consider different levels of management, although they are undoubtedly complementary. This type of dynamic approach is often used to set goals, parameters and other managerial elements to be developed in the near future. Also, it is frequently used in the designing of organizational policies and strategies.

1.1.3. Main methodological elements involved

The diversity and complexity of the managerial dynamic approach is reflected in **the vast heterogeneity of the methodological instruments used**. There are usually taken from other areas of science, and involve many techniques, methods and approaches, which have the ability to capture and present significant elements of managerial dynamics. To date, no integrated, unified methodology for managerial dynamic analyses has been identified.

Based on these realities, we provide a brief overview of the methodological elements most frequently used in the management literature and practice, in relation to the dynamic approach. Our purpose is not to analyse these elements, as this would not meet the objectives and scope of this scientific research – but to make a short list and comment on it. This seems appropriate as it will help in realizing the purpose of this study, and will hopefully be useful to young researchers conducting managerial analyses of a dynamic nature.

According to our research on management studies and analyzes published in international literature, the most common methods and techniques used in the dynamic managerial analyses are:

- a) Indicators representing numerical expressions of economic, managerial or other kinds of phenomena and processes. In managerial analyses, the most common indicators fall into the following two categories:
 - Economic indicators, used to evaluate the economic performance of management and organizations turnover, profit, productivity, production output, added value, average salary a.s.o. These indicators are often used for conducting dynamic analyses of performance and global dynamic analyses;
 - Specific managerial indicators, which include the number of managers, posts, functions, hierarchical levels, executives, managerial methods and techniques used within an organization, management decisions, and so on.
- b) **Indexes** that, like indicators, are divided into two groups:
 - Economic indexes, used to express organizations' performances and trends with respect to managerial and economic
 performance over time. Among these are the innovation aggregate index, the index of labour productivity, the profitability
 index, and so on;
 - Managerial indexes, among which are the centrality index, the index of hierarchical share, the managers index, and so on. Currently, these indexes are used in managerial dynamic analyses on a relatively small scale.
- c) Managerial difference techniques, which involve increases or decreases over time in terms of absolute amount, the parameters expressing certain managerial processes. The technique applies to all of the economic and managerial indicators listed above. Unlike the indexes technique, it measures only increases or decreases in absolute numbers, without indicating what they represent relative to the indicator value from the base period. Therefore, managerial difference techniques are used less frequently than the indexes technique.
- d) Correlation coefficient, which determines the co-variation ratio of two random variables and the result of respective quadratic deviations. The correlation coefficient is used especially when considering multi-criteria decisions, relationships between organizational variables and components of organizational structure, changes in the number of managers and executives in relation to the volume of work performed and/or economic value generated, etc.
- e) Factorial analysis, which is the decomposition of the overall variance of the studied phenomenon managerial, economic, organizational and so on into components, in order to determine the mechanism that causes the phenomenon and, where possible, the contribution of each part and each variable so as to obtain a measure of overall performance for the considered phenomenon. Factorial analysis can be especially useful in global dynamic analyses targeting the behaviour over time of certain major managerial elements, such as the strategy of the organization, the organizational culture, the organizational system, the decision-making system, leadership, etc. Naturally, factorial analysis can be applied to highlight aspects of dynamism over several successive periods for the respective managerial element.
- f) Dynamic tables, which consist of gathering the recorded values of each managerial element analysed over a relatively long period of time. In order to generate significant findings by processing primary information, trends and so on, it is recommended that values for at least five periods (years, months, weeks, etc.) be included in the table. The longer the period considered, the higher the probability that the management analysis will discover elements presenting more certitude and utility. Dynamic tables are used for analysing the evolution of organizational structural components (job positions, departments, spans of control), the structure of human resources (managers, executives, economists, engineers, etc.), increases in managerial performance (profit, profit rate, market share), and so on.
- g) Diagrams, which are expressive graphical presentations using lines, points, shapes, etc., to represent the time and/or spatial manifestation of organizational, managerial, economic and other elements. Dynamic managerial analyses often use diagrams based on the time evolution of the respective elements, which is eventually mixed with spatial evolution. The most frequently used diagrams in dynamic managerial approaches are chronograms and histograms, band diagrams, point diagram, polar diagrams, line diagrams and cause-effect diagrams. Diagrams generate very good results in facilitating dynamic analysis for any managerial element whose evolution over time has been measured and recorded.
- h) **Case studies**, which are used to illustrate managerial situations from a certain point of view. Case studies can be used for managerial analyses considering any managerial element. In dynamic managerial analysis, case studies usually take one of two forms:
 - Those showing managerial elements during their temporal evolution, within a specified organization or field of activity, and with a focus on highlighting the relevant changes over time;
 - Those using pairs for the same organizational or managerial elements. The initial case study describes and characterizes managerial elements in the first year of the considered period. Case study pair (final) examines the status and progress of the respective managerial element in its last year of the period considered. By comparison, the relevant elements of the two case studies highlight the dynamic of the managerial changes, their significance and perspectives.

In recent decades, the number of econometric studies that consider particular areas of management has in creased significantly. Naturally, they analyse management elements in correlation with the economic elements of organizations or domains concerned. According to experts, these econometric studies have five main characteristics:

- They analyse productivity using a regression function, where productivity is the result of certain management practices;
- They identify why certain management practices increase productivity and the areas in which these practices have greater or smaller effects on productivity;