



CRACOW  
UNIVERSITY  
OF ECONOMICS



# ENTERPRISES AND ECONOMIES IN THE FACE OF CONTEMPORARY CHALLENGES

MANAGEMENT – RESTRUCTURING – INNOVATION



EDITED BY

MAREK DZIURA, ANDRZEJ JAKI, TOMASZ ROJEK



**ENTERPRISES AND ECONOMIES  
IN THE FACE  
OF CONTEMPORARY CHALLENGES**

**Management – Restructuring – Innovation**



**CRACOW UNIVERSITY OF ECONOMICS**  
**Department of Economics and Organization of Enterprises**  
**FOUNDATION OF THE CRACOW UNIVERSITY OF ECONOMICS**

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**Edited by  
Marek Dziura, Andrzej Jaki, Tomasz Rojek**

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# TABLE OF CONTENTS

INTRODUCTION .....	9
--------------------	---

## PART I

---

### DETERMINANTS OF ENTERPRISES' MANAGEMENT IN SELECTED AREAS

#### CHAPTER 1

*Beata Skowron-Grabowska*

PROBLEMS OF ORGANIZATIONAL BEHAVIOUR OF ENTERPRISES IN THE CONTEXT OF RELATIONAL CAPITAL .....	15
---	----

#### CHAPTER 2

*Katarzyna Olejczyk-Kita*

RARE RESOURCES AND NETWORKS .....	29
-----------------------------------	----

#### CHAPTER 3

*Katarzyna Sukiennik, Beata Skowron-Grabowska*

ORGANIZATIONAL CULTURE IN ENTERPRISES IN MULTI-CRITERIA EVALUATION IN THEORY AND PRACTICE .....	35
--	----

#### CHAPTER 4

*Zora Arsovski, Slavko Arsovski, Ivan Milošević*

PROCESS AND ENTERPRISE RISK MANAGEMENT IN CONTEXT ANALYSIS .....	49
--	----

#### CHAPTER 5

*Wojciech Ćwiąg*

THE STIMULANTS OF ENTERPRISE VALUE – TYPOLOGY AND EVOLUTION .....	69
---	----

#### CHAPTER 6

*Jolanta Walas-Trębacz*

MODELS AND CONCEPTS HELPFUL IN ASSESSING EFFICIENCY OF ENTERPRISE VALUE CHAIN .....	79
--	----

**CHAPTER 7***Honorata Howaniec*

THE EMPLOYER BRANDING AS AN ELEMENT OF CORPORATE IDENTITY ..... 93

**CHAPTER 8***Marian Duczmal, Katarzyna Wiktoria Syrytczyk*THE IDEA OF SOCIAL RESPONSIBILITY AND SUSTAINABILITY  
IN SUPPLY CHAIN MANAGEMENT ..... 101**CHAPTER 9***Malgorzata Dutka-Mucha*MOTIVATING WORKERS AS A SIGNIFICANT ELEMENT OF MANAGING  
AN ORGANISATION ..... 109**PART II****ENTERPRISES' RESTRUCTURING – LEGAL, ECONOMIC  
AND SOCIAL ASPECTS****CHAPTER 10***Aleksander Prokopiuk*

RESTRUCTURING ENTERPRISES IN THE LIGHT OF THE POLISH LEGAL REGULATIONS ..... 123

**CHAPTER 11***Sandeep Bhardwaj, Srini Srinivasan*DE-STRUCTURING THE ORGANIZATION PROCESSES AND STRUCTURES IN THE FACE  
OF CHANGES ..... 135**CHAPTER 12***Kamil Czajka, Marek Dudek*MANUFACTURING STRUCTURE FORMATION IN NETWORK MANUFACTURING SYSTEM  
UNDER CONDITION OF RESOURCES DISTRIBUTION ..... 145**CHAPTER 13***Barbara Siuta-Tokarska*THE CONDITIONS AND FACTORS OF DEVELOPMENT OF THE SME SECTOR ENTERPRISES  
IN THE ASPECT OF REGIONAL DEVELOPMENT ..... 155**CHAPTER 14***Honorata Howaniec*

THE EMPLOYER BRANDING AS PART OF THE VALUE CREATION IN THE COMPANY ..... 167



**CHAPTER 15***Anna Brzozowska, Arkadiusz Niedziółka*

THE MANAGEMENT OF AGRITOURISM ORGANIZATION IN THE ASPECT OF RESTRUCTURING CHANGES .....	177
---	-----

**CHAPTER 16***Katarzyna Żmija*

REASONS FOR TAKING-UP NON-AGRICULTURAL ACTIVITIES AND FACTORS DETERMINING THE SELECTION OF THE INDUSTRY IN THE OPINION OF ENTREPRENEURS OWNING SMALL FARMS.....	187
---	-----

**PART III****INNOVATION IN THE DEVELOPMENT PROCESS****CHAPTER 17***Teresa Myjak*

INNOVATION IN THE ACTIVITIES OF KNOWLEDGE-INTENSIVE ENTERPRISES .....	199
---	-----

**CHAPTER 18***Michał Turczyk*

MODERN DEVELOPMENT STRATEGIES OF COMPANIES INSPIRED BY INNOVATIVE AND RESEARCH AND DEVELOPMENT DRIVEN ACTIVITIES.....	207
---	-----

**CHAPTER 19***Marek Dziura*

THE NEW IMPERATIVE OF INNOVATION FOR VISEGRAD GROUP COUNTRIES.....	221
--	-----

**CHAPTER 20***Tatiana Dubrova, Anna Ermolina, Michail Esenin, Dariusz Sala*

SMALL INDUSTRIAL ENTERPRISES IN RUSSIA: REGIONAL HETEROGENEITY OF INNOVATIVE ACTIVITY DEVELOPMENT .....	235
---	-----

**CHAPTER 21***Artur Kozioł*

INNOVATIVE MANAGEMENT OF THE UNITS OF TERRITORIAL SELF-GOVERNMENT AS EXEMPLIFIED BY THE TOWN AND COMMUNE OF WIELICZKA .....	247
---	-----

**CHAPTER 22***Mustafa Cem Aldağ, Bülent Eker, Ayşegül Akdoğan Eker*

INNOVATION PROCESS IN THE MANUFACTURE OF AGRICULTURAL MACHINES .....	259
--	-----

**CHAPTER 23***Katarzyna Koziol-Nadolna*

CROWDFUNDING AS AN INNOVATIVE MODEL OF PROVIDING FUNDING TO PROJECTS. . . . . 263

**PART IV****INTERNATIONALIZATION  
OF ENTERPRISE ACTIVITY****CHAPTER 24***Adam Peszko, Agnieszka Peszko*TWO NEW FUNDAMENTAL INSTITUTIONS NECESSARY FOR FAIR AND EFFECTIVE  
FUNCTIONING OF THE GLOBAL ECONOMY . . . . . 273**CHAPTER 25***Luisa Pulejo, Valeria Naciti, Nicola Rappazzo*THE EUROPEAN DIRECTIVE OF DISCLOSURE OF NON-FINANCIAL INFORMATION:  
ITALIAN EVIDENCES . . . . . 283**CHAPTER 26***Tomasz Kusio*THE IMPACT OF PROMOTING SCIENCE ON INCREASING INTEREST IN BUSINESS  
COLLABORATION . . . . . 293**CHAPTER 27***Magdalena Makiela*MEDIATION IN COMMERCIAL DISPUTES IN LITIGATION – WHY IS IT RECOMMENDABLE  
TO ENTER INTO SETTLEMENTS . . . . . 301**CHAPTER 28***Agnieszka Cichoń, Dariusz Cichoń*RENTAL MARKET FOR LOCAL PROPERTY IN THE LIGHT OF THE THEORY OF SITUATION  
CONDITIONS . . . . . 313**CHAPTER 29***Grzegorz Michalski, Małgorzata Rutkowska, Adam Sulich, Robert Rothe*

THE GREEN JOBS AND THE INDUSTRY 4.0. . . . . 321

# INTRODUCTION

Regardless of different opinions and discussions of contemporary economists, as well as theories and models regarding the present market, it is beyond any doubt that the contemporary economy poses new challenges to entrepreneurs and strategists. The impact of current trends in the economic development on the shape and perspectives of the management process is primarily manifested in the complexity of economic conditionings influencing enterprises, in the interrelation of economic entities, as well as the volatility and unpredictability of economic conditions.

The functioning and development of an enterprise take place today in totally different conditions than ever before. The new quality of the conditions of development is first of all related to their unprecedented complexity and instability. The disappearance of borders between markets, sectors is the reason for which the number of developmental factors affecting every enterprise is rising dynamically. It turns out that it is necessary to consider developmental challenges arising from global markets or seemingly distant sectors. More and more interrelated factors are critical for the developmental capabilities of enterprises, determining their successes or failures. Along with the growing complexity of developmental conditions, their dynamics is increasing rapidly. The speed of development and ageing of products, business models or whole sectors is rising significantly. In the contemporary economy time passes much faster than ever before. It is becoming a great challenge for enterprises, which are forced to take risky roles of precursors in various market activities, obstruct activities of imitators, react faster and faster to unpredictable challenges. Even slight slowdown of the speed of development can mean difficult to reduce losses in comparison with the leaders of changes. In these conditions, it becomes necessary to analyse fast and deeply numerous, key challenges for the development of firms, and the requirements of competitiveness prompt them to undertake many activities which contribute to development or at least maintenance of the existing market position. The significance of innovativeness, agreements and integration relationships among enterprises, the search for sales markets outside the home country are growing. The enterprise itself is changing, the role of intellectual capital is bigger and bigger, new firms are often virtual, they display a lot of flexibility of action, the scope of their functioning is very liquid. The forms of financing enterprises are changing, alternative sources of this financing and financial engineering which enables raising capital from different sources in the best possible proportions for the enterprise are more and more frequently used.

Due to the dynamically changing economic environment, enterprises face a great variety of needs, objectives and challenges that conducting activity in the current economic reality entails. Therefore, they often take decisions about introducing changes in the conducted activity, aiming at growth, expansion, wish to maintain the market position already possessed, or they frequently treat the process of changes as the protection against bankruptcy. We should also remember that, in its essence, change is a continuous process, and its introduction should be characterised by purposefulness, that is the assumption of the occurrence of a specific result as a consequence of its introduction. Changes express themselves in the transformation of a firm's elements and relations among them, as well as relations taking place between the enterprise and its environment. In this context, the term restructuring occurs automatically, understood

as the process of systemic reconstruction, modernisation or transformation of the organizational structure and the rules of the enterprise functioning. The process has numerous premises, it is complex, but it is always an inherent part of the mechanism of necessary changes of a business entity. Changes in customer needs, the growth of competitiveness of other entities, expectations of business partners, changes in regulations are only some of the factors which directly influence making a decision about the restructuring of the conducted business activity by an enterprise. Restructuring is always a process of significant transformations of the concept and functional solutions of the firm in such a way so that it achieved a competitive position both on the domestic and international market.

It should be observed here that contemporary restructuring changes require greater consideration of the focus on the innovativeness of an organisation in enterprise management, which should be the main creative force, permanently inherent to its management system and culture. Enterprises should regard knowledge and innovation as their priority, which means that they will consequently concentrate their effort on knowledge and innovation, and thus use their skills in collecting information about customer and competitor needs. It also becomes necessary to permanently undertake research into the innovativeness of an organization, including the assessment of the strategy implementation, effectiveness of cooperation in knowledge creation and innovation implementation.

Innovations are particularly significant in Poland, primarily in the context of significant contemporary conditioning of the functioning of our economy, namely a decline in the significance of the existing sources of economic growth, such as: relatively low labour costs, availability of cheap raw materials, favourable geographical location or benefits arising from the accession to the European Union. This, new sources of competitive advantage should be sought. One of the key paths of maintaining stable economic development is exactly the development of innovations leading to the restructuring of industry and introducing new business models, particularly those oriented at cost reduction and improvement of credibility for customers. In particular, it concerns new organisational forms focused on an increase in the effectiveness of the use of available resources, and the resources may refer both to tangible and intangible assets, including qualifications and motivation of workforce, organisational culture, reputation or know-how.

A consequence of the above diagnosis of the economic environment and needs in terms of possibilities to conduct business activity effectively is a need for changes in the processes of managing contemporary economies and organisations. It refers both to the evolution of the concepts, methods and instruments of management used so far, and to the implementation of totally new solutions in this respect. Therefore, this publication adopted as its basic aim to present, analyse and exemplify the conditions of the contemporary economy, identify its determinants, as well as to present concepts, models and tools of managing contemporary economies and organisations in the conditions of changing business, social and political environment, with special consideration given to the role of restructuring and objectives and tasks of the innovation process. Partial problems making up the completion of this goal are exposed in the form of the following four parts of the presented work:

- I. Determinants of enterprises' management in selected areas.
- II. Enterprises' restructuring – legal, economic and social aspects.
- III. Innovation in the development process.
- IV. Internationalization of enterprise activity.

In the first part, entitled *Determinants of enterprises' management in selected areas*, the Authors discuss problems referring to key mechanisms of the functioning and development of contemporary enterprises. They concern the issues of managing business resources of an enterprise and their components, as well as the conditionings of the creation of enterprise value as a result of the effective use of these resources.

The second part of the book, entitled *Enterprises' restructuring – legal, economic and social aspects*, shows the essence and usefulness of restructuring as an instrument of making radical changes in business

resources of an enterprise and within its activity. The changes have to be made considering economic, legal and social conditionings of enterprise functioning, including specific sectoral conditionings, related both to the size of an enterprise and the type of conducted activity.

The third part, entitled *Innovation in the development process*, exposes the significance of innovation for the shaping of the development of enterprises, regions and economies. The imperative of innovation is nowadays indicated as a key driver of economic development and an instrument of increasing competitiveness in the local, regional and global dimension. Innovative economy and innovative enterprises are the major challenges at the beginning of the third decade of the 21st century.

The last, fourth part, *Internationalization of enterprise activity*, exposes the global dimension of the functioning of contemporary enterprises and economies. On the one hand, it is connected with the influence of global economic, social and political processes on the local and regional dimension of enterprise functioning, on the other hand it refers to new challenges determining the functioning of global enterprises.

This book is a theoretical, methodological and empirical study, the aim of which is the presentation and systematics of the scientific and practical output concerning selected thematic areas, the discussion and critical assessment of this output, as well as the presentation of own reflections and proposals with regard to the analysed issues and problems. The publication is a result of many years' cooperation of the Department of Economics and Organization of Enterprises of the Cracow University of Economics with the representatives of various Polish and foreign scientific centres and persons representing the economic practice.

*Marek Dziura, Andrzej Jaki, Tomasz Rojek*



# **PART I**



## **DETERMINANTS OF ENTERPRISES' MANAGEMENT IN SELECTED AREAS**





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# PROBLEMS OF ORGANIZATIONAL BEHAVIOUR OF ENTERPRISES IN THE CONTEXT OF RELATIONAL CAPITAL

## *Summary*

*The organizational behaviour of enterprises constitutes a significant aspect in terms of economic theory and practice. This behaviour translates to a multitude of varied areas of activities of enterprises. These areas are featured by activities aimed at the identification of the employees with the enterprise with the aim of strengthening a cohesive and positive image of the enterprise at hand. The process of change identified with Transorganizational Development has been taken into account in terms of organizational behaviour for the enhancement of the efficiency of the enterprise. The basic aims of these processes are as follows: increasing the level of the quality of relations and the satisfaction of employees and the enterprise. The author introduced the hypothesis and verified them. In the paper It was assumed that relational capital has become a significant element in the business activities of enterprises that are subject to the challenges of a competitive market. In the paper relational capital was acknowledged to be an important resource in the strategies of enterprises. Indicating the significance of organizational behaviour in terms of various aspects requires the expansion of the problematic issues to include organizational culture. The increasingly greater scope of organizational culture in an enterprise, as well as its specifics have been underlined in the last part of the paper.*

**Key words:** *organizational behaviour, relational capital, enterprise*

\* \* \*

## **Introduction**

Organizational culture is of fundamental significance in terms of the organizational identity of employees and the perception of the image of the enterprise. By means of organizational culture the support of enterprises as a community of goals and interests of employees takes place, by which integrating their activities for the creation of values and the mission, while simultaneously leading to the survival and success of the economic organization. The condition for such a type of activities is the adherence to norms and patterns that are identified with the organizational culture of an enterprise. Likewise,

there is an emphasis on the role of employee teams in the creation of organizational culture. Within the framework of the required organizational culture and organizational behaviour, while simultaneously the support of relational capital, the superior and common goal of enterprises has been stipulated. The aim of this is the improvement of the efficiency of enterprises. Hence, organizational behaviour should aid the course of the activities of enterprises that are aimed towards the improvement of their efficiency.

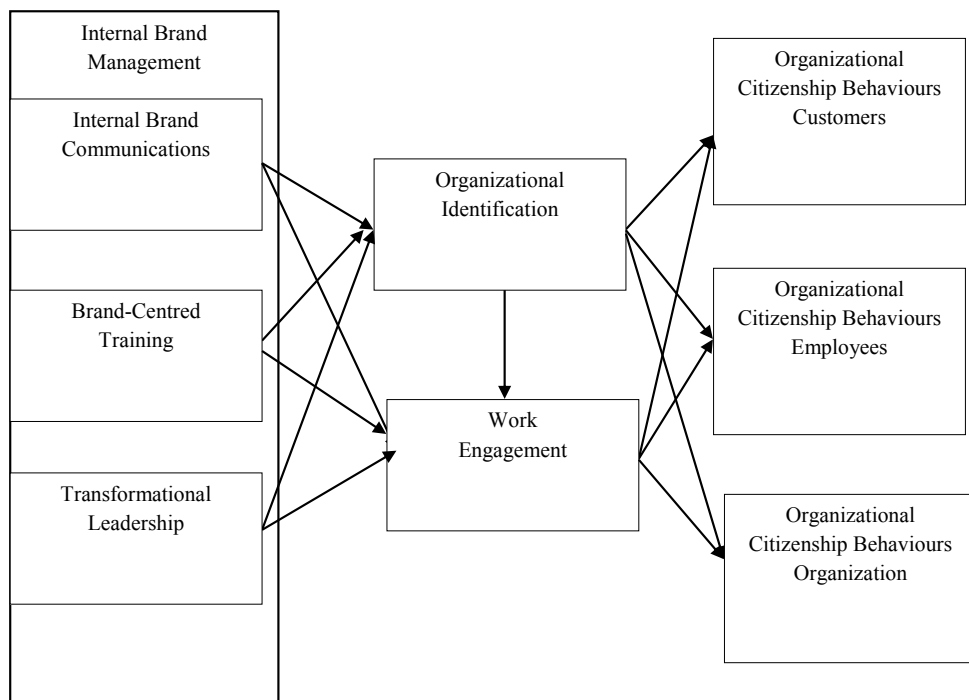
Fundamental problems of organizational behaviour in enterprises

The problematic issues of organizational behaviour in an enterprise are deemed to be significant issues of economic theory and practice. Organizational behaviour constitutes the subject matter of deliberations over a long-term perspective, albeit the scope of interest differs in the particular periods of development of science on management. The concepts of management in the first stages of the development of science on management focused on the issues of organizational behaviour in a small scope.

Organizational behaviour currently constitutes a significant element in the identity of an organization as there are elements which strengthen the cohesive image of enterprises. The identification of employees with the enterprises is the determinant for interpersonal ties and the positive image of enterprises in the market environment. The principles of the functioning of enterprises on the market are shaped by organizational culture which is determined by the internal system of values. Thus, organizational behaviour translates to a multitude of areas of activities of enterprises. In the system of organizational behaviour the following are also to be found: personal contacts, appearance, while also the manner of conducting negotiations. There has been an indication of the elements of organizational behaviour that facilitate the effective action of the motivational system at the employee level and the enterprises as a whole. By way of consequence, these processes are aimed towards shaping the visual image of the enterprise, as well as the identity of style, culture and communicative activities. In this process the integration of the deliberate pursuit of the creation of standardized methods of organizational behaviour take place in the enterprise and its environs. In terms of the development of the organization, it is necessary to refer to the process of change which is reflected in literature as the concept of the transorganizational system (TS). The basis of the afore-mentioned concept is the problem of transorganizational development (TD), in which changes are planned and the TS is created with the aim of improving the efficiency of the organization.

