

## Foreword

### **AN APPLICATION OF THE SYSTEMIC THEORY IN THE FIELD OF INDUSTRIAL COMPANIES**

The enhancement of current globalisation represents the fundamental feature of the world economy at the beginning of the 21st century and is characterised by emphasising the trend to reduce and remove the barriers between the national economies and enhancing the connections between these economies. The globalisation we face derives from the fact that, by starting from the technological and economic development, a significant number of human activities are situated on such a large scale and scope that they exceed the national borders within the limits of which the sovereign states exercise their right to govern. The new actors have to cope with the challenge caused by the monopoly-type governance. Multinational corporations, global financial markets, non-governmental organisations, as well as criminal organisations and international terrorist networks have appeared. Their activity is not covered by international laws, which are based on formal agreements between the nation-states, for they have not been able so far to find a common ground for agreements regarding the issue of globalisation.

The international production, including the production of trans-national companies, branches, and other companies linked to the multinational companies, by agreements and alliances, without capital participation has known a strong development. The technologic progress allows the decomposition and desegregation of production processes. Companies choose the place that meets the most favourable production factors for each of the stages of the production process.

In the globalisation era, the production environment of all countries comes to the stage of realizing the real prosperity. With the growth of markets towards globalisation, all the firms need to deal with the challenges facing them. This has resulted in the materialization of automated industries with high performance of manufacturing systems.

In this context, the development of systems theory and its application in strategic management holding company becomes a necessity. The increased development of the theory of systems provides its possibility to be used in the applicative scientific research in very many fields.

Thus, the researches undertaken in the field of strategic management and strategies of companies by professors from Romania—“Valahia” University of Târgoviște, University of Petroșani, “Lucian Blaga” University of Sibiu—from Poland—Technology University of Częstochowska—and from Slovakia—Technical University of Kosice—by using the systemic theory, have led to some conclusions with great generalisation power in the field concerning the industrial companies that perform their activity under the conditions of current globalisation. The result of the researches was the elaboration of this book structured on the following major problems: considerations regarding the theory of systems, system management

risk, organisation as system, the company on the terms of market economy, formal and informal structure of the organisation, theoretical approaches of the current strategic management, theoretical approaches of company strategies, production strategies in the mining machine and machinery manufacturing industry, strategies regarding the production quality in the company, and others.

The team of authors has structured the scientific research into two sections, namely:

**Section 1:** “The Company Dealt with Systemically,” in six chapters approaches these problems: information in systems theory; the risk in systems management; use of systems theory to deal with industrial companies; companies’ operation environments in a global economy; companies’ activities on the current market economy; companies’ organisations under current globalization.

**Section 2:** “Use of Systemic Theory in Strategic Management,” in eight chapters approaches these problems: companies’ strategies – a theoretic approach; considerations on the current state of strategic management; communication in companies’ development processes; production strategies of companies in the machine manufacturing industry; strategies used to improve industrial companies’ production quality; budgeting technique of strategic management; use of budgets to elaborate the strategy of industrial production costs; interdependence relation between industrial companies’ logistics and commercial strategies.

The problems treated in the two sections of the book can be grouped in three main directions:

- The presentation of the current stage of the systemic theory in the first two chapters, including the risk in the management of the systems, according to the opinions in the literature;
- The implementation of the systemic theory at the study of companies in the current globalised market economy, particularly highlighting the harmonisation of the company’s structure with its development strategies. This approach is the content of the following three chapters of the book;
- Companies’ strategies and strategic management through the systemic theory is dealt with in the following four chapters of the book. A logical dealing with the problem approached by starting from the current stage of the theory in the field of strategic management and companies’ strategies in the market economy was continued by dealing with the production strategies of the companies in the automotive industry; for in the end, the special role would be highlighted, that the strategies have it concerning the production and quality of the production process in industrial companies that perform their activities under the conditions of current globalisation.

Such an approach is widely used in the econometric models elaborating the strategies of industrial companies, particularly to optimise the managerial decisions concerning the adoption of a certain strategy. The theory of artificial intelligence was also used, meaning that of expert systems in the elaboration of production strategies.

In the same context, the quality of the activity performed by the production companies was dealt with, using the economical-mathematical models provided by the Japanese management methods, such as the Taguchi method.

Such an interdisciplinary and even international approach of the issue in the book has resulted in conclusions that address students, MA students, entrepreneurs, and specialists in the field of production companies.

Taking this into account, this book is providing further understanding of the subject with more fruitful ideas to academic researchers and managers of organizations in the pipeline.

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