Interest in the changes is determined by the necessity to adapt knowledge, skills and resources in organizations. The process of transorganizational development must ensure a positive response to the activities created, particularly in the sphere of costs and benefits. In organizational activities, it is essential to refer to leadership and indicate the streamlining of the organizational structure, while also tasks in the sphere of communication. Hence, it is becoming crucial to prepare the policies of transformation and the necessary procedures. The basic aims of the activities of evaluation have been assumed to be the improvement of the quality of ties and the satisfaction of the employees and the enterprise itself. A comprehensive analysis of organizational behaviour was conducted by J. Buil, E. Martinez, J. Matute in which they indicated the relations between the Internal Brand Management, Organizational Identification and Work Engagement. A total of 323 employees of the principal hotel chains operating in Spain were analysed. Various dimensions of the internal management of the brand were displayed in this model, as well as the differentiated basis of organizational behaviour. On the basis of research, it is possible to formulate the conclusion that the Transformation Leadership avails of organizational identification and work engagement. Simultaneously, the research illustrates that the activities which have a significant impact on the opinions of clients with relation to the brands (Brand Training/Communication) do not directly evoke positive reactions and emotions at the workplaces. A decidedly more effective stimulator of organizational behaviour should be acknowledged to be the level of involvement in tasks arising from the scope of duties than the feeling of association with an organization (Fig. 1).

Fig. 1 Tasks in organization



Source: Buil, I., Martinez, E., Matute, J., *From internal brand management to organizational citizenship behaviours: Evidence from frontline employees in the hotel industry*, in: *Tourism Management* 57/2016, pp. 256-271.

In Fig. 1 it has been illustrated that in terms of organizational behaviour, it is possible to distinguish the institutional context. It is assumed that the processes of the effective action of institutions facilitate the realization of social expectations. Alongside the simultaneous achievement of a high level of conformance with the social principles, organizational behaviour of an informal nature is also created. As a result of these actions, there is the possibility of ensuring the predictability and efficiency of organizational behaviour in enterprises, as well as in society<sup>1</sup>. The institutional context translates to the functional structure, which as a base for the integration of the processes of management determines the organizational behaviour of enterprises<sup>2</sup>. In their sphere the costs of creating a friendly organizational vibe are to be found, which constitute an element of the activation of the enterprise<sup>3</sup>. This activation subsequently translates to organizational creativity. The fundamental dimensions of organizational creativity are novelty and usefulness. Novelty relates to the extent of which an idea is new for the particular enterprise in question. However, in terms of usefulness, we identify the scope in which the new idea may be availed of with

<sup>1</sup> E. Gruszewska, *Ewolucja instytucji w Polsce – dryf doładu czy dryf ładu? /W:/ Spontaniczne i stanowione elementy ładu gospodarczego w procesie transformacji – dryf ładu czy jego doskonalenie?* Red.: P. Pysz, A. Grabska, M. Moszyński. PTE, Warszawa 2014, p. 257.

<sup>2</sup> M. Brzeziński, *Integracja nauki i praktyki zarządzania*, *Przegląd Organizacji*, 2016, Nr 4, p. 20.

<sup>3</sup> A.J. Baruk, *Relacje między przełożonymi i pracownikami vs gotowości do rekomendowania przez nich pracodawcy. /W:/ Organizacja inteligentna. Perspektywa zasobów ludzkich*, Red. C. Suszyński, G. Lesniak-Lębkowska, SGH Warszawa, 2016, p.149.

the aim of ensuring a higher degree of effectiveness of the enterprise<sup>4</sup>. With relation to the dimension of organizational creativity which novelty relates to, it is necessary to point out that its characteristic feature is bringing value to the stakeholder. The process of generating novelties must be bonded with the usefulness of the resources. The most justified in terms of this sphere of deliberations is a reference to the research work by R. Krupski with regard to the usefulness of resources.

Table 1. Position in hierarchy of importance of actual usefulness of resource for neutralization of threats (dominant in empirical research in 11 types of distinguished resources)

Position	Large firms	Medium-sized firms	Small firms	Micro-sized firms
1	Knowledge	Employee attitudes and behaviour	<b>Non-formalized relations</b>	Knowledge
2	<b>Non-formalized relations</b>	Knowledge	Knowledge	Source of financing
3	Employee attitudes and behaviour	Routine, inter-organizational solutions	Employee attitudes and behaviour	Employee attitudes and behaviour
4	Routine, inter-organizational solutions	Sector-based technologies	<b>Formalized relations</b>	Location
5	Source of financing	<b>Non-formalized relations</b>	Routine, inter-organizational solutions	<b>Non-formalized relations</b>

Source: R. Krupski, *Identyfikacja ważnych strategicznie zasobów przedsiębiorstwa w świetle badań empirycznych* [w:] *Zarządzanie – kontekst strategiczny, kulturowy i zasobowy*, Wyd, Akademii Ekonomicznej we Wrocławiu nr 1187, Wrocław 2007, pp. 13-23.

From the viewpoint of the subject matter of deliberations, it is necessary to underline that the particular subject matter of interest has become the non-formalized relations. Their positions are different with reference to the size of the enterprises. In large enterprises, they hold second place, whereas in medium-sized enterprises they are in fifth/last place. The importance of non-formalized relations in small enterprises is the highest in terms of the resources analysed. However, in micro-sized enterprises they hold fifth place. In the subsequent research, assessment was made on the usefulness of intangible resources in terms of availing of opportunities. Results illustrate that the most useful resources that enable opportunities to be availed of are those of non-formalized relations. The problem of the usefulness of intangible resources in the context of the activity of an enterprise is the subject matter of further research conducted by R. Krupski. In every type of activity of an enterprise non-formalized relations exist. They are placed between the first and fourth positions. Likewise, it is necessary to indicate the usefulness of non-formalized relations. The third position is prevalent in this case. Moreover, in intangible resources

<sup>4</sup> K. Bratnicka, *Twórczość organizacyjna: zdefiniowanie i operacjonalizacja nowego konstruktów*, /W:/ *Nowe kierunki w zarządzaniu przedsiębiorstwem – wiodące orientacje*, Red.: J. Lichtarski, S. Nowosielski, G. Osbert-Pociecha, E. Tabaszewska –Zajbert. Prace Naukowe nr 340 Uniwersytet Ekonomiczny we Wrocławiu, 2014, p. 28.

the great usefulness of employee attitudes and behaviour is stipulated. The most significant intangible resource from the viewpoint of usefulness was acknowledged to be that of knowledge. The people that acknowledge the usefulness of knowledge are more likely to accept the defined organizational behaviour, which consequently influences the efficiency of the functioning of the enterprise. A similar nature of dependencies is indicated by T. A. Hart, J.B. Gilstrap, M.C. Bolino. The authors in question, on the basis of research, state that organizational behaviour is connected with the indicators of the efficiency of employees. By way of example, the model presents how the organizational behaviour has an impact on the ability of the enterprise to adapt to new concepts. It was proposed that organizational behaviour would ease the relations between the routine procedures and the experimental processes.

### **Relational capital of enterprises**

Relational capital is becoming the prevalent problem in the functioning of enterprises in the 21<sup>st</sup> century. The development of enterprises in conditions of the rapid growth of the processes of globalization and competitiveness is created by the systematically changing list of premises which influence the functioning of the economic entities. In any case, the premises that were important for enterprises in the 20<sup>th</sup> century are becoming increasingly less valid. If we refer to the importance of capital, in the 20<sup>th</sup> century tangible capital was inherent. However, at the end of the previous century, particularly in the highly developed countries changes occurred in terms of the importance of capital in the economic processes. This change has generally involved the decrease in the importance of tangible capital in favour of intangible capital. This position of capital encompasses a multitude of elements whose level of importance has also undergone intensive change over the past few years. The structure of relational capital is presented in Fig.2.

In the structure of relational capital presented, a multitude of different elements have been distinguished. Such elements that unequivocally identify the enterprises, clients and cooperation with other economic entities are deserving of mention. The afore-mentioned cooperation is realized in the form of various agreements or networks of business ties. The key aspects of relational capital ensure the level of competitiveness of the enterprises. A similar line of thinking is adopted by M. Rzemieniak with regard to the relational capital of clients. By expanding the resource area, organizational capital is also distinguished, in which a fundamental role is played by the infrastructure assets encompassing the following:

- processes of management, together with their philosophy,
- activities in the sphere of organizational culture,
- IT system with specified relations,
- finances of the enterprise.

By indicating the elements of relational capital presented, it is fully justifiable to refer to the environs of the enterprises. Business entities treat the functioning of relations with regard to the ongoing processes of interaction in a manner that is above standard. Within the framework of the relational capital of enterprises, the specific countenance of the environment in which business units function is created is evident.

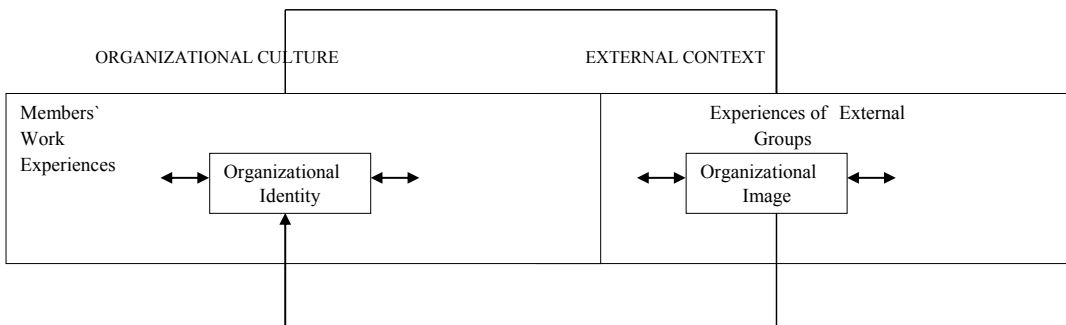
In undertaking the problem of relational capital, it is purposeful to cite the claim by M. Romanowska and J. Cygler, according to whom contemporary researchers may "...follow the process of blurring and erasing the boundaries and intricate relations between the elements of the organization and its environs that are formed during this process". The boundaries of the organization determine the scope of the impact of enterprises. This process defines the mechanism of the integration of enterprises with the environment within the framework of which actions are taken which facilitate the survival and development of business entities. Relational capital leads to the optimization of organizational behaviour

of groups of consumers, suppliers and clients. Economic practice reveals that there is a significant level of interest among enterprises in the creation of relations with the market environment. In the processes of the codependencies with the environment, both formal and informal, creating long-lasting relations facilitates the development of enterprises. Consequently, in an enterprise of relational capital this leads to the achievement of the defined skills in the sphere of the utilization of resources, which ensures the expected effects of their utilization. The herein context is also indicated by the results of research on Hungarian enterprises. Relational capital was acknowledged there as a significant element in the increase of the efficiency of an enterprise. Hence, relational capital is also becoming an important element of the activities of enterprises that are forced to meet the challenges of a competitive market. Likewise, relational capital constitutes an important resource in the strategies of enterprises.

### Organizational culture in organizational behaviour

The organizational culture of an enterprise plays a significant role in organizational behaviour. Subject-related literature indicates the increasing scope of organizational culture in an enterprise. Its nature is determined by a multitude of varied factors, of which it is possible to distinguish the following: the type of production and service operations of enterprises, the level of education of employees and their involvement in the execution of tasks at their work stations, as well as the standards designated for the personnel with the aim of realizing the strategies of operations of the particular economic entities. This in each enterprise a specifically unique culture prevails that is of fundamental importance in terms of the organizational identity of the employees, as well as for the perception of the organizational image. In this context, the fact of existence of the culture of the hierarchy and the occurrence of a moderate level of the organizational identity of the employees are underlined (Fig. 3).

Fig. 3. Hatch and Schultz's Model of Relationships between Organizational Culture, Identity and Image



Source: D. Bingöl, I. Sener, E. Cevic, *The Effect of Organizational Culture on Organizational Image and Identity: Evidence from a Pharmaceutical Company*, in: *Procedia – Social and Behavioral Sciences* 99/2013, pp. 222-229.

Hence, it is possible to assume that "... organizational culture is a profound, subconscious and abstract phenomenon that has an impact on the behaviour and relations of employees, whereas the organizational vibe is more conscious, specific and is visible in the customs prevailing in the organization, in behaviour and in the feelings of the employees<sup>5</sup>.

<sup>5</sup> M. Laguna, E. Purc, W. Rozmus, M. Błaszczuk, K. Gawrońska, *Podejmowanie szkoleń a kultura i klimat organizacyjny*, *Organizacja i Kierowanie*, 2015, Nr 2, p. 144.

The afore-mentioned definitions reveal that organizational culture should aid the efficient functioning of each enterprise as a community. With regard to the fact that all employees integrate their activity for the purpose of building common values, missions and aims, the survival and success of the economic organization is possible. However, this activity should be realized in conditions of cultural norms and patterns that favour the realization of these same values<sup>6</sup>.

In the area of the norms regulated by culture, such issues prevail as the following: trust and openness, undertaking challenges set by the enterprises, while simultaneously involvement at the workplace. Likewise, support and space<sup>7</sup> are important for the realization of new ideas, the appropriate involvement in conflict situations with the aim of their proper resolution. In subject-related literature, there is an indication of the mediatory role of organizational culture. The approach to work and behaviour with relation to the pro-social services between employees are distinguishable from this sphere. The issue which is essential in the field of the norms designated by the organizational culture is the problem of taking risk<sup>8</sup>, as well as the freedom of action at the workplace. In this manner, organizational culture may stimulate "... the behaviour of employees and constitute a context for the formation of new ideas and their execution"<sup>9</sup>. Resolving the problems of the organizational culture of enterprises is carried out by employee teams. In the scope of the actions of these teams, the social, technical, organizational and economic aspects are to be found that remain in the relations with the field of management<sup>10</sup>. Employee teams within the framework of organizational culture concentrate on the identification of the realization of the aims of the employees with the aims of the enterprise. In this process, the level of satisfaction among employees is important. With relation to the aforesaid, it is justifiable to refer to the research results in the sphere of the identity of the employee with the enterprise, while also the level of job satisfaction. In empirical research relating to the functioning of the employee teams, A. J. Baruk provided a verification of two research hypotheses as follows:

H<sub>1</sub> – assuming the existence of a positive dependency between the level of employee satisfaction with relation to the identification with the organization;

H<sub>2</sub> – assuming the existence of a positive dependency between the level of satisfaction in the context of the degree of the identification of the employee with the organization<sup>11</sup>. On the basis of the research results, it was claimed that "...the majority of respondents were at least satisfied, while 17.48% of the total analysed felt a very high level of satisfaction, almost one hundredth of those surveyed were very dissatisfied and a combined total of 18.45% of people indicated dissatisfaction, namely slightly more than the percentage of those very satisfied"<sup>12</sup>.

With regard to the research results indicated, it is justifiable to refer to the claim that indicates the course of action for the managerial staff within the framework of organizational culture. In accordance with the afore-mentioned trend, the manager should create the conditions for the identification of the employee with the organization, or rather his/her duties may not be tolerant towards such attitudes

<sup>6</sup> K. Piotrowska, *Analiza porównawcza kultury organizacyjnej polskich i portugalskich przedsiębiorstw*, Organizacja i Zarządzanie, 2015, Nr 3, p. 113.

<sup>7</sup> P. Pachura, *Management and Space – Introduction to Conceptualization*, Przegląd Organizacji, 2016, nr 1, p. 59.

<sup>8</sup> A. Korombel, *Apetyt na ryzyko w zarządzaniu przedsiębiorstwami*, Politechnika Częstochowska, Częstochowa 2013.

<sup>9</sup> T. Kraśnicka, *Związki proinowacyjnej kultury organizacyjnej z innowacyjnością technologiczną przedsiębiorstw – problemy pomiaru i wyniki badań*, Organizacja i Kierowanie, 2015, Nr 4, p. 22.

<sup>10</sup> Z. Jasiński, *Warianty organizacji zespołów twórczych w przedsiębiorstwie. Kreatywność, Innowacyjność, Przedsiębiorczość*, Praca zbiorowa pod redakcją: L. Kowalczyka i F. Mroczo, WWSZiP, Wałbrzych 2014, p. 176.

<sup>11</sup> A. J. Baruk, *Poziom zadowolenia i poziom satysfakcji pracowników a rynkowy potencjał organizacji – od kryzysu do sukcesu*, Organizacja i Kierowanie, 2015, Nr 3, pp. 126, 127.

<sup>12</sup> A. J. Baruk, *Poziom zadowolenia i poziom satysfakcji pracowników a rynkowy potencjał organizacji – od kryzysu do sukcesu*, Organizacja i Kierowanie, 2015, Nr 3, p. 127.

and behaviour that lead to the achievement of the goals of the enterprise<sup>13</sup>. In terms of professional development, apart from increasing the qualifications, it is essential to ensure satisfaction from the tasks executed<sup>14</sup>. Managers, by way of significant duties designate new markets. The focal point of interest for managers concentrates on the sphere of consumer culture and relations. An enterprise is forced to first and foremost become familiar with the principles of the cultural behaviour of clients and society. It is necessary to become familiar with the family position and pose a question regarding the level of education, social relations and the system of values prevalent in society<sup>15</sup>. Within the framework of the required organizational culture, as well as the appropriate organizational behaviour, the achievement of efficiency to meet the requirements of the competition is deemed to be a necessity. It is important to indicate the effects determining the organizational environment that is displaying increasingly greater intricacy in the context of the strategies of enterprises. These effects are perceived through the prism of their strategic values, encompassing the relations between organizational culture and the efficiency of the enterprise<sup>16</sup>. The context of deliberations in the sphere of organizational culture therefore comes down to ensuring the appropriate effectiveness of the enterprise. Effectiveness is the economic category that changes over time. If we conduct an evaluation of, for instance, effectiveness prior to and after the global crisis, then we acquire a list of necessary actions in the sphere of organizational culture that are essential to implement in enterprises. By referring to subject-related literature, it is purposeful to display the new concepts of business activities in this area. These concepts were presented by P. Wachowiak and S. Winch, who conducted a very interesting research analysis on the dimensions of the concepts of the organizational culture of chosen capital groups.

The basis for comparison was designated by the dimensions of the organizational culture prior to the global crisis and during the crisis. The dimensions of culture concentrated on the following: individualism, universalism, maintaining a distance from the authorities, collectivism and particularism.

In the capital group of Budimex, the only change in the dimensions of organizational culture related to maintaining distance from the authorities. Prior to the crisis, there was a small distance maintained towards the authority, while during the crisis this distance was specified as being large. With relation to Ciechu and Impexmetal, no changes occurred in the dimensions of organizational culture in the analysed period. However, significant changes occurred in Marvipolu. Collectivism was replaced by individualism during the crisis; while the small distance towards authorities changed to that of a large one<sup>17</sup>.

With regard to the research results achieved, the author by way of conducting her own research presented the managers of enterprises with a hierarchy of aims determining organizational behaviour. Economic efficiency was placed in first position (83% of the surveyed managers marked in this answer). Second place was taken by the nature of organizational culture, specified as individualism (11%). However, third place was given to organizational collectivism (4%). Hence, the research results illustrate the high degree of convergence in the sphere of the economic efficiency as a consequence of organizational behaviour, primarily the organizational culture.

In further research on the surveyed employees from 145 enterprises under analysis, an attempt was made to evaluate the organizational identity, as well as the level of loyalty with regard to the enterprise.

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<sup>13</sup> Cz. Sikorski, *Organizacyjne uczenie się jako forma kształtowania kultury organizacyjnej*, /In:/ *Organizacyjne uczenie się w rozwoju kompetencji przedsiębiorstwa*. Redakcja naukowa A. Sitko-Lutek, E. Skrzypek, C-H-BECK Warszawa 2009, p. 120.

<sup>14</sup> M. Michalak, *Możliwości rozwoju jako jeden z elementów warunkujących satysfakcję zawodową*, *Organizacje i Zarządzanie, Zeszyty Naukowe Politechniki Śląskiej*, Z 67, Gliwice 2013, p. 26.

<sup>15</sup> R. M. Hodgetts, *Management: Theory, Process and Practice*, USA 1982, p. 462

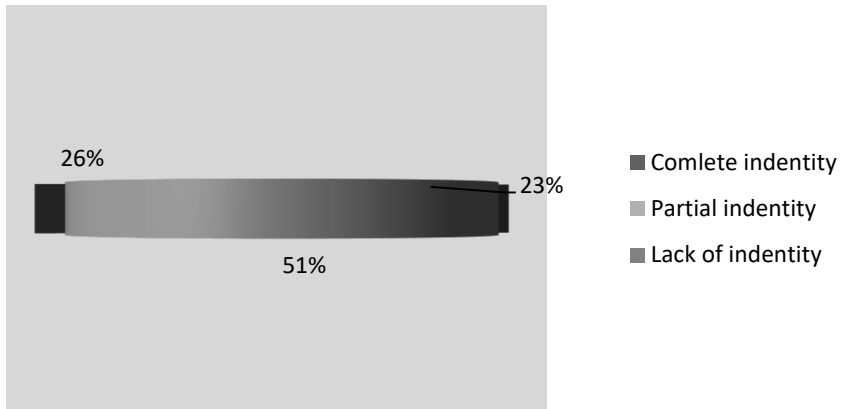
<sup>16</sup> E. Cicek, I. Kryak, *The Effect Of Culture On Organizational Efficiency: The Moderating Role Of Organizational Environment and CEO Values*, *Procedia Social and Behavioral Sciences* 24/2011, pp. 1560-1573.

<sup>17</sup> P. Wachowiak, S. Winch, *Kultura organizacyjna w czasie kryzysu*. /In:/ *Przedsiębiorstwo odporne na kryzys*, Redakcja naukowa: M. Romanowska, W. Mierzejewska, Wolters Kluwer business Warszawa 2016, p. 205.



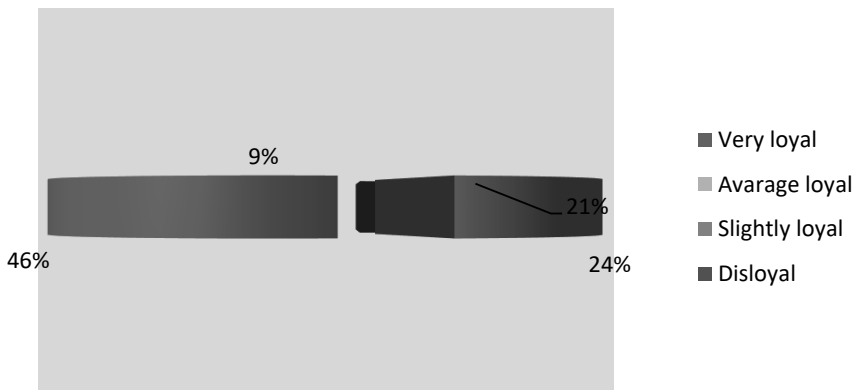
Research illustrates that the complete identity was declared by over 50%, whereas a lack of identity was noted in 26% of employees (Fig.4). Responses in terms of the loyalty of employees were represented as follows: 21% of employees are characterized by a very high level of loyalty, averagely loyal – 24%, slightly loyal – almost 46%, while disloyalty is represented by almost 9% of employees (Fig. 5).

Fig. 4. Structure of employees with regard to evaluation of organizational identity 7



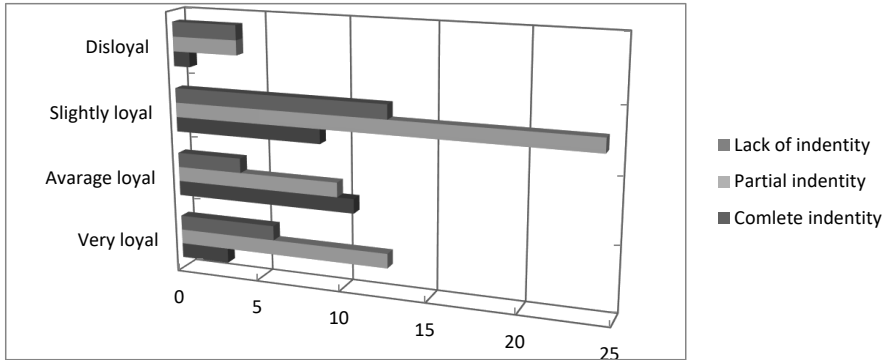
Source: Self-analysis on the basis of research results.

Fig. 5. Structure of employees with regard to level of loyalty



Source: Self-analysis on the basis of research results.

Fig. 6. Structure of employees with regard to level of loyalty and organizational identity



With relation to the afore-mentioned research of the areas under analysis, it is necessary to ask the following question:

Does a relation exist between the evaluation of organizational identity and the level of loyalty of employees? In order to answer this question, the following research hypotheses have been formulated:

H0: The level of loyalty of employees does not depend on the degree of development of their organizational identity.

H1: The level of loyalty of employees depends on the degree of development of their organizational identity.

The chi-square statistic has been utilized for the measurement of the dependency between the qualitative variables presented in the correlation table as follows:

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^k \frac{n_{ij}^2}{\hat{n}_{ij}} - n \tag{1}$$

whereby:

$$\hat{n}_{ij} = \frac{n_{i.} \cdot n_{.j}}{n} \tag{2}$$

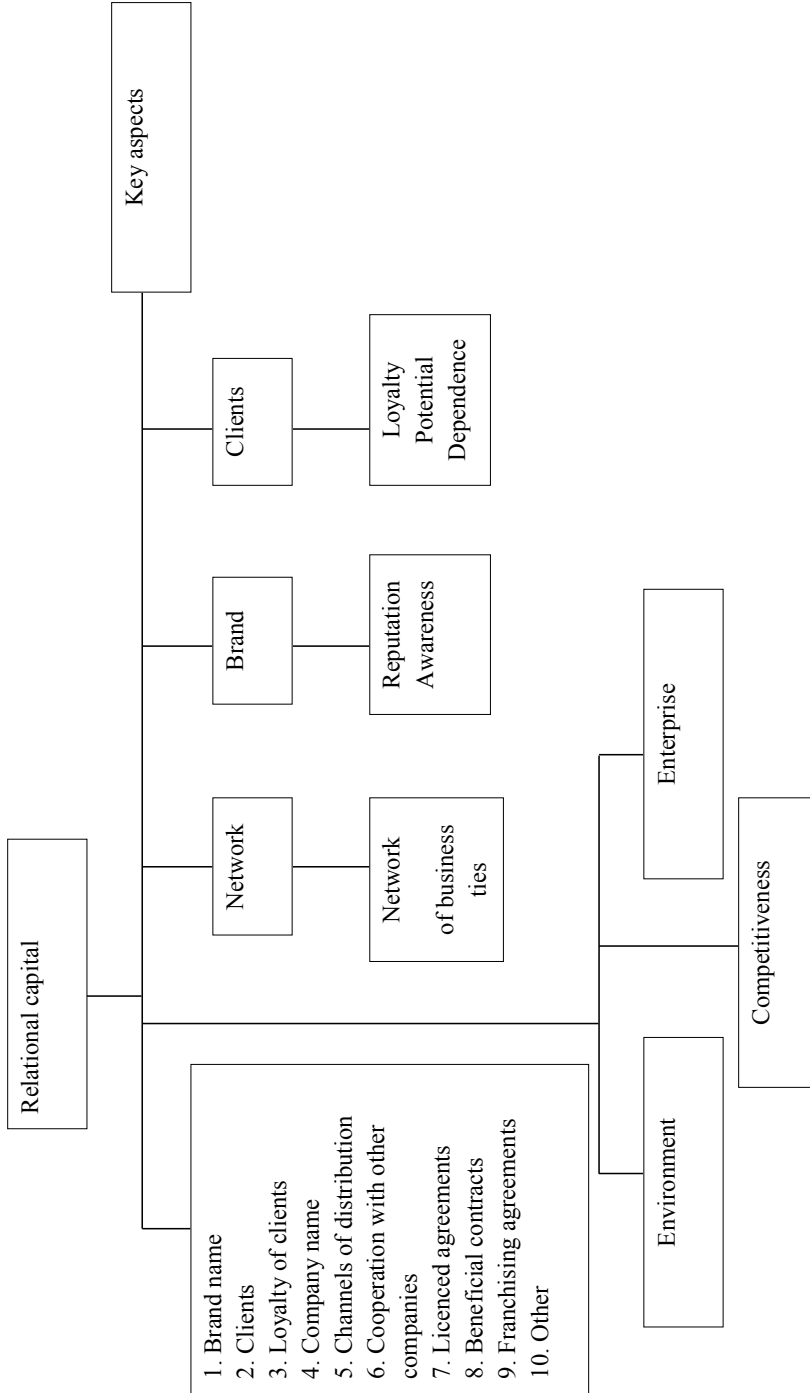
$n$  – number of attempts,  $n_{i.}$  – sum of numbers in  $i$ -this line ( $i=1, \dots, r$ ),  $n_{.j}$  – sum of numbers in  $j$ -this column ( $j=1, \dots, k$ ),  $n_{ij}$  – empirical numbers,  $\hat{n}_{ij}$  – theoretical numbers.

Table 2. Results of survey research relating to the evaluation of organizational identity, employees, enterprises and their level of loyalty with regard to the enterprise.

Evaluation of organizational identity	Evaluation of level of loyalty				Total
	Very loyal	Average loyal	Slightly loyal	Disloyal	
Complete identity	2.91 (4.98)	10.68 (5.66)	8.74 (10.64)	0.98 (2.04)	<b>23.31</b>
Partial identity	12.62 (10.78)	9.71 (12.25)	24.27 (23.04)	3.88 (4.41)	<b>50.48</b>
Lack of identity	5.82 (5.60)	3.88 (6,36)	12.63 (11.96)	3.88 (2.29)	<b>26.21</b>
<b>Sum</b>	<b>21.35</b>	<b>24.27</b>	<b>45.64</b>	<b>8.74</b>	<b>100</b>

Source: Self-analysis. The theoretical numbers have been provided in brackets for the chi-square statistics.

Fig. 2. Elements of relational capital



Source: Prepared on the basis of W. Wereda. Rola relacji międzyorganizacyjnych w kreowaniu rozwoju przedsiębiorstwa w warunkach niepewności. W. Procesy więzi organizacyjnych we współczesnej gospodarce Integracja – Kooperacja – Klastering. Red. R. Borowiecki, T. Rojek, Uniwersytet Ekonomiczny w Krakowie 2011, pp. 126,127.

On the basis of the empirical numbers and theoretical numbers presented in Table 2, the value of the chi-square statistic has been set in accordance with the equation (1).

The critical value is read from the distribution table of chi-square for the level of significance of 0.05 and 6, while the degree of freedom amounts to 12,5916.

At the level of significance of 0.05, there are no grounds for rejecting the zero hypothesis, namely the level of loyalty of an employee does not depend on the organizational identity.

The results of calculations illustrate that the H0 hypothesis is real, namely the level of loyalty of employees does not depend on the degree of development of their organizational identity.

Organizational culture is subject to specific changes, while at the same time it seems that it would be possible to state that the threats changed the behaviour of enterprises. Premises appeared at the basis of behaviour that mobilized the employee teams to take action that ensured the survival of the enterprise. The search for new solutions in this area of organizational culture should be acknowledged to be the appropriate course of operational and strategic action. In this direction, it is possible to display the organizational behaviour which is characterized by a high level of efficiency of action.

## Conclusion

The theoretical deliberations conducted and the research results attained by multiple researchers confirm the growing significance of organizational behaviour in the process of the functioning of an enterprise. It is possible to assume that knowledge and informal relations move the centre of gravity of the impact of organizational behaviour towards competitiveness. With regard to the focal point of deliberations, the results of survey research executed by other authors were referred to, while also self-analysis was conducted on the sphere of organizational culture. On this basis, it was possible to verify the research hypothesis. It was assumed that the level of loyalty of employees does not depend on the degree of development of their organizational identity in terms of the enterprise. The range of empirical research confirms the significance of organizational culture in the behaviour of the employees in the enterprise. Moreover, relational capital is created in terms of the aspect of subjective impact, namely enterprise-clients-enterprises in cooperation facilitates the growth of competitiveness. Hence, the increase in the level of competitiveness is acknowledged to be one of the primary aims of the enterprise whose achievement is determined by the organizational behaviour and relational capital.

## Bibliography

1. Baruk A.J.: *Relacje między przełożonymi i pracownikami vs gotowości do rekomendowania przez nich pracodawcy. Organizacja inteligentna. Perspektywa zasobów ludzkich*. Red. C. Suszyński, G. Leśniak-Łebkowska, Wyd. SGH, Warszawa 2016.
2. Baruk A. J.: *Poziom zadowolenia i poziom satysfakcji pracowników a rynkowy potencjał organizacji – od kryzysu do sukcesu*. Organizacja i Kierowanie Nr 3/2015, PAN, SGH, Warszawa.
3. Bingöl D., Sener I., Cevic E.: *The Effect of Organizational Culture on Organizational Image and Identity: Evidence from a Pharmaceutical Company*, [w:] *Procedia – Social and Behavioral Sciences* 99/2013,
4. Bratnicka K.: *Twórczość organizacyjna: zdefiniowanie i operacjonalizacja nowego konstruktów*. [w:] *Nowe kierunki w zarządzaniu przedsiębiorstwem – wiodące orientacje*. Red. J. Lichtarski, S. Nowosielski, G. Osbert-Pociecha, E. Tabaszewska-Zajbert. Prace Naukowe nr 340 Uniwersytet Ekonomiczny we Wrocławiu, 2014
5. Brzeziński M.: *Integracja nauki i praktyki zarządzania*. Przegląd Organizacji Nr 4/2016.

6. Cicek E., Kryak I. M.: *The Effect Of Organizational Culture On Organizational Efficiency: The Moderating Role Of Organizational Environment and CEO Values*, [w:] *Procedia Social and Behavioral Sciences* 24/2011.
7. Cyfert S.: *System granic architektury procesów organizacji determinanty kształtowania i dysfunkcje w definiowaniu*. [w:] *Nowe kierunki w zarządzaniu przedsiębiorstwem – wiodące orientacje*. Red. J. Lichtarski, S. Nowosielski, G. Osbert-Pociecha, E. Tabaszewska-Zajbert. Prace naukowe nr 340, Uniwersytet Ekonomiczny, Wrocław 2014.
8. Gruszewska E.: *Ewolucja instytucji w Polsce – dryf doładu czy dryf ładów? [w:] Spontaniczne i stanowiące elementy ładów gospodarczych w procesie transformacji – dryf ładów czy jego doskonalenie?* Red. P. Pysz, A. Grabska, M. Moszyński. PTE, Warszawa 2014.
9. *Granice zarządzania*. Red. M. Romanowska, J. Cygler, Szkoła Główna Handlowa, Warszawa 2014.
10. Hart, T.A., Gilstrap J. B., Bolino, M.C., *Organizational citizenship behavior and the enhancement of absorptive capacity*, *Journal of Business Research* 69/2016.
11. Hodgetts R. M.: *Management: Theory, Process and Practice*. USA 1982.
12. Hurta H., Dunay A.: *Trust as a Social Capital In Hungarian small and Medium – Size Enterprises. People Knowledge and Modern Technologies in the Management of Contemporary Organizations*. Ed. C. B. Illés, F. Bylok Göddölö 2013.
13. Jasiński Z.: *Warianty organizacji zespołów twórczych w przedsiębiorstwie. Kreatywność, Innowacyjność, Przedsiębiorczość*, Red. L. Kowalczyk i F. Mroczko. Prace naukowe WWSZiP t30, Wałbrzych 2014.
14. Kaleta A.: *Między tradycją a nowoczesną analizą strategiczną*. Przegląd Organizacji Nr 3/2016.
15. Kaplan R. S., Norton D.P.: *Alignment Using the Balanced Scorecard to Create Corporate Synergies*. *Harvard Business School*, Boston 2006.
16. Korombel A.: *Apetyt na ryzyko w zarządzaniu przedsiębiorstwami*. Wyd. Politechniki Częstochowskiej, Częstochowa 2013.
17. Krasnicka T.: *Związki proinnowacyjnej kultury organizacyjnej z innowacyjnością technologiczną przedsiębiorstw – problemy pomiaru i wyniki badań*. *Organizacja i Kierowanie* Nr 4/2015.
18. Krawczyk-Sokołowska I.: *Rola zasobów w kształtowaniu strategii rozwojowych przedsiębiorstwa innowacyjnego*. [w:] *Zarządzanie przedsiębiorstwem inteligentnym*. Red. S. Gregorczyk, W. Mierzejewska SGH Warszawa 2016.
19. Laguna M., Purc E., Rozmus W., Błaszczuk M., Gawrońska K.: *Podejmowanie szkoleń a kultura i klimat organizacyjny*. *Organizacja i Kierowanie*, Nr 2/2015.
20. Michalak M.: *Możliwości rozwoju jako jeden z elementów warunkujących satysfakcję zawodową*. *Organizacja i Zarządzanie. Zeszyty Naukowe Politechniki Śląskiej, Z. 67*, Gliwice 2013.
21. Pachura P.: *Management and Space – Introduction to Conceptualization*, *Przegląd Organizacji* 1/2016.
22. Piotrowska K.: *Analiza porównawcza kultury organizacyjnej polskich i portugalskich przedsiębiorstw*. *Organizacja i Zarządzanie. Kwartalnik Naukowy* Nr 3, Politechnika Śląska, Gliwice 2015.
23. Rzemieniak M.: *Zarządzanie niematerialnymi wartościami przedsiębiorstw*. Dom Organizatora, Toruń 2013.
24. Sikorski Cz.: *Organizacyjne uczenie się jako forma kształtowania kultury organizacyjnej*. [w:] *Organizacyjne uczenie się w rozwoju kompetencji przedsiębiorstwa*. Red. A. Sitko-Lutek, E. Skrzypek, C-H-BECK Warszawa 2009.
25. Światowiec-Szczepańska J.: *Inteligentne przedsiębiorstwo w sieci powiązań personalnych i instytucjonalnych*. [w:] *Organizacja inteligentna. Perspektywa zasobów ludzkich*. Red. C. Suszyński, G. Leśniak-Lebkowska SGH Warszawa 2016.
26. Wachowiak P., Winch S.: *Kultura organizacyjna w czasie kryzysu*. [w:] *Przedsiębiorstwo odporne na kryzys*. Red. M. Romanowska, W. Mierzejewska, Wolters Kluwer business Warszawa 2016.

- 
27. Wereda W.: *Rola relacji międzyorganizacyjnych w kreowaniu rozwoju przedsiębiorstwa w warunkach niepewności*. [w:] *Procesy formowania więzi organizacyjnych we współczesnej gospodarce. Integracja – Kooperacja – Klastering*. Red. R. Borowiecki, T. Rojek. Uniwersytet Ekonomiczny Kraków 2011.

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# RARE RESOURCES AND NETWORKS

## *Summary*

*In this paper we discuss the issues related to building competitive advantage in networks with the use of rare resources. We also try to determine whether there are enterprises in network that may own rare resources.*

\* \* \*

## **Introduction**

The contemporary business environment forces the enterprises to operate in a highly flexible manner. The enterprises which own relevant resources, in particular rare and hardly copyable resources, are more flexible. It appears that one of the best methods to get access to such resources is to participate in networks where their members own such resources and make them available to other network partners.

## **Importance of Resources for the Enterprise**

Resources are among the most important factors enabling enterprises to profitably operate on the market. According to R. Amit and P.J.H. Schoemaker, resources are stocks of available visible or invisible factors that are owned or controlled by the firm.<sup>1</sup> The proper configuration of all resources enables a firm to quickly and effectively react to variable conditions and to adapt to a turbulent environment.

When combining resources, the enterprise must give attention to the type of resources being combined. A.K. Koźmiński and W. Piotrowski note that the key resources must be combined in such a manner so as to create a set of hardly marketable, imperfectly copyable, rare and specialized resources and capabilities that enable an enterprise to build a competitive advantage.<sup>2</sup> There is a link between such configured resources and the resource-based theory. When analysing the K. Obłój's base model of the resource-based theory in the strategic management (Fig. 1) it is worth to consider whether, in the contemporary business environment, the enterprise's resources themselves supported by protection mechanisms are sufficient to ensure full and proper reaction to changes in the environment. It seems that such configured resources are not able to ensure sufficient flexibility and reactivity. Such resources may build the competitive

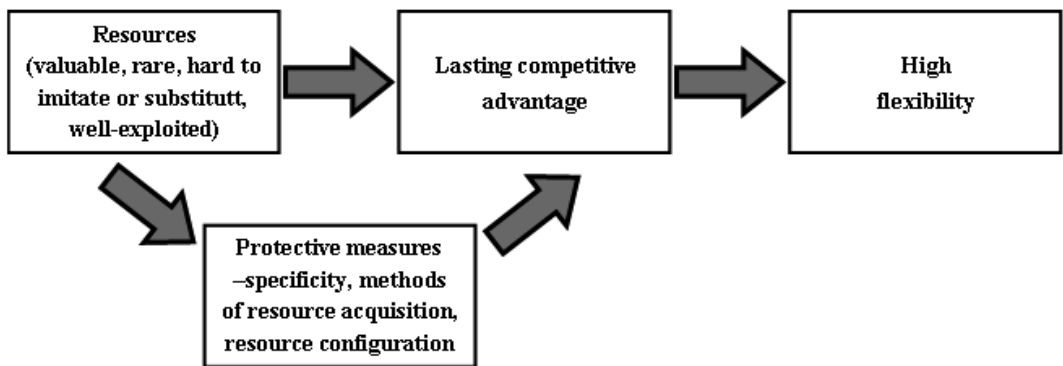
<sup>1</sup> R. Amit, P.J.H. Schoemaker, *Strategic Assets and Organizational Rent*, „Strategic Management Journal”, vol. 14, 1993.14, 1993.

<sup>2</sup> R. Amit, P.J.H. Schoemaker, *Strategic Assets and Organizational Rent*, „Strategic Management Journal”, vol. 14, 1993.

advantage but, considering continuous market fluctuations, the enterprise must also focus on properly configuring the resources and generating resource surplus. A strong competitive advantage is created by proper resources. Such resources have been identified by J.Rokita, and they are as follows<sup>3</sup>:

- Human resources (personnel, qualifications),
- Physical resources (factories, equipment, stock),
- Financial resources (receivables, capital, liquidity),
- Perceptual resources (clients, suppliers, competitors),
- Political resources (government, government agencies),
- Organisational resources (culture, system, structure, decision processes),
- Knowledge (industry evolution, macroeconomic changes, technologies).

Figure 1: Base model of the resource dependence theory in strategic management.



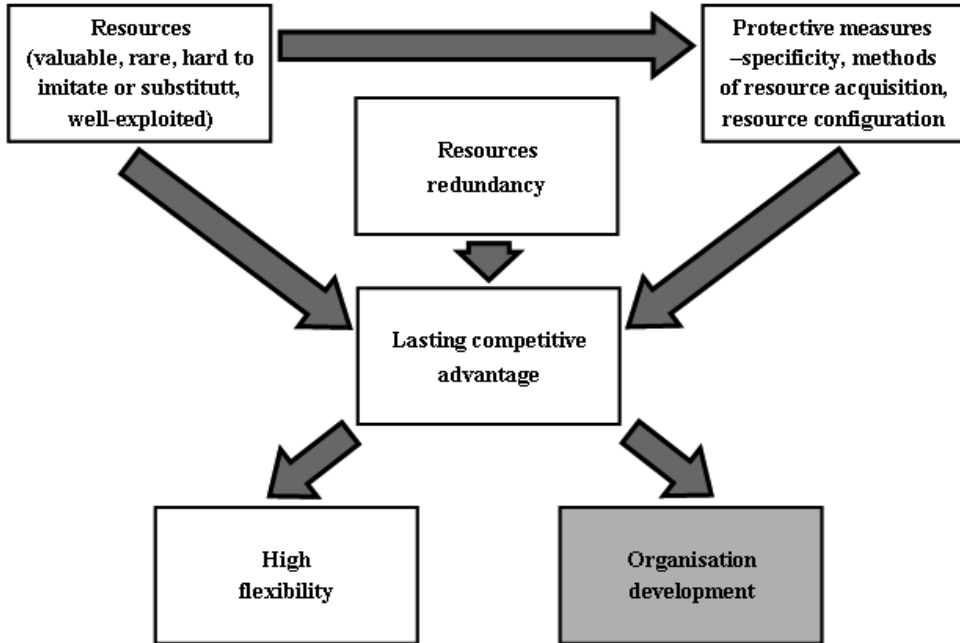
Source: R. Krupski, J. Niemczyk, E. Stańczyk-Hugiet, *Koncepcje strategii organizacji*, PWE, Warszawa 2009, behind: K. Obłój, *Pułapki teoretyczne zasobowej teorii strategii*, „Przegląd Organizacji” 2007, nr 5, s.170

By modifying the K. Obłój’s model with the resources redundancy (Fig. 2), the enterprise may not only build a bigger and a more sustainable competitive advantage and flexibility, but also further develop the organisation itself. In this context, the resources redundancy is understood as generating the resource surplus and considerably differentiating it. An enterprise which has resources in surplus is able to quickly adapt to variable environmental conditions, and this is because the enterprise has resources that can be used immediately. If the enterprise do not have resources in surplus, then in similar circumstances it must first acquire such resources, and the consequence is a delayed reaction to changes. Differentiating resources is an inevitable consequence of considerable environment variability and unpredictability to which the firm must respond. Having such configured resources with adequate redundancy, the firm is capable to react quickly and effectively to the environmental conditions.

<sup>3</sup> J. Rokita, *Zarządzania strategiczne. Tworzenie i utrzymanie przewagi konkurencyjnej*, PWE, Warszawa 2005, s.140



Figure 2: Base model of the resource dependence theory in strategic management, modified to include resource redundancy.



Source: K. Olejczyk-Kita, *Redundancja zasobów jako narzędzie rozwoju przedsiębiorstwa*, [in:] *Zmiana warunkiem sukcesu. Przelamywanie barier rozwoju i wzrostu przedsiębiorstw*, J.Skalik (red.), PN UE we Wrocławiu, nr 219, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2011, p. 192

The resources redundancy is highly positive for the firm, however it has one fundamental and significant disadvantage, namely it is very expensive. To answer the question ‘How to reduce the cost of resources redundancy’ we can refer to A.K Koźmiński and W. Piotrowski who noted that the organisational resources include all things, people, information and financial means that an organisation has or may dispose of despite the fact that the organisation is not the owner of such resources.<sup>4</sup> It appears that the critical resources are those to which the firm has access and may use them but which are not the firm’s property. Therefore the fastest and the cheapest way to obtain such resources is to establish organisational networks.

### Availability of Resources of Global Networks

Barney notes that the resources and capabilities that are rare, permanent, immovable and hardly modifiable enable the firm to obtain economic rent.<sup>5</sup> As mentioned above, redundancy of such resources is very expensive, both in terms of obtaining and maintaining them. It seems this problem can be solved by establishing intra-organisational networks. Such configuration of a group of enterprises facilitates

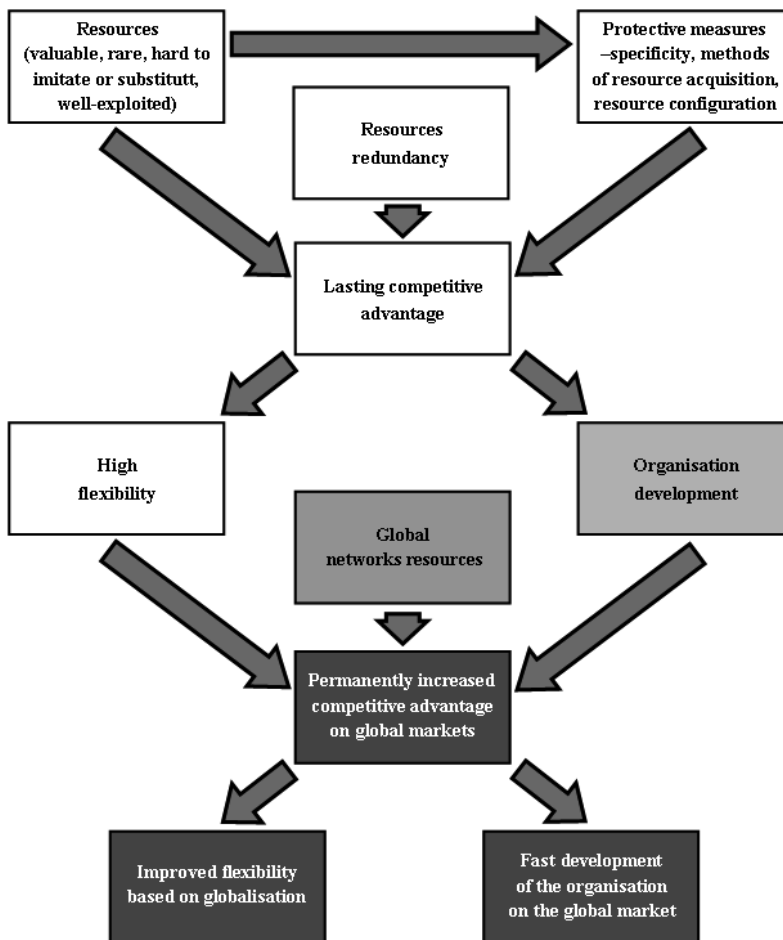
<sup>4</sup> A.K. Koźmiński, W. Piotrowski, *Zarządzanie – teoria i praktyka*, Wydawnictwo Naukowe PWN, Warszawa 1997, s. 105.

<sup>5</sup> Barney J.B., *Firm Resources and Sustained Competitive Advantage*, „Journal of Management”, vol.17, no.1, 1991

considerably the access to resources of multiple enterprises. The resources redundancy builds up, while there is no need to directly own specific resources by the enterprise. At the same time, the time needed to gather the resources from the environment is considerably reduced, sometimes down to zero.

Based on the resource-based theory model in strategic management, which has been modified with the resources redundancy and the global networks resources (Fig. 3), we increase the competitive advantage of the firm on global markets. Such effect is achieved specifically as the consequence of having access to multiple resources owned by the network members and considerable shortening of the length of time needed to gather resources. By properly configuring global networks, we are able to create a real conglomerate of combined redundancy of resources of multiple enterprises and, as a consequence, we can more effectively and perfectly multiply and differentiate resources available to the firm.

Figure 3: The resource-based theory model in strategic management, which has been modified with the resources redundancy and the networks resources, opened to global markets.



Source: K.Olejczyk-Kita, *Redundancja zasobów w oparciu o zasoby sieci globalnych odpowiedzią na globalizację gospodarki*, [in:] *Współczesne formy relacji międzyorganizacyjnych, współpraca-kooperacja-sieci*, R.Borowiecki, T.Rojek (red.), Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014, s.131-138

The resources redundancy based on global networks (Fig. 3) also improves flexibility of the organisation. The flexibility enables the enterprise to effectively and quicker adapt to market requirements. The competitive advantage builds up even quicker which positively affects the potential development of the organisation and facility of operation on global markets.

### **Do the rare resources exist in networks?**

When analysing the issue of redundancy of resources and networks, we must ask the following question: 'Do the rare resources really exist in networks? In this regard, the term 'rare resources' means the resources to which other firms have no access. Therefore the answer to such question is complex and ambiguous.

If we analyse the network in its entirety, then of course in network can exist rare resources that are hardly copyable and unavailable to the enterprises operating outside the network. In such circumstances the network members have a clear competitive advantage over other entrepreneurs. The network members who have access to such resources are more flexible operationally. The enterprises operating outside the network either have difficulty in accessing such resources or do not have any access at all.

The answer becomes more complex in a situation where some firms inside the network have rare and hardly copyable resources to which other network members may not have access. It is beyond any doubt that some enterprises being in the network have such rare and hardly copyable resources. Of course, such enterprises are highly demanded members of the network, and other enterprises would be keen to participate in such joint network. The enterprises have competitive advantage over other members of the network and may establish central nodes around which the network develops. They can be valuable enterprises that bring significant competitive advantage when entering the existing networks. In many cases such enterprises are introduced to the existing networks just because they own rare resources. In such situation there can be three cases where the firm owning rare resources:

- makes them available to all members of the network,
- makes them available to some members of the network,
- do not make them available to anyone.

In the first case, where the enterprise owning rare resources makes them available to all network members, the competitive advantage of the entire networks builds up. It often happens when members of the network include similar enterprises with demand for similar resources. Usually such networks are developed around the enterprise which has such resources, and that enterprise usually lead the entire network.

It is also possible that the enterprise owning rare resources makes them available only to some members of the network. Such situation takes place if not all network members need specific resources. In such case the competitive advantage of certain members of the network builds up, and the competitiveness of the network as a whole improves as well. There is however another case where potentially all members of the network could use the rare resources of the enterprise, but the enterprise makes them available only to selected firms. Such action results in increased competitive advantage of some enterprises participating in the network, but this does not translate into increased competitive advantage of the entire network. Finally, profits of some members of the network increase, however other members who do not get access to the resources lose their profits. Therefore the network does not become more competitive.

The last case is where a network enterprise owning rare resources does not make them available to other network members. In this situation the enterprise actually builds up a significant competitive advantage and increases profit, but this is at the expense of the entire network where serious problems arise. The real purpose of the network of enterprises is actually to achieve common goals by supporting each other. Reluctance to make resources available may result in disintegration of the network.

## Conclusion

It appears that enterprise networks improve the access to rare resources by increasing the redundancy of resources available to the enterprise. It seems that it is particularly effective to create networks in the centre/central node of which there is an enterprise that owns rare and hardly copyable resources and makes them available to other members of the network.

## Bibliography

1. Amit R., Schoemaker P.J.H., *Strategic Assets and Organizational Rent*, „Strategic Management Journal”, vol. 14, 1993.
2. Barney J.B., *Firm Resources and Sustained Competitive Advantage*, „Journal of Management”, vol.17, no.1, 1991
3. Koźmiński A.K., Piotrowski W., *Zarządzanie – teoria i praktyka*, Wydawnictwo Naukowe PWN, Warszawa 1997
4. Krupski R., Niemczyk J., Stańczyk-Hugiet E., *Koncepcje strategii organizacji*, PWE, Warszawa 2009, in: K. Obłój, *Pułapki teoretyczne zasobowej teorii strategii*, „Przegląd Organizacji” 2007, nr 5
5. Olejczyk-Kita K., *Redundancja zasobów jako narzędzie rozwoju przedsiębiorstwa*, [w:] *Zmiana warunkiem sukcesu. Przelamywanie barier rozwoju i wzrostu przedsiębiorstw*, J.Skalik (red.), PN UE we Wrocławiu, nr 219, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2011
6. Olejczyk-Kita K., *Redundancja zasobów w oparciu o zasoby sieci globalnych odpowiedzią na globalizację gospodarki*, in: *Współczesne formy relacji międzyorganizacyjnych, współpraca-kooperacja-sieci*, R.Borowiecki, T.Rojek (red.), Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014
7. Rokita J., *Zarządzania strategiczne. Tworzenie i utrzymanie przewagi konkurencyjnej*, PWE, Warszawa 2005

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# ORGANIZATIONAL CULTURE IN ENTERPRISES IN MULTI-CRITERIA EVALUATION IN THEORY AND PRACTICE

## *Summary*

*The herein paper presents the chosen problems of organizational culture in enterprises. With regard to the intricacy and variety of these issues the definition of the concept of organizational culture in enterprises was deemed to be justifiable in the context of management. The aim of the paper is to indicate the multi-criteria evaluation of organizational culture in enterprises, as well as to display the significance of the Positive Potential of Organization. Empirical research was also conducted in the sphere of the evaluation of the level of organizational culture in enterprises, as well as an illustration of the cultural aspects of the research results presented in literature.*

**Key words:** *organizational culture, multi-criteria, management.*

\* \* \*

## **Introduction**

Organizational culture in an enterprise constitutes the subject matter of systematic analysis of economic theory and practice. The notion and range of organizational culture involves evolutionary changes with regard to the expanding problems of identifying the cultural issues. In subject-related literature various concepts of organizational culture exist whose inspiration comes from the science of management. Their fundamentals determine the claim that the problems typical for management are associated with the essence of organizational culture and its impact on management. The afore-mentioned aspect leads to the fact that the key problem of the ontological conceptualization of organizational culture is in fact the issues of management. The resource approach first and foremost lies at their basis with a division into tangible and intangible resources. The correct management of resources with the appropriate personnel relations shapes the required level of organizational culture in enterprises. For the purpose of defining the required level of culture, it is however essential to conduct a quantification of the afore-mentioned processes. A multi-criteria approach is of great significance in terms of gauging the issues described. Its synthesis with the relationship matrix resulting from the adoption of a multitude

of dimensions of organizational culture is the basis of evaluating the behaviour of employees in the enterprise, as well as creating the required cultural patterns. The concept of the Positive Potential of Organization is particularly deserving of mention, which facilitates research and description of the positive results occurring in the enterprises.

### **Identification of organizational culture**

Organizational culture constitutes intricate and varied issues. In this notion, the cultural assumptions, systems of norms and values, patterns of behaviour, attitudes, as well as symbols adopted by the members of the organization are first and foremost illustrated. Furthermore, the indication that the organization may be a team of several people, a large enterprise or sector of the national economy is also significant.

By referring to the view of E. Stańczyk-Hugiet with regard to relational logic, it is possible to indicate organizational culture as a significant element of organizational routine. The author at hand correctly states that "...research relating to the cooperation of the organization in conditions of a network facilitate the perception of what the consequences of organizational routine are and their significance for the dynamics of the population and survival of the organization". Referring to the essence of the cultural problems presented by S. Przytuła is fully justifiable. With relation to the deliberations of the author at hand, "...organizational culture is thus the key to understanding the essence of the processes of management as the concepts and practices of management created in the enterprises of a given country cannot be copied without reflection and successfully applied elsewhere".

In various contexts, organizational culture may be indicated as the process of acculturation and cultural syncretism. In a more detailed interpretation of the afore-mentioned notions, it is possible to formulate the question of whether the potential threat of absolute impact of organizational culture on an employee exists as a result of implementing significant changes in the social and environmental conditions. Simultaneously, it is possible to undertake an attempt to provide the answer to the question of whether organizational culture should be treated as a form of the existence of a multi-cultural collage represented by the employees of the particular enterprise.

Organizational culture is also viewed in the context of an enterprise oriented towards processes. It is emphasized that in such situations, it is necessary to plan the activities shaping the cultural aspects, whereas subsequently modelling.

The fundamental fact of the process orientation is that of the growth in the significance of the client, who as the receiver of goods and services determines the parameters of their creation, while also shaping the requirements in the sphere of organizational culture and organizational creation. Within the framework of creativity, a compromise between generating new concepts and their useful dimension is essential.

This value creates the basis of communication and has an impact on the behaviour of employees via the creation of teamwork.

A similar character is expressed by the concept according to which, organizational culture is defined as an intricate set of values, norms and symbols. It is organizational culture which also encourages employees to accept and take account of the aims and values of the leaders of the organization. In culture, the expectations and achievements of employees are specified by means of the process of choosing selective incentives.

In organizational culture the significance of cooperation in a team is emphasized. Team culture is created on the basis of cooperation, trust and support. These values emerge in the increased level of teamwork. The employees appreciate the attention paid to the members of the team and the enterprise. The organizational culture of the team hence concentrates on collegiality and the pursuit of the creation of the atmosphere of trust and loyalty. The employees share their fears of substantive issues and also have an impact on the creation of the values of the team. These values help the involved employees to create organizational value. Thus, it is also possible to claim that collegiality and allocating professional

duties are the driving forces behind the creation of values by the employees in the organizational culture of the team.

Organizational culture may be difficult to perceive by the members of the group. Generally speaking, they are identified as substantive spheres for specialists and artifacts in the context of individual and team behaviour. Organizational culture determines the interactions of people in teams aiming to achieve the goals of the enterprise.

In conceptual deliberations in the sphere of organizational culture, it is justifiable to emphasize its impact on the effectiveness of activities.

In order to define the degree of influence the organizational culture has on the degree of effectiveness, it is necessary to conduct specific research with the aim of answering a multitude of key questions, particularly in the sphere of the relations of cooperation, potential of the organization, or even intra-organizational consequences. In particular, the financial dimension is significant.

### **Multi-criteria evaluation of organizational culture in enterprises**

With the aim of conducting further research, it is essential to adopt a multitude of criteria to facilitate the quantification of the organizational culture. In the processes of quantification with a justifiable methodology, multi-criteria assessment was adopted for the organizational culture in enterprises.

Ambiguity and multi-dimensionality of the methodological and substantive approach lead to the fact whereby the definition of the algorithm ensuring the order of the analysis and choice of organizational culture in enterprises are significant.

It would seem that in the first stage, it is necessary to determine the basis for the multi-criteria approach towards the evaluation of organizational culture. The concept of the Positive Potential of Organization was adopted for this purpose, which enabled the research and description of the positive results occurring in the enterprise. Organizational culture constitutes the factor that facilitates the achievement of the aims of an enterprise, while also creating values and the basis for ensuring the appropriate conditions of work for the employees of the enterprises at hand.

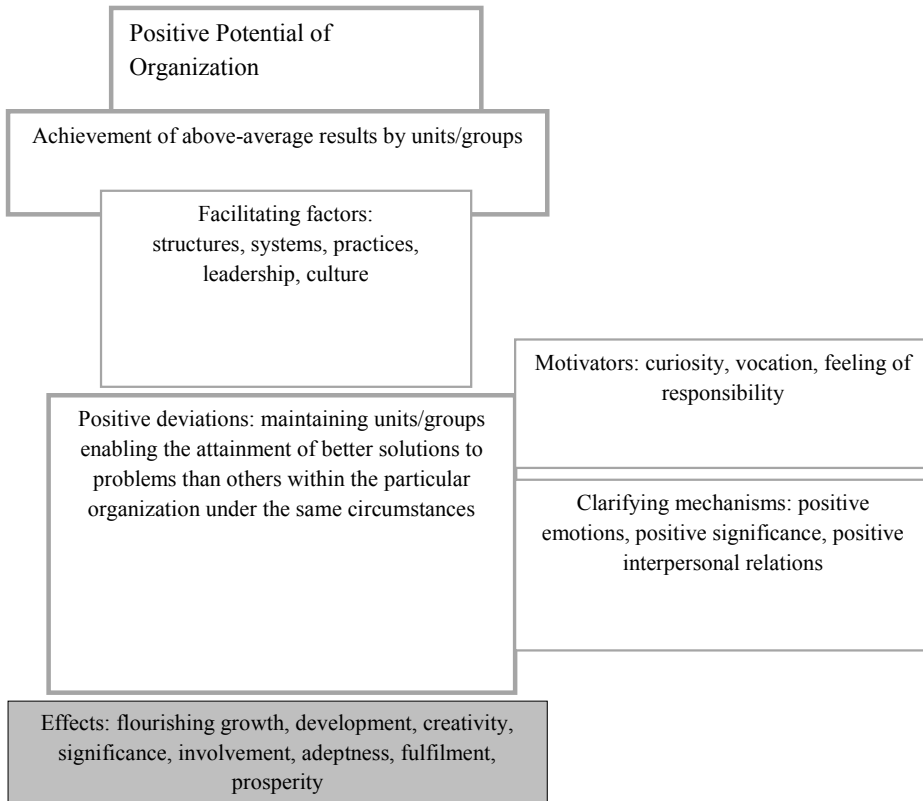
The Positive Potential of Organization is determined by the processes facilitating the achievement of above-average results. Of the results which ensure the realization of such a formulated aim, it is necessary to enumerate the structure and systems, together with practical activities. Furthermore, both leadership and the culture of the organization are significant. The achievement of the defined effects thus becomes realistic, among which first and foremost development, creativity and the involvement of employees and their teams are high up on the list.<sup>1</sup> From the viewpoint of the subject matter of deliberations, it is possible to distinguish the dimensions of organizational culture presented by A. Sopińska and P. Wachowiaka, which are as follows:<sup>2</sup>

- metaphor of the organization,
- aim of activity (the main one),
- fundamental task facilitating the achievement of success,
- algorithm integrating the organization,
- determinants of leadership,
- system of preferred values in managing employees,

<sup>1</sup> Rozkwitalska M., *Interakcje międzykulturowe w ujęciu pozytywnego potencjału organizacji*, Organizacja i Zarządzanie Nr 4/2015 s. 16

<sup>2</sup> Sopińska A., Wachowiak P., *Kultura organizacyjna a gotowość pracowników do dzielenia się wiedzą*. [w] *Wiedza i informacja w akceleracji biznesu*. Redakcja naukowa K. Perechuda, J. Chomiak-Orsa, Politechnika Częstochowska, Częstochowa 2015 s. 38. Całokształt wymiarów oraz kreowanych na ich podstawie relacji zasługuje na podkreślenie ich oryginalności i użyteczności.

Fig. 1. Essence of concept of Positive Potential of Organization



Source: Rozkwitalska M., *Interakcje międzykulturowe w ujęciu pozytywnego potencjału organizacji*, Organizacja i Zarządzanie Nr 4/2015 s. 16.

- motivational system for employees,
- preferences in the sphere of the features of employees.

Each of the afore-mentioned dimensions has been referred to the organizational culture of the following types: family, idea, competition and pyramid. The relationship matrix created in this manner describes the cultural features with the simultaneous indication of the behaviour of employees, particularly in terms of competitive activities. The entirety of the dimensions created on the basis of relations deserves to have its originality and usefulness emphasized. In the aspects of the quantification of the organizational culture, research of the gauging of the adjustment of the organization to inter-culturalism on the basis of the RIO coefficient (Ratio of Interculturalism of Organization) is deserving of mention. A distinction of the thematic module from the letters A to H has been carried out, encompassing by order nationality structure of groups of people, recruitment, professional adaptation, training and activity of an integrative nature, problems of internal and external communication, system of organization of work and activity in the sphere of ethics. In each module, several questions were asked by way of a questionnaire. Responses to these questions were placed against economic practice as presented in the reports of international organizations.



On the basis of the results of survey research, the conclusions relating to organizational culture were formulated by indicating that the changes in this area indicate a constant nature, which in turn leads to the lack of possibilities of results to appear in the short term. An enterprise is obliged to specify the cultural model that should be passed on to the managers and all the members of the teams. The correct implementation of the model causes it to "...become both formal, as well as informal mechanism of managing human resources"<sup>3</sup>.

Particular attention should be paid to the issues of the multi-criteria approach in terms of deliberations relating to organizational culture in the interpretative dimension of the concept of management which includes the following: sensemaking, enactment and management of meaning. In one of the afore-mentioned concepts, a reference is made to the essence of the dimensions of the notions presented and organizational culture is illustrated.<sup>4</sup> With relation to the notion of sensemaking, the author at hand justifies the adoption of the use of dimensions and symbols. In the vision of the organization, culture is then interpreted in the form of a core metaphor. An organization that is equalled to organizational culture emerges and maintains its "acts of faith" as people identify it as being too intrinsic and realize their own activity in accordance with the interpretations created. The analysis of the notion of enactment conducted requires its clarification. This term signifies "validation" and constitutes the conceptualization of a dynamic approach to organizational culture that is based on the anthropology of an organization. This evolutionary approach to sensemaking led to the emergence of the concept of the management of meaning defined as the management of meanings. The essence of this type of management is identified with the concept located in the centres of cultural trends. By generalising the problems of the multi-criteria approach, it is necessary to underline the possibilities of referring to the Positive Potential of Organization in the context of the dimensions of organizational culture in enterprises. It would seem to be apt to distinguish the chosen interpretative concepts of management, while displaying cultural aspects in order to emphasize the essence and nature of the relation of the multi-criteria processes of evaluation in the management of enterprises.

## **Practical aspects of organizational culture in enterprises**

The variety of problems, their conceptualization and ambiguity have led to the justification for undertaking attempts at more profound analysis relating to the organizational culture of enterprises. With regard to the variety of the problem in particular, the analysis was narrowed down to chosen issues. It was accepted that self-analysis was necessary, as well as a citation of the specified research results presented in literature. In order to illustrate the theoretical deliberations in the sphere of organizational culture a survey<sup>5</sup> was conducted among managers and employees of small and medium-sized enterprises of differentiated market sectors. In the structure of the analysed employees, the assumption was made that half of them were managers while the rest were employees was adopted. In total, 154 surveys were completed correctly. On this basis, it was possible to formulate the following conclusions: a positive assessment was acquired in the order of the numbers of responses on the issue of the motivation of managers (72), the importance and justification of the aims set out, carried out by managers (64) and employees (58). A similar level was acquired in terms of responses in the sphere of the assessment of the initiatives of employees (58, level of innovativeness (52), while also the motivation of employee teams (51) and individual employees (50). A multitude of analysed processes were separately evaluated by the managers and employees.

<sup>3</sup> Czaińska K., *Czynniki kształtujące kulturę organizacyjną przedsiębiorstw wielonarodowościowych*, Uniwersytet A. Mickiewicza, Poznań 2013 s. 248

<sup>4</sup> Sułkowski Ł., *Interpretatywne koncepcje zarządzania – sensemaking, enactment oraz management of meaning*, Przegład Organizacji 12/2012 s. 4

<sup>5</sup> The survey was prepared on the basis of: T.G. Cummings, Ch.G. Worley, *Organization Development & Change*, USA 1997 p. 228,229.

Table 1. Layout of results of survey

Questions	Positive assessment	Negative assessment	No opinion
1. Evaluation of level of validity and justification of aims of enterprise			
– by managers	64	27	13
– by employees	58	31	15
2. Evaluation of initiatives of employees	58	31	14
3. Evaluation of managerial decisions with regard to employee initiatives	43	41	20
4. Evaluation of level of innovativeness of enterprise	52	48	4
5. Evaluation of methods of sharing knowledge	31	36	17
6. Motivation in realization of aims of enterprise			
– management	72	28	4
– employee teams	51	49	4
– individual employees	50	49	5
7. Evaluation of level of communication			
– between management and employees	38	52	14
– between employees of a team	41	52	11
8. Evaluation of level of trust			
– between management and employees	36	61	7
– in team of employees	38	50	16
9. Evaluation of methods of resolving conflicts in employee teams	41	42	21
10. Evaluation of level of organizational culture in enterprise	63	29	11

Source: Self-analysis

– negative assessment was distinguishable by: level of trust between the management and employees (61) and in the team of employees (50). A similar negative assessment related to the level of communication between the management and employees (52) and between the employees of teams (52). With relation to the afore-mentioned results, it is possible to underline the cause and effect relations occurring in relations of trust and social communication. The aforesaid results of empirical research are characteristic of the organizational culture of the analysed enterprises. In the summative question in the sphere of the level of organizational culture it is necessary to underline the positive assessment (63) with relation to the negative (29).

With the aim of checking whether the distribution acquired in the research specified by variables is not random, the chi-square independence test was conducted. The risk of making an error of I degree was assumed at the level of  $p < 0,05$ . In Table 1, the values of the chi-square and p statistics are presented for each variable analysed. Both positive and negative responses were taken into account in the research.

Table 2. Value of chi-square statistics and p for each variable analysed

Relation	Chi-square statistics	P value
<b>Question 1</b>	<b>12.3267</b>	<b>.002105</b>
<b>Question 6</b>	<b>0,3432</b>	<b>.01123</b>
<b>Questions 9 and 10</b>	<b>6.5887</b>	<b>.010263</b>
Questions 2 and 4	3.3567	.066934
Question 8	0.708	.400115
Question 7	0.0648	.799123
Questions 4 and 5	0.5272	.467801
Questions 2 and i 3	3.475	.062303
Question 1	0.5488	.458813
Questions 2 and i 5	<b>5.5724</b>	<b>.018246</b>
Questions 2 and 9	<b>4.3727</b>	<b>.036518</b>
Questions 2 and 10	0.2236	.636298
Questions 3 and 4	0.012	.912844
Questions 3 and 5	0.3613	.547789
Questions 3 and 9	0.0537	.816777
Questions 3 and 10	<b>5.4784</b>	<b>.019253</b>
Questions 4 and 9	0.1229	.725909
Questions 4 and 10	<b>5.4166</b>	<b>.019947</b>
Questions 5 and 9	0.1454	.702956
Questions 5 and 10	<b>7.9123</b>	<b>.00491</b>

Source: <http://www.socscistatistics.com/tests/chisquare/Default2.aspx>

The highlighted values signify that the relation of the analysed variables is significant from a statistical viewpoint. These relations have been described in detail below. With the aim of assessing the strength and direction of the relation, the Pearson's  $r$  coefficient was also calculated. In the case of umpteen variables analysed only seven were identified where the type of evaluation of one variable has an impact on the type of evaluation of the second one.

Table 3. Distribution of evaluation between position and assessment of significance of aims

Evaluation of level of significance and justification of aims of enterprise	Positive assessment	Negative assessment
by management	64	27
by employees	58	31

Source: Self-analysis

The chi-square statistics amounted to 0,3432. The p value amounted to .01123 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the position and the evaluation of motivation in terms of the realization of the aims of the entity.

The Pearson's r coefficient amounted to 0,9930 and this signifies a very strong positive correlation that indicates a positive assessment of the validity of the aims by the management is accompanied by the positive assessment by the employees.

Table 4. Distribution of evaluation between position and assessment of motivation in realization of aims

<b>Motivation in realization of aims of enterprise</b>	<b>Positive assessment</b>	<b>Negative assessment</b>
management	72	28
employee teams/ individual employees	51	49

Source: Self-analysis

The chi-square statistics amounted to 12.3267. The p value amounted to .002105 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the position and the evaluation of motivation in terms of the realization of the aims of the entity.

The Pearson's r coefficient amounted to  $-0,9249$  and this signifies a very strong negative correlation that indicates that the more frequent positive assessment by the management is seldom matched by a positive assessment by the employee teams or individual employees.

Table 5. Distribution of evaluation between assessment of methods of resolving conflicts and level of organizational culture

<b>Questions 9 and 10</b>	<b>Positive assessment</b>	<b>Negative assessment</b>
Evaluation of methods of resolving conflicts in employee teams	41	42
Evaluation of level of organizational culture in enterprise	63	29

Source: Self-analysis

The chi-square statistics amounted to 6.5887. The p value amounted to .010263 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the evaluation of the methods of resolving conflicts and the evaluation of the organizational culture.

The Pearson's r coefficient amounted to 0,9251 and this signifies a very strong positive correlation. The positive assessment relating to the methods of resolving conflicts is met with positive assessment in the sphere of the level of organizational culture.

Table 6. Distribution of evaluation between assessment of methods of resolving conflicts and level of organizational culture

<b>Questions 2 and 9</b>	<b>Positive assessment</b>	<b>Negative assessment</b>
Evaluation of employee initiatives	58	31
Evaluation of methods of resolving conflicts in employee teams	41	42

Source: Self-analysis

The chi-square statistics amounted to 4.3727. The p value amounted to 0.036518 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the evaluation of the initiatives of the employees and the evaluation of the methods of resolving conflicts in employee teams.

The Pearson's r coefficient amounted to 0,9493 and this signifies a very strong positive correlation. The positive assessment of the initiatives of the employees is matched by a positive assessment of the methods of resolving conflicts.

Table 7. Distribution of evaluation between assessment of initiatives of employees assessment of methods of sharing knowledge

<b>Questions 2 and 5</b>	<b>Positive assessment</b>	<b>Negative assessment</b>
Evaluation of initiatives of employees	58	31
Evaluation of methods of sharing knowledge	31	36

Source: Self-analysis

The chi-square statistics amounted to 5.5724. The p value amounted to 0.018246 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the assessment of the initiatives of the employees and the assessment of the methods of sharing knowledge.

The Pearson's r coefficient amounted to 0,9326 and this signifies a very strong positive correlation. A positive assessment of the initiatives of the employees is unequivocal with the positive assessment of the methods of sharing knowledge.

Table 8. Distribution of evaluation between assessment of initiatives of employees assessment of methods of sharing knowledge

<b>Questions 3 and 10</b>	<b>Positive assessment</b>	<b>Negative assessment</b>
Evaluation of managerial decisions with regard to employee initiatives	43	41
Evaluation of level of organizational culture in enterprise	63	29

Source: Self-analysis

The chi-square statistics amounted to 5.4784. The p value amounted to .019253 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the assessment of the managerial decisions in terms of the initiatives of the employees and the evaluation of the level of organizational culture.

The Pearson's r coefficient amounted to 0,9372 and this signifies a very strong positive correlation. The positive managerial opinions in the sphere of employee initiatives is met by a positive evaluation of the level of organizational culture in the enterprise.

Table 9. Distribution of evaluation between assessment of initiatives of employees assessment of methods of sharing knowledge

<b>Questions 4 and 10</b>	<b>Positive assessment</b>	<b>Negative assessment</b>
Evaluation of level of innovativeness of enterprise	52	48
Evaluation of level of organizational culture in enterprise	63	29

Source: Self-analysis

The chi-square statistics amounted to 5.4166. The p value amounted to .019947 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the assessment of the level of the innovativeness of the enterprise and the evaluation of the level of its organizational culture.

The Pearson's r coefficient amounted to 0,9436 and this signifies a very strong positive correlation. Together with the positive opinion of the level of the innovativeness, there is also an increase in the positive perception of organizational culture.

Table 10. Distribution of evaluation between assessment of initiatives of employees assessment of methods of sharing knowledge

<b>Questions 5 and 10</b>	<b>Positive assessment</b>	<b>Negative assessment</b>
Evaluation of methods of sharing knowledge	31	36
Evaluation of level of organizational culture in enterprise	63	29

Source: Self-analysis

The chi-square statistics amounted to 7.9123. The p value amounted to .00491 and is less than 0,05, which means that the result is significant from a statistical point of view. Hence, it is necessary to adopt the alternative hypothesis of dependency between the assessment of the methods of sharing knowledge and the assessment of the level of its organizational culture.

The Pearson's r coefficient amounted to 0,9067 and this signifies a very strong positive correlation. The high level of activity of sharing knowledge is met with a favourable opinion in terms of the level of organizational culture.

## Proposed indicators of evaluation of organizational culture

On the basis of the significant relations, three key indicators were prepared in terms of the level of organizational culture. The value of the relation greater than 1 signifies a greater proportion in terms of the positive assessment with relation to the negative assessment. For each indicator identified below, the value should exceed 1.

<b>Level of realization of aims =</b>	$\frac{\text{Number of assessments with positive motivation with motivation and significance of aims}}{\text{Number of assessments with negative motivation with motivation and significance of aims}} > 1$
<b>Level of organizational culture =</b>	$\frac{\text{Number of positive assessments ranging from resolving conflicts, undertaking initiatives, sharing knowledge, level of innovativeness}}{\text{Number of negative assessments ranging from resolving conflicts, undertaking initiatives, sharing knowledge, level of innovativeness.}} > 1$
<b>Initiatives for improving organizational culture relations =</b>	$\frac{\text{Number of positive assessments ranging from methods of sharing knowledge to resolving conflicts}}{\text{Number of negative assessments ranging from sharing knowledge to resolving conflicts.}} > 1$

Table 11. Results of indicators in accordance with the given surveys

Motivation in realization of aims	1,60
Level of organizational culture	1,13
Initiatives for improving organizational culture relations	0,92

Source: Self-analysis

The results of the relations indicate the positive perception of the chosen aspects of the organizational culture in the analysed enterprise. Each of these indicators exceeds the unit value by indicating the prevalence of positive assessments with relation to the number of negative assessments. Great motivation to realise the assumed goals of the enterprise is observed, as well as the generally favourable picture of organizational culture. Simultaneously, the initiative of improving the employee relations is not

satisfying, both in terms of resolving conflicts as well as in the desire to share knowledge, which both require further improvement.

Assessment of the motivation in terms of the realization of the aims of the enterprises results from the level of the hierarchy of the organization where opinions significantly differ. The positive assessment by the management is usually met with the negative assessment on the part of the employee teams or individual employees. Together with the positive assessment of the methods of resolving conflicts, undertaking initiatives by the employees, activity in sharing knowledge and the high level of innovativeness, a favourable assessment of the level of organizational culture in enterprises is being observed. Simultaneously, a favourable assessment of the employee initiatives is usually met with a positive assessment of the methods of resolving conflicts and methods of sharing knowledge. In the case of the analysed entity, despite the generally positive assessments of the indicated aspects of organizational culture, further improvement requires the enhancement of interpersonal relations with the effective management of conflicts, as well as the desire to share knowledge and skills.

From various research contexts, organizational culture is worth emphasizing in terms of building the feeling of a community. With the integration of the employees the enterprise may create its mission and aims that arise from the need to achieve success more efficiently. The importance of the problem facilitates the adaptation of the cultural norms and behaviour that lead to the achievement of the appropriate level of values. The afore-mentioned dependencies have been specified on the basis of analysis of economic activity in Poland and Portugal. By way of conclusion, it has been claimed that “despite several differences between Polish and Portuguese organizational cultures, there is evidence to the fact that both of these countries may cooperate with each other effectively”.<sup>6</sup> Organizational culture is acknowledged to be research issues that facilitate further cooperation by means of the realization of common goals that ensure the effective activity of the enterprise. In empirical research in the sphere of organizational culture, an OCAJ questionnaire was applied (Organizational Culture Assessment Instrument). On the basis of the research results relating to the types of organizational culture, it was claimed that the majority of the organizations are characterized by the culture of hierarchy, while subsequently the market and clan. To a much lesser extent the culture of adhocracy is represented.<sup>7</sup> The types of organizational culture listed refer to the cultural dimensions presented in the previous point of the herein paper. Interesting research results have been illustrated in the sphere of the motivational systems of SMEs in the construction sector of Poland and Germany. The realization of international cooperation is more motivating in the German enterprises than in the Polish ones. The barriers against cooperation are prevalent in the assessment of the Polish enterprises. The German enterprises claim that cooperation prevails over the barriers.<sup>8</sup> An illustration of the processes of the organizational culture in enterprises is the system of building trust and cooperation in Polskich Sieciach Elektroenergetycznych SA Oddział (Polish Electric Power Network) in Radom. As a result of the code of ethics implemented in the afore-mentioned enterprise the organizational culture was evidenced, thus creating a friendly vibe among the employees. The appropriate organizational culture ensures a positive image of the enterprises on the market.<sup>9</sup> To sum up, in practical situations the role of organizational culture in enterprises has

<sup>6</sup> Piotrowska K., *Analiza porównawcza kultury organizacyjnej polskich i portugalskich przedsiębiorstw*, Organizacja i Zarządzanie. Kwartalnik naukowy Nr3 (31) Politechnika Śląska Gliwice 2015, s. 144

<sup>7</sup> *The research results were presented by the following team of authors: M. Łaguna, E. Purc, W. Razmus, M. Błaszczuk, K. Gawrońska, Podejmowanie szkoleń a kultura i klimat organizacyjny*, Organizacja i Kierowanie Nr 2(167) 2015 s. 147-151

<sup>8</sup> Czerwińska-Lubczyk A., Michna A., Schleuder F., Walther M., *The comparison of Poland and German Contruction Companies In The Contex of Chosen Aspects of Inter-Organizational Cooperation*. Zeszyty Naukowe Politechniki Śląskiej, Organizacja i Zarządzanie nr 80, Gliwice 2015, s. 83

<sup>9</sup> Kogut J., *Kultura organizacyjna na przykładzie przedsiębiorstwa branży energetycznej*, Zeszyty Naukowe Politechniki Częstochowskiej, Zarządzanie Nr 18 Częstochowa 2015 s. 88.



been confirmed, as well as the fact that the intricacy of cultural activity has been indicated. Hence, it is possible to acknowledge that this is an important premise for conducting further research in the area of the organizational culture in enterprises.

## Conclusion

Theoretical deliberations in the sphere of organizational culture indicates its significant role in enterprises. The concept of the Positive Potential of Organization on the one hand may be defined as the inspiration for activities on the part of the enterprises, while on the other hand it may be defined as the template for the multi-criteria approach to evaluation in the area of organizational culture. Empirical self-analysis has been conducted, as well as the research results referred to constituted an attempt to verify the evaluation of organizational culture in enterprises in terms of chosen aspects. The results of the survey research on the managers and employees of SMEs have become the basis for the formulation of conclusions both of a positive and of a negative nature. The positive side referred to the identification of employees with the aims of the enterprises, as well as the motivation and possibilities of the realization of the initiatives of the personnel resources. In terms of the negative side, there was a prevalence of the relations of trust and the level of communication in enterprises. The response to the summative question however indicates the positive assessment of the level of organizational culture in enterprises.

Furthermore, in the assessments references were made to the inter-cultural interactions arising from comparisons made between the Polish and Portuguese employee teams, as well as between the Polish and German construction enterprises. The afore-mentioned analysis confirms that in spite of the cultural differences in evidence, cooperation is evaluated as positive.

## Bibliography

1. Brajer-Marczak R., *Aspekty kulturowe e przedsiębiorstwie zorientowanym na procesy*. [w] *Nowe kierunki w zarządzaniu przedsiębiorstwem – wiodące orientacje*, Redaktorzy naukowci J. Lichtarski, S. Nowosielski, G. Osbert-Pociecha, E. Tabaszewska-Zajbert. Prace naukowe UE we Wrocławiu Nr 340. Wrocław 2014
2. Bratnicka K., *Fundamenty inteligentnego rozwoju przedsiębiorstwa: spojrzenie interakcjonistyczne*, Studia i prace. Kolegium Zarządzania i Finansów Zeszyt Naukowy 149, SGH Warszawa 2016
3. Cummings T.G., Worley Ch.G., *Organization Development & Change*, USA 1997
4. Czaińska K., *Czynniki kształtujące kulturę organizacyjną przedsiębiorstw wielonarodowościowych*. Uniwersytet A. Mickiewicza Poznań 2013
5. Czerwińska-Lubczyk A., Michna A., Schleuder F., Walther M., *The comparison of Poland and German Contruction Companies In The Contex of Chosen Aspects of Inter-Organizational Cooperation*, Zeszyty Naukowe Politechniki Śląskiej, Organizacja i Zarządzanie nr 80, Gliwice 2015
6. Kogut J., *Kultura organizacyjna na przykładzie przedsiębiorstwa branży energetycznej*, Zeszyty Naukowe Politechniki Częstochowskiej, Zarządzanie Nr 18 Częstochowa 2015
7. Lee M. T., Raschke R. L., St. Louis R., *Exploiting organizational culture: Configurations for value throughknowledge worker's motivation*, Journal of Business Research 69 (2016)
8. Łaguna M., Purc E., Razmus W., Błaszyk M., Gawrońska K., *Podejmowanie szkoleń a kultura i klimat organizacyjny*, Organizacja i Kierowanie Nr 2(167) 2015
9. Nogalski B., Szpitter A., *Kultura organizacyjna w zarządzaniu organizacją wielokulturową*. [w] JB. Mikula (red) *Historia i perspektywy nauk o zarządzaniu*, Uniwersytet Ekonomiczny Kraków 2012
10. Otola I., Tylec A., *Spoleczna odpowiedzialność biznesu a wyniki finansowe przedsiębiorstw*, Zarządzanie Nr 24 Zeszyty Naukowe Politechniki Częstochowskiej, Częstochowa 2016

11. Pietrasieński P., *Silicon Valley Acceleration Centre – A Case study of the first Polish Governmental Bridge Organization*, Przegląd Organizacji 8/2013
12. Piotrowska K., *Analiza porównawcza kultury organizacyjnej polskich i portugalskich przedsiębiorstw*. Organizacja i Zarządzanie. Kwartalnik naukowy Nr3 (31) Politechnika Śląska Gliwice 2015
13. Przytuła S., *Problemy wielokulturowości w korporacjach międzynarodowych*. Problemy Zarządzania vol 9 nr 4 Uniwersytet Warszawski K. Czaińska: Czynniki kształtujące kulturę organizacyjną przedsiębiorstw wielonarodowościowych. Uniwersytet im. A. Mickiewicza w Poznaniu. Seria Nauki Ekonomiczne Nr 24, Poznań 2013
14. Rozkwitalska M., *Interakcje międzykulturowe w ujęciu pozytywnego potencjału organizacji*, Organizacja i Zarządzanie Nr 4/2015
15. Stańczyk-Hugiet E., *Rutyny organizacyjne a relacje współdziałania. Logika zależności*, Przegląd Organizacji 12/2016
16. Sopińska A., Wachowiak P., *Kultura organizacyjna a gotowość pracowników do dzielenia się wiedzą*. [w] *Wiedza i informacja w akceleracji biznesu*. Redakcja naukowa K. Perechuda, J. Chomiak-Orsa, Politechnika Częstochowska, Częstochowa 2015 Całokształt wymiarów oraz kreowanych na ich podstawie relacji zasługuje na podkreślenie ich oryginalności i użyteczności.
17. Sułkowski Ł., *Kultura akademicka. Koniec utopii*, PWN, Warszawa 2016
18. Sułkowski Ł., *Interpretatywne koncepcje zarządzania – sensemaking, enactment oraz management of meaning*. Przegląd Organizacji 12/2012
19. Valmohammadi C., Roshanzamir S., *The guidelines of improvement: Relations among organizational culture, TQM and performance* Int. J. Production Economics 164(2015)

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# PROCESS AND ENTERPRISE RISK MANAGEMENT IN CONTEXT ANALYSIS

## *Summary*

*A business and process environment in era of globalization are rapidly changing. It has impact on design and realization of business processes related to their performance and related risks. It is main subject of the paper. The purpose of the paper is to analyze business risks and their impact on business performances. The goal of the paper is to define methodology for deployment of enterprise risks on business processes and their outcomes and results. For achieving this goal authors use proposed methodology based on methods of process and enterprise modeling, risk modeling and performance modeling. Proposed methodology is verified on the group of enterprises in automotive sector.*

*Key word: process, risk, enterprises, context analysis, integration, model, verification.*

\* \* \*

## **Introduction**

In era of globalization business is changing rapidly as answer on fast changes of environment. In the 21st century competitiveness arises and business solutions are more vulnerable and related to risks<sup>1,2,3</sup>. In this period are emphasized new paradigms as risks, vulnerability, resiliens and business

<sup>1</sup> Nilsson, A. G., Tolis, C., & Nellborn, C. (1999). *Perspectives on business modelling: understanding and changing organisations*. In *Perspectives on Business Modelling*, 1-10. Springer Berlin Heidelberg.

<sup>2</sup> Lathrop, J. and Ezell, B. (2017). *A systems approach to risk analysis validation for risk management*. Safety Science.

<sup>3</sup> Jin, X.H. and Zhang, G. (2011). Modelling optimal risk allocation in PPP projects using artificial neural networks. *International journal of project management*, 29(5), 591-603

continuity<sup>4,5,6</sup>. Relations among risks and business performances are recognized and analyzed using different approaches and methods<sup>7,8</sup>.

An enterprise risk depends on business context<sup>9,10</sup>. It is different kind of business are different business processes and related risks. On this way starting position for analysis of enterprise risk is context analysis. In next step enterprise risk has to be deployed on business processes and using appropriate methods to harmonize with risks of business processes<sup>11,12</sup>. Using this methodology is possibly to connect business process performances and risks with enterprise performances and related risks. A key factor in this methodology is context analysis.

The purpose of the paper is to analyze business (enterprise) risks and their impact on business performance, based on business process risks. This approach is combination of top-down and bottom-up flows. In middle layer is business (enterprise) risks.

The goal of the paper is to define and test methodology for deployment of enterprise risks and performances on business processes and vice versa. For achieving this goal authors are used different approaches and methods, as *Hoshin Kanri*<sup>13</sup>, enterprise modeling<sup>14,15</sup>, project modeling<sup>16,17</sup>, process modeling<sup>18,19</sup> and performance modeling<sup>20</sup>. This methodology is verified on the group of enterprises in automotive sector.

The paper is organized in five chapters. After introduction (chapter 1) in second chapter is presented background with used approaches and methods as base for developing out approach and methodology.

In the third chapter is presented basic elements and our approach to context analysis. The fourth chapter covers model of enterprise risk and process risks. In fifth chapter is presented model of integration context analysis with enterprise and process risks.

<sup>4</sup> Pickett, K. S. (2005). *Auditing the risk management process*. John Wiley & Sons.

<sup>5</sup> Jordanova, P., Nefedova, Y. and Stehlik, M. (2017). Risk process approximation with mixing. *Applied Mathematical Modelling*, 41, 285-298

<sup>6</sup> Park, S., Lee, T.E. and Sung, C.S. (2010). A three-level supply chain network design model with risk-pooling and lead times. *Transportation Research Part E: Logistics and Transportation Review*, 46(5), 563-581.

<sup>7</sup> Jin, X.H. and Zhang, G. (2011). Modelling optimal risk allocation in PPP projects using artificial neural networks. *International journal of project management*, 29(5), 591-603

<sup>8</sup> Saleh, M.S. and Alfantookh, A. (2011). A new comprehensive framework for enterprise information security risk management. *Applied computing and informatics*, 9(2), 107-118.

<sup>9</sup> Van Looy, A., De Backer, M., Poels, G. and Snoeck, M. (2013). Choosing the right business process maturity model. *Information & Management*, 50(7), 466-488.

<sup>10</sup> Rozzani, N., Mohamed, I.S. and Yusuf, S.N.S. (2017). Risk management process: Profiling of Islamic microfinance providers. *Research in International Business and Finance*, 41, 20-27.

<sup>11</sup> Chang, J. F. (2016). *Business process management systems: strategy and implementation*. Auerbach Publication, Taylor and Francis Group

<sup>12</sup> Grant, R. (2010). *Contemporary strategy analysis*. Cambridge, Mass., USA: Blackwell

<sup>13</sup> Chao, L.P. and Ishii, K. (2004). Project quality function deployment. *International Journal of Quality & Reliability Management*, 21(9), 938-958.

<sup>14</sup> Weidlich, M. and Mendling, J. (2012). Perceived consistency between process models. *Information Systems*, 37(2), 80-98.

<sup>15</sup> Cho, C. and Lee, S. (2011). A study on process evaluation and selection model for business process management. *Expert Systems with Applications*, 38(5), 6339-6350.

<sup>16</sup> Van de Water, H. and de Vries, J. (2006). Choosing a quality improvement project using the analytic hierarchy process. *International Journal of Quality & Reliability Management*, 23(4), 409-425.

<sup>17</sup> Thompson, A. & Strickland, A. (2003). *Strategic management*. McGraw-Hill

<sup>18</sup> David, F. (2011). *Strategic Management: Concepts and Cases* (7th ed.). New Jersey: Prentice Hall.

<sup>19</sup> Collins, B. & Huges, E. (1993). *Management by policy*. Milwaukee, Wis.: ASQC Quality Press.

<sup>20</sup> Kay, J. (2001). *Foundations of Corporate Success: How Business Strategies Add Value*. London, UK: Oxford University Press.

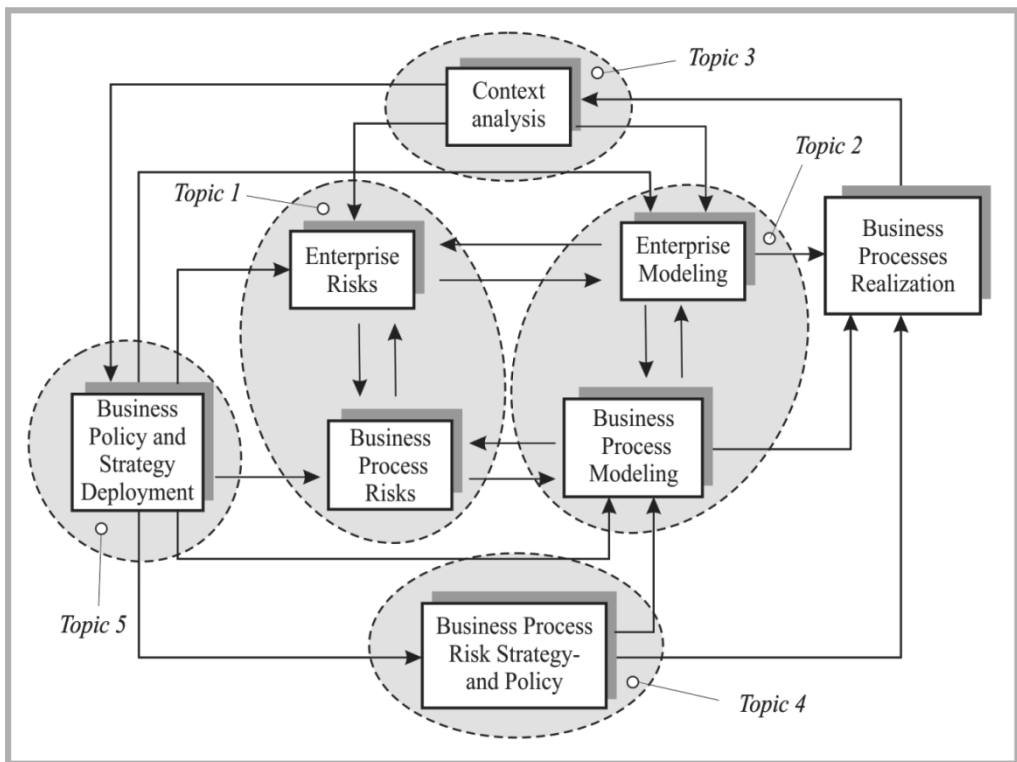
## Background

The subject of the paper is related to five interrelated topics, i.e.: (1) enterprise-and business process risks, (2) enterprise-and business process modeling, (3) context analysis, (4) business process risk strategy and policy, and (5) business policy and strategy deployment.

The first topic is emerging in last twenty years with rising a business uncertainty. An enterprise or corporate risks are unavoid factor for defining strategy, business goals and kinds of organizing a business processes. This problem also asized in supply chains. For purpose of the paper this topic is source for identyfng links with other topics, esspecially with risk strategy and context analysis.

An enterprise-and business process modeling is very broad topics. In last twenty five years it is analyzed from aspects of process approach<sup>21, 22, 23</sup>, ICT support<sup>24</sup>, business risks, etc. Using the results of used references authors define a base model for investigation presented in *figure 1*.

Figure 1: A link among topics of the paper



Source: Own study

<sup>21</sup> Arsovski, S. (2006). *Menadzment procesima*, Center for Quality, Faculty of Engineering, Kragujevac, Serbia  
<sup>22</sup> Arsovski, Z., Arsovski, S., Mirovic, Z., & Stefanovic, M. (2009). Simulation Of Quality Goals: A Missing Link Between Corporate Strategy and Business Process Management. *International Journal for Quality Research*, 3(4), 317-326.  
<sup>23</sup> Becker, J. (2003). *Process management*. Springer, Berlin  
<sup>24</sup> Arsovski, Z., Petrovic, D., Arsovski, S., & Pavlovic, A. (2012). Information systems for supply Chain management in automotive industry. *Technics Technologies Education Management*, 7(1), 342-353.

A context analysis is relative new topic. It is developed in area of change management, strategic management, and quality management<sup>25</sup>. With context analysis starts enterprise-and business process modeling, and defining business policy and strategy, as well as its deployment according to risks.

A business process risk strategy and policy is related to vulnerability<sup>26</sup>, resilience<sup>27, 28, 29, 30</sup>, and methods for risk modeling<sup>31, 32</sup>.

A business policy and strategy deployment is analyzed in strategy management<sup>33</sup> and quality management.

All of these topics are linked with business process realization using projects for process improvement<sup>34, 35, 36, 37</sup>.

## Context analysis

A context analysis is new request of ISO 9001:2015. In clause 4.1 context defined with statement organization shall determine external and internal issues that are relevant to its purpose and its strategic direction and that affect its ability to achieve the intended results of its quality management system.

The first request is related to understanding the needs and expectation of interested parties (clause 4.2). Using system approach these needs and expectations are presented as process in *figure 2*.

<sup>25</sup> ISO, E. (2015). 9001: 2015. <http://pihz-certyfikacija.pl/pn-en-iso-9001-2015>.

<sup>26</sup> Aleksic, A., Stefanovic, M., Tadic, D., & Arsovski, S. (2014). A fuzzy model for assessment of organization vulnerability. *Measurement*, 51, 214-223.

<sup>27</sup> Tadic, D., Aleksic, A., Stefanovic, M., Arsovski, S. (2014). Evaluation and Ranking of Organizational Resilience Factors by Using a Two Step Fuzzy AHP and Fuzzy TOPSIS, *Mathematical Problems in Engineering*, 2014, ISSN 1024-123X, ID 418085.

<sup>28</sup> Arsovski, S., Putnik, G., Arsovski, Z., Tadic, D., Aleksic, A., Djordjevic, A., Moljevic, A. (2015). Modelling and Enhancement of Organizational Resilience Potential in Process Industry SMEs, *Sustainability*, 7(12), 16483-16497.

<sup>29</sup> Aleksic, A., Stefanovic, M., Arsovski, S., Tadic, D. (2013). An assessment of organizational resilience potential in SMEs of the process industry, a fuzzy approach, *Journal of Loss Prevention in the Process Industries*, 26(6), 1238-1245.

<sup>30</sup> Arsovski, S., Arsovski, Z., Stefanovic, M., Tadic, D., Aleksic, A. (2017). Organisational resilience in a cloud-based enterprise in a supply chain: a challenge for innovative SMEs, *International Journal of Computer Integrated Manufacturing*, 30(4-5), 409-419.

<sup>31</sup> Stefanovic, M., Tadic, D., Arsovski, S., Pravdic, P., Abadic, N. and Stefanovic, N. (2015). Determination of the effectiveness of the realization of enterprise business objectives and improvement strategies in an uncertain environment. *Expert Systems*, 32(4), 494-506.

<sup>32</sup> Hosseini, S., Barker, K. and Ramirez-Marquez, J.E. (2016). A review of definitions and measures of system resilience. *Reliability Engineering & System Safety*, 145, 47-61.

<sup>33</sup> Sheridan, B. (1993). *Policy Deployment: The TQM Approach to Long-Range Planning*. Milwaukee, Wisconsin: Amer Society for Quality.

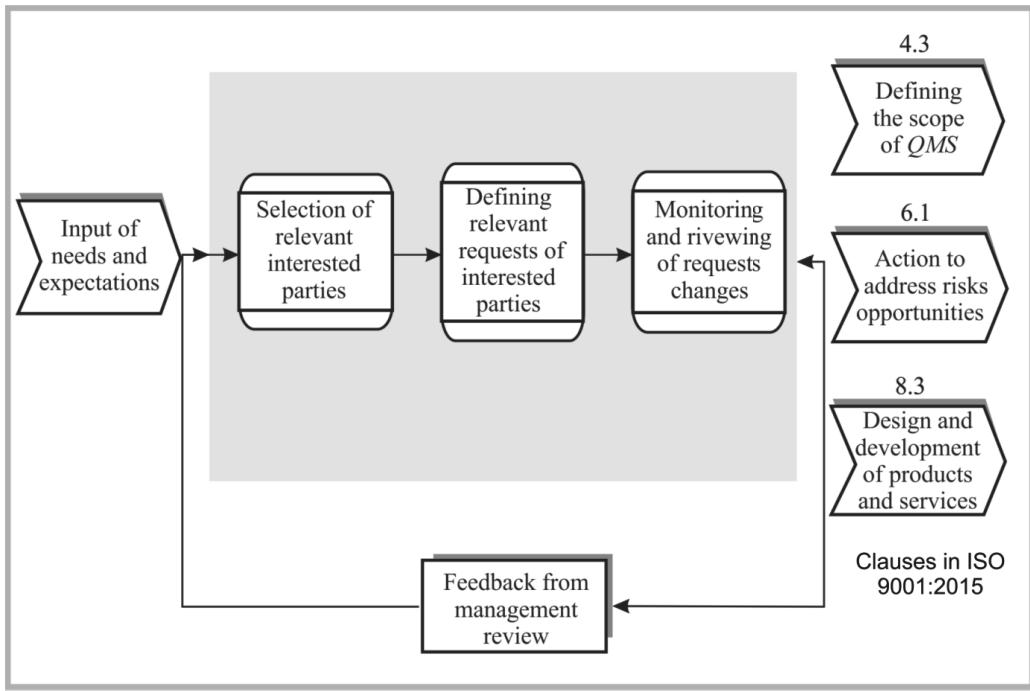
<sup>34</sup> Dvir, D., Ben-David, A., Sadeh, A. and Shenhar, A.J. (2006). Critical managerial factors affecting defense projects success: A comparison between neural network and regression analysis. *Engineering Applications of Artificial Intelligence*, 19(5), 535-543.

<sup>35</sup> Tadic, D., Gumus, A. T., Arsovski, S., Aleksic, A., & Stefanovic, M. (2013). An evaluation of quality goals by using fuzzy AHP and fuzzy TOPSIS methodology. *Journal of Intelligent & Fuzzy Systems*, 25(3), 547-556.

<sup>36</sup> Nestic, S., Stefanovic, M., Djordjevic, A., Arsovski, S., & Tadic, D. (2015). A model of the assessment and optimisation of production process quality using the fuzzy sets and genetic algorithm approach. *European Journal of Industrial Engineering*, 9(1), 77-99.

<sup>37</sup> Vukšić, V. B., Bach, M. P., & Popović, A. (2013). Supporting performance management with business process management and business intelligence: A case analysis of integration and orchestration. *International journal of information management*, 33(4), 613-619.

Figure 2: Understanding the needs and expectation of interested parties



Source: Own study

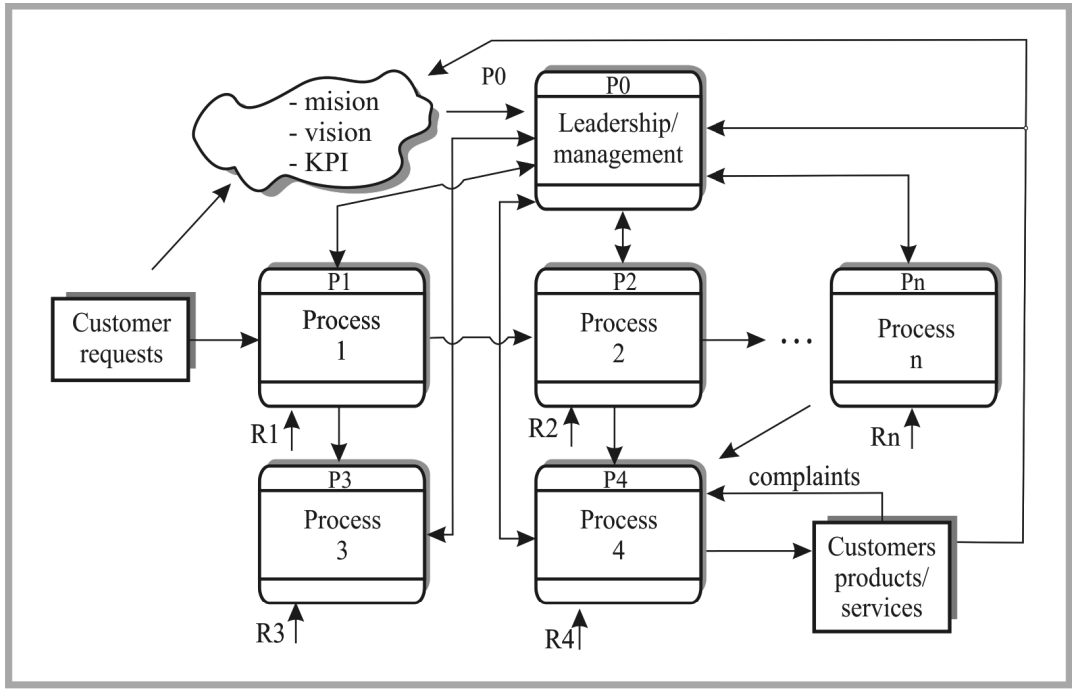
For the context analysis are included different interested parties as customers, users, suppliers, employees, managers, government, banks, partners, R&D organizations, universities, etc. Also, for different key processes and different business sectors, as well for different size of organizations are used different approach and methods for understanding the needs and expectations of interested parties. Most used approach is Porter approach with analysis of: (1) customers, (2) suppliers, (3) potential new competitors, (4) substitutes of products and rivalry and competitiveness in business area.

In next step organization has to determine the scope of quality management system (clause 4.3 in ISO 9001:2015). For it organization shall consider:

- external and internal issues referred in clause 4.1,
- requirements of relevant interested parties referred in clause 4.2, and
- products and services of us process approach with Business Process Management (figure 3), Balanced Score Cards – BSC (figure 3), etc.

In this process model organization starts with defined vision, mission, goals and Key Performance Indicators(KPI) defined by process leadership and management. Through this process is expected to fulfill planned level of indicators in customer and financial perspectives (figure 4). In this BSC map context analysis is in ground and in figure 4 it gives inputs for developing all perspectives.

Figure 3: Process identification for purpose of context analysis



Source: Own study

### Modeling of enterprise risk

A business modelling according<sup>38</sup> has three perspectives in:

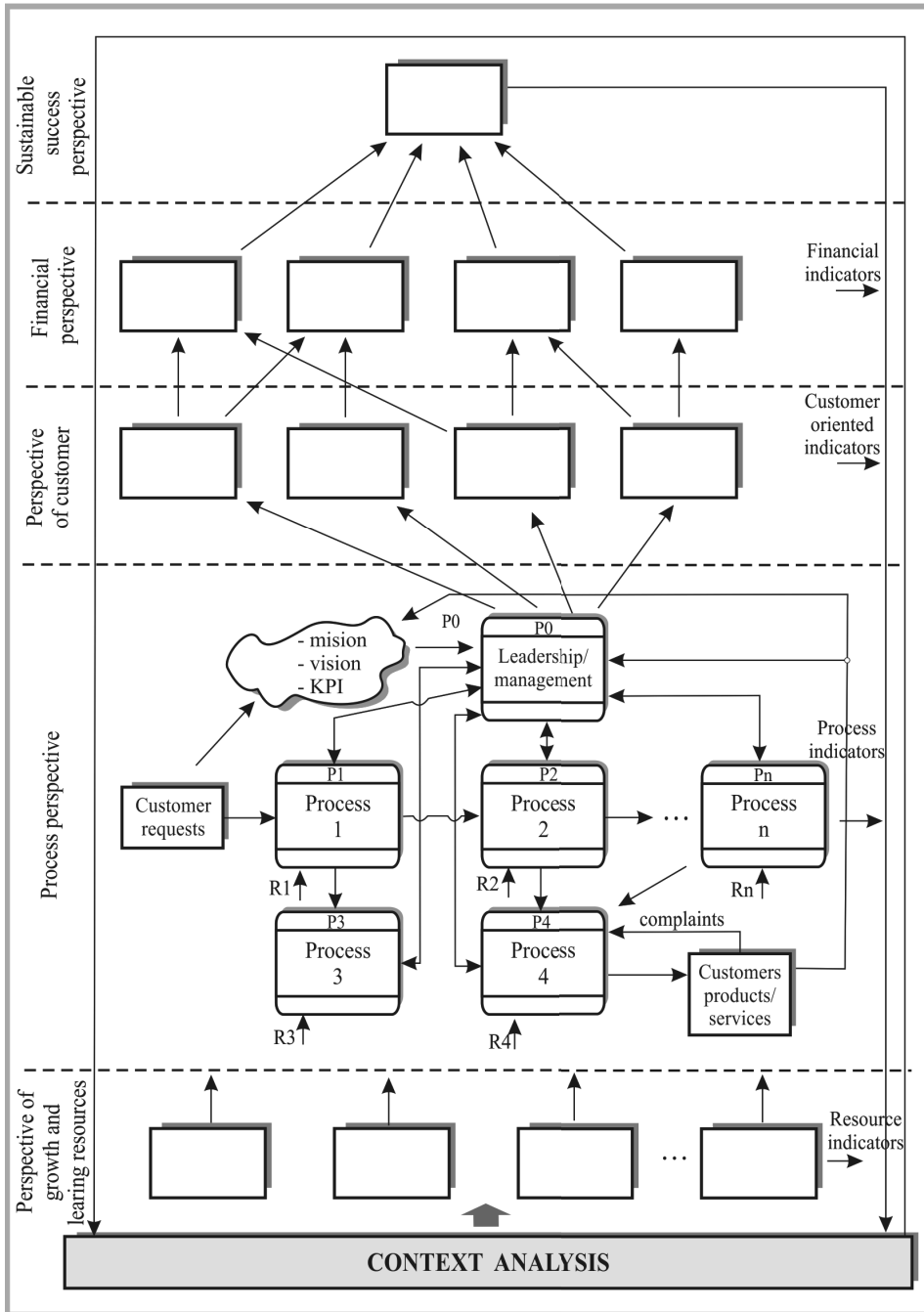
- strategic business modeling with business intentions and goals, market and customer processes, market resources, market legislation, and as connection a products and services to market,
- operational business modelling with last one, business processes, business objects (resources), business rules, and system services, and
- conceptual *ICT* modelling with last one *ICT* system processes.

For each perspective are related risks. A middle perspective can be described using process approach. In *figure 7* is presented model of process risks with connection with upper and down perspectives. In process model organization (enterprise) is defined as set of interconnected sub-processes/activities. In *figure 7* it is presented as forewer connected processes as parts of analyzed macro-process.

<sup>38</sup> Neely, A. (2002). *Business performance measurement*. Cambridge: Cambridge University Press



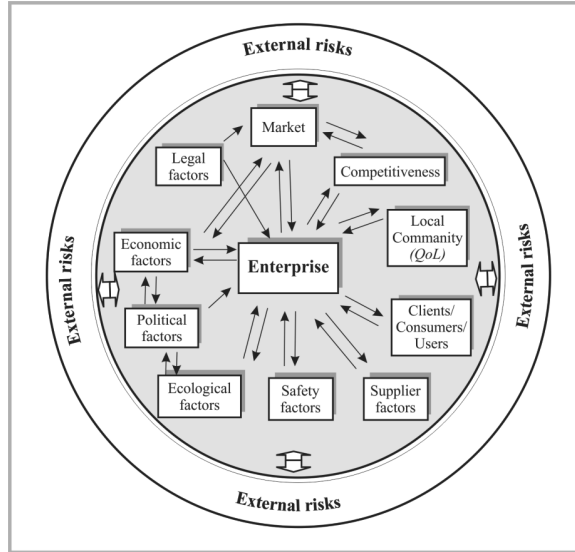
Figure 4: BSC map for context analysis



Source: Own study

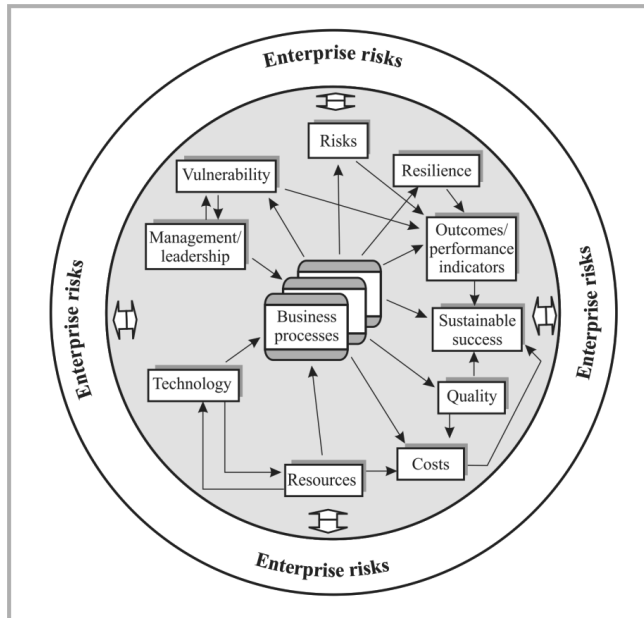
A base for BSC is analysis of external factors (Figure 5) and internal factors (Figure 6) in enterprise context.

Figure 5: External factors in enterprise context



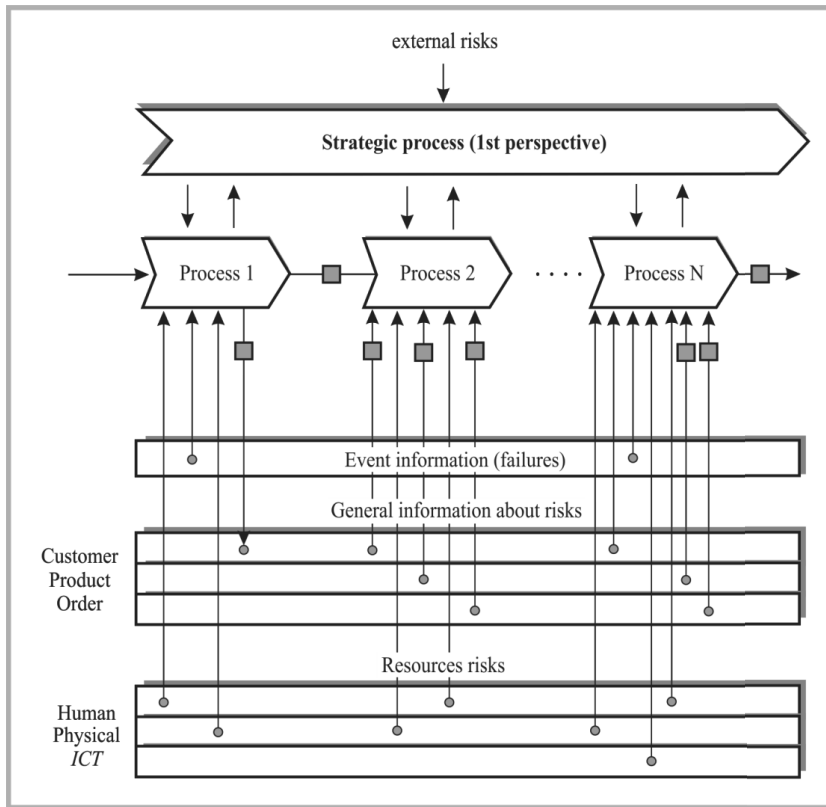
Source: Own study

Figure 6: Internal factors in enterprise context



Source: Own study

Figure 7: Process model in middle of first and third perspective



Source: Own study

On the first perspective is presented strategic process with related external risks. These risks have impact on each process, related to resources risks communicated with event informations and general informations about risks related to customer, product, and orders.

On enterprise level risk management framework model consists from phases:

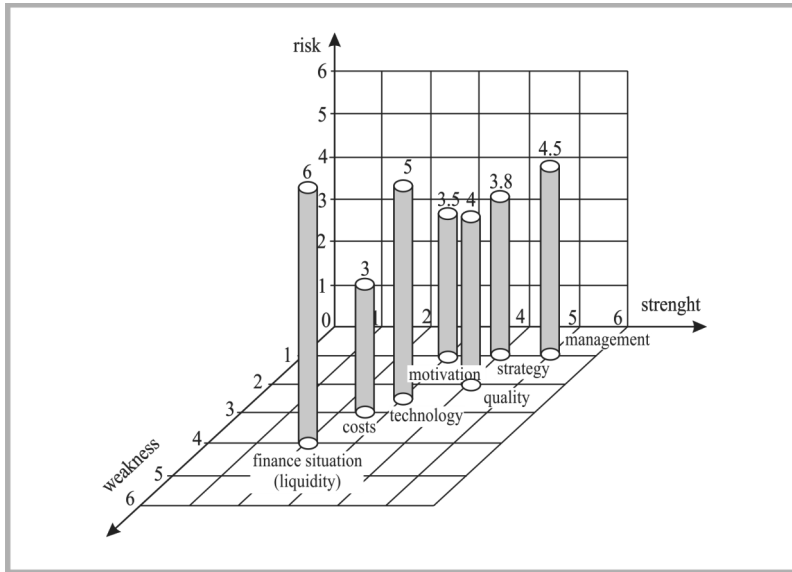
1. business objectives,
2. risk identification,
3. risk assessment, and
4. risk management.

The second and third phases are on operational level and first and four on tactical level. A risk map in the model consists from financial, business, project, and compliance.

A central role in the model is concept of risk appetite as way risk is perceived by on enterprise. Risk appetite is connected with: (1) capability, (2) commitment, (3) choice, (4) consistency, (5) context, (6) challenge, (7) communication, (8) clarity, (9) controls, (10) core values, and (11) culture. On the top of the model is strategic process with strategic risks related to active and passive stakeholders and internal responses on it.

An enterprise risk can be related to internal and external factors in SWOT analysis. So internal factors described with linked level of strenght (S) and weakness (W) for one enterprise is presented in *figure 8*.

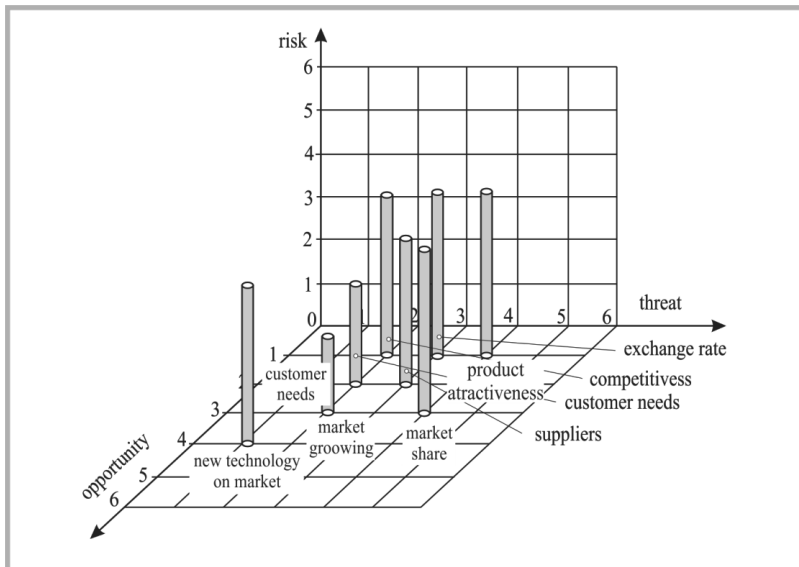
Figure 8. Risks of SW factors in one enterprise



Source: Own study

Factors related to external environment and associated risks are presented in figure 9.

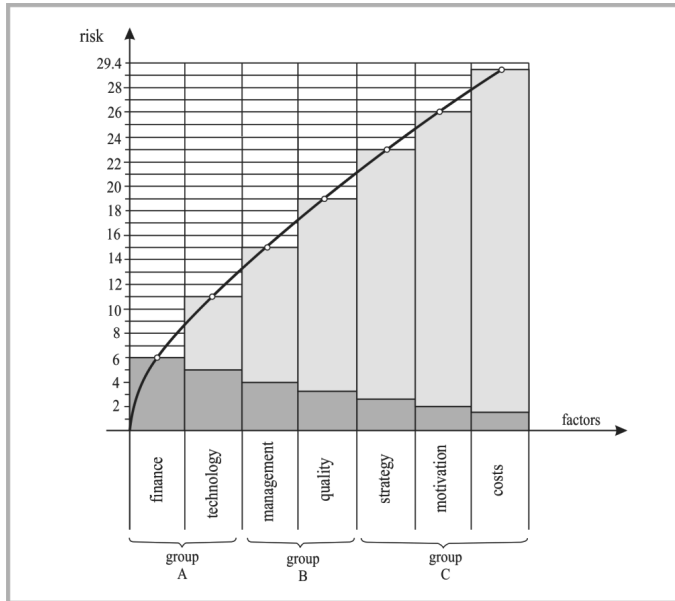
Figure 9. Risks of OT factors in one enterprise



Source: Own study

In analyzed enterprise the critical situation is with finance situation (low strenght-2 and high weakness-4, and high risk-6). Using Pareto analysis of risk level are defined group A, B and C (figure 10).

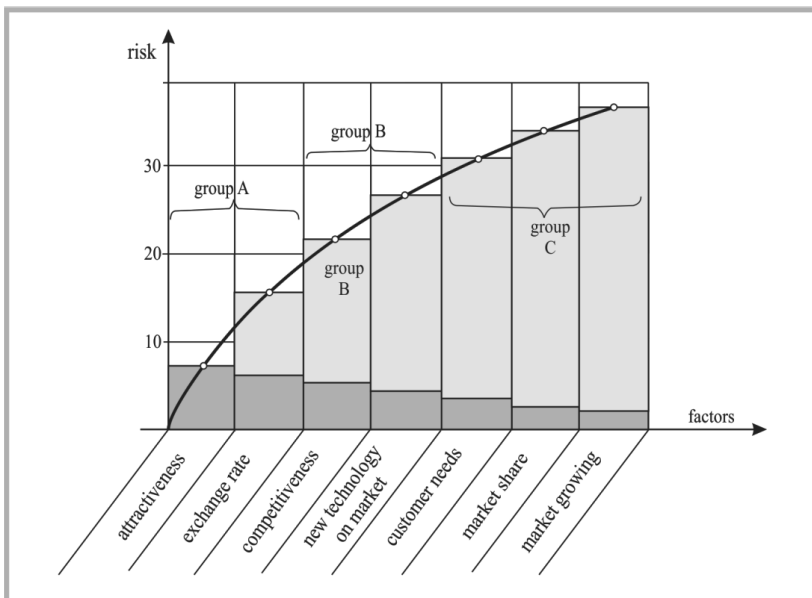
Figure 10: Pareto analysis of risks of internal factors



Source: Own study

On similar way are identified critical risks of external factors (figure 11).

Figure 11: Pareto analysis of risks of external factors



Source: Own study

Risk centered management has a lot of applications. In <sup>39, 40, 41, 42</sup> are presented different approaches for decision making based on enterprise risk, as supplier selection, technology, management, and quality. All of these approaches are based on process risks.

Process risk management is analysed from different view point. So *Chang J.* (2016) emphasized process enterprise hierarchy with three levels: (1) process enterprise on top level, (2) business management practice on middle level, and (3) process has own life cycle with ten phases:

1. set enterprise goals,
2. identity all business processes,
3. set process goals,
4. ranking business processes according to contribution to business goals,
5. assessing potential for improvement,
6. choosing the process that will contribute the most value from aspect of risks, quality etc.
7. choosing different scenarios for process improvement based on incremental or breakthrough approaches,
8. implement process improvement project,
9. monitoring and measuring the processes, and
10. maturing and leaving the process.

An enterprise goals setting is part of process strategy. According literature related to strategy management and quality policy deployment<sup>43, 44, 45</sup> as outcome is hierarchy of business processes. In goal development procedures are included analysis of key factors. Some of them is close to risk. A setting of process goals can be achieved using different approaches and models. So American Productivity and Quality Center<sup>46</sup> issued in last two decades models for industry, local government, bank etc. Also, for enterprises organized on supply chains, was developed SCOR model in which enterprise is viewed as net of interconnected processes. So for city services, according APQC model, are identified process goals/performances. A list of performances for each process is very impressive. An example for process identified as „Develop and Manage City Services“ are identified 126 metric categories expressed by: (1) process efficiency, (2) cost efficiency, (3) cost effectiveness, (4) cycle time, (5) staff productivity, and (6) supplemental information.

A fourth phase is ranking business process according to contribution to business goals. For it are used a lot of methods and approaches. A classical method for it is *Analytical Hierarchy Process (AHP)* method. This method is appropriate for first look on processes. For purpose to include fuzziness of processes authors used Fuzzy AHP and statistical methods. An outcome from this phase is Pareto analysis, as an example for one analysed enterprise (*figure 12*).

In this case processes are:

P1 – manufacturing,

P2 – purchasing,

<sup>39</sup> Jolayemi, J. K. (2009). Policy deployment: A review and comparisons of two best practices models. *Total Quality Management*, 20(8), 877-902.

<sup>40</sup> Lin, L & Hsu, T. (2007). The Qualitative and Quantitative Models for Performance Measurement Systems: *The Agile Service Development. Quality and Quantity*, 42(4), 445-476.

<sup>41</sup> Coelli, T. J., Rao, D. S. P., & Battese, G. E. (2005). *An introduction to efficiency and productivity analysis*. Springer Science & Business Media.

<sup>42</sup> Biazzo, S., & Garengo, P. (2012). *Performance measurement with the balanced scorecard: a practical approach to implementation within SMEs*. Springer Science & Business Media.

<sup>43</sup> Sheridan, B. (1993). *Policy Deployment: The TQM Approach to Long-Range Planning*. Milwaukee, Wisconsin: American Society for Quality.

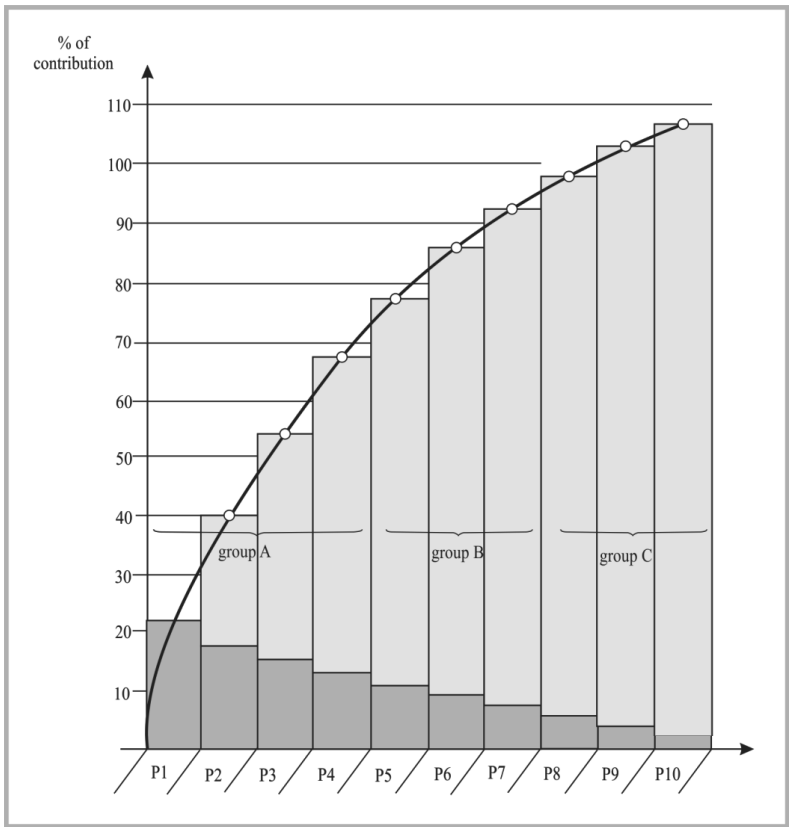
<sup>44</sup> Cudney, E. A. (2009). *Using Hoshin Kanri to improve the value stream*. CRC Press.

<sup>45</sup> Jolayemi, J. K. (2009). Policy deployment: A review and comparisons of two best practices models. *Total Quality Management*, 20(8), 877-902.

<sup>46</sup> Hubert, C., & Lemons, D. (2010). *APQC's levels of knowledge management maturity*.

- P3 – development of products,
- P4 – selling,
- P5 – maintenance,
- P6 – quality assurance,
- P7 – finance,
- P8 – leadership and management,
- P9 – human resources management, and
- P10 – infrastructure support (ICT, facilities).

Figure 12: Pareto analysis of process contribution to business goals



Source: Own study

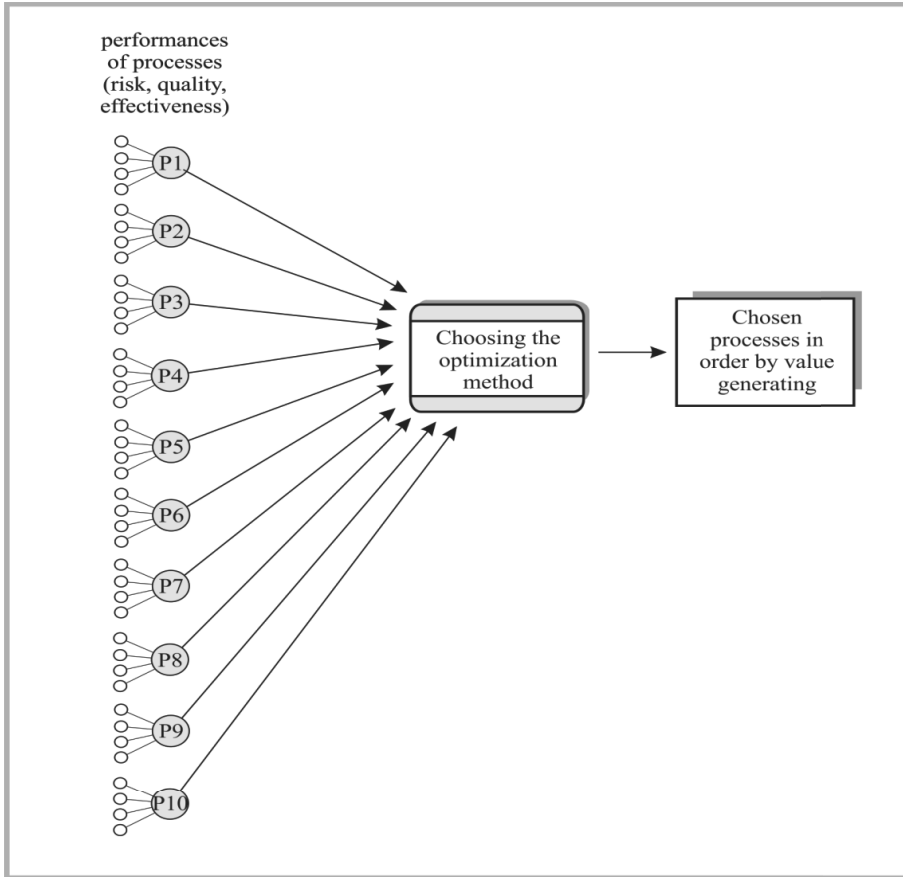
An amount of process contribution is expressed as process value to enterprise value. A process value and enterprise value are calculated according principles and methodology of value management and value assessing<sup>47</sup>.

In the fifth phase is conducting assessing potential for improvement. That depends on impact of processes performances on enterprise performance. Using statistical software is possible to calculate impact of each process performance on total process performance and impact of total process performance

<sup>47</sup> Kaplan, R. & Norton, D. (2008). *The execution premium*. Boston, Mass.: Harvard Business Press.

on total enterprise performance. In figure 13 is presented part of own research for sample of 115 industrial SMEs in Central Serbia. Enterprise performances are simulated using EFQM model (European Foundation Quality Model).

Figure 13: A model for process choosing according risk, quality, and effectiveness



Source: Own study

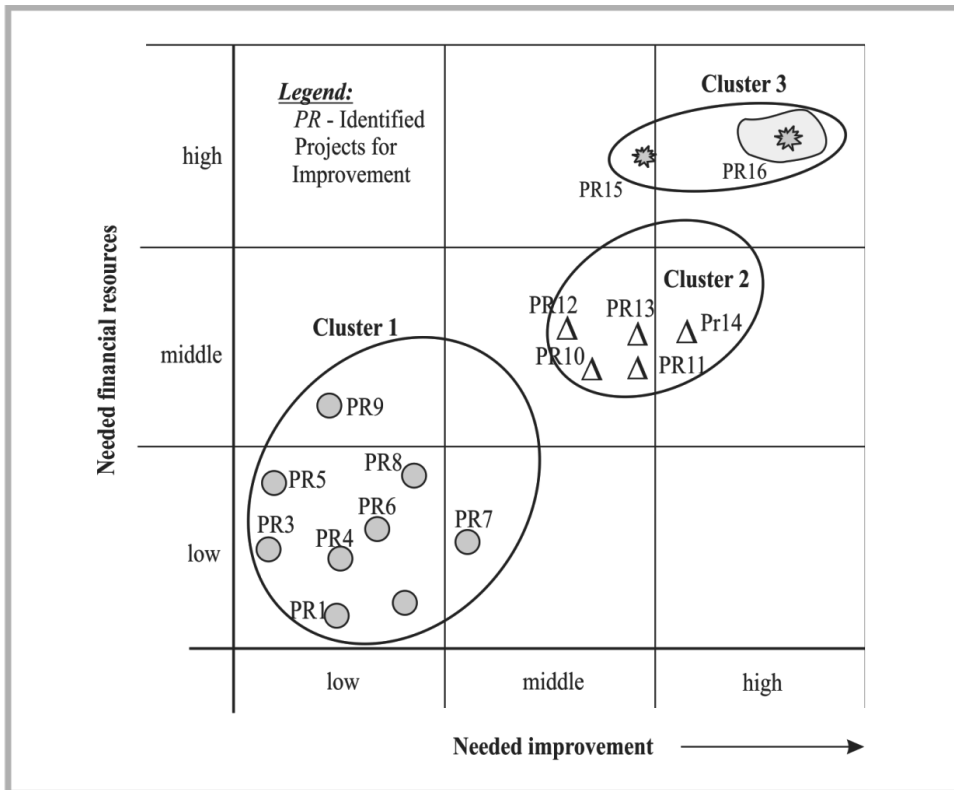
In the sixth phase performed choosing the process that will contribute the most value from aspect of risk, quality and so on. For choice of most contributed process or project are used different approaches and methods, as risk-pooling, AHP, neural network and regression analysis, genetic algorithmis. The used model for quantification of the impact and choices of the most contributed process is presented in *figure 14*.

In the seventh phase are developect scenarios for process improvement. A selection of scenarios is performed using clustering approaches. In *figure 14* is presented results of research for one Serbian's enterprise with axis: X1 (needed improvement in percent) and X2 (needed financial resources). Projects in cluster 1 are based on incremental approach, with dominantly reduction of risk or improvement of skills and motivation of employees. Projects in cluster 2 were also incremental, with investment in new ICT, technology, organization. In analyzed enterprise are identified also needs for radical improvement



based on organizing for change, information security risk management, or productivity management using emerging technologies.

Figure 14: Scenarios for process improvement projects



Source: Own study

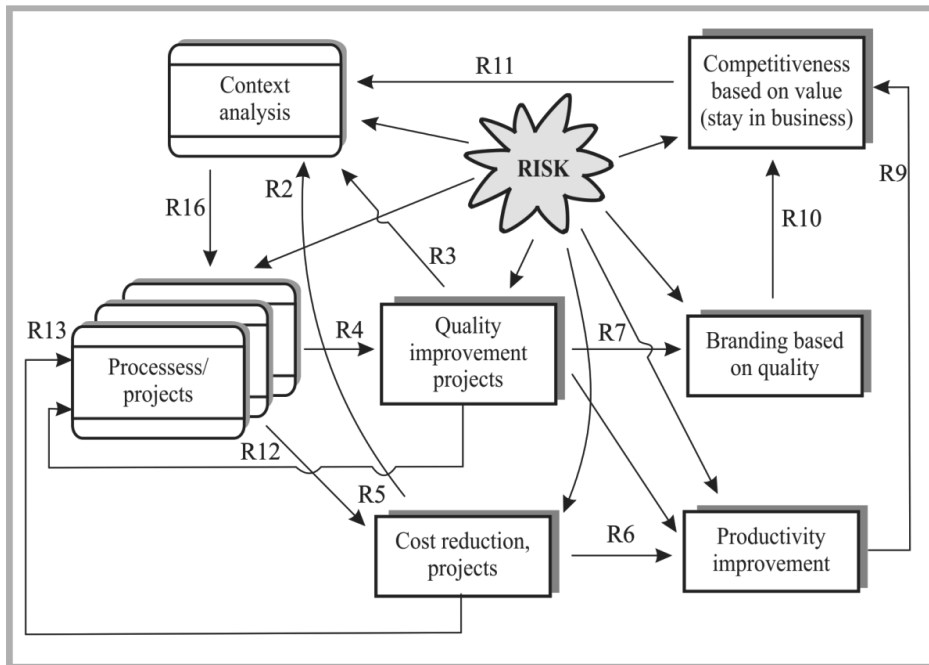
In eight phase is implemented projects. Performances of the projects are monitored and measured in ninth phase. The most used key performances are cost, quality and resilience. Reducing costs has impact on value, as well as quality and risk and resilience of the project solutions.

The tenth phase is assessment of process maturity and learning the processes. For it are used different approaches presented in references.

### Integration model of context analysis, process and enterprise risks

Based on Deming approach related to quality – cost relationship (*figure 15*), the first step in the model description is relation R1 in which context analysis gives inputs (priority of projects, goals, etc) for projects/processes in previos described 10 phase approach. Also, performances of the projects/processes are input for next context analysis. Outputs from processes project are inputs for quality improvement (R4) and cost reduction (R5). Through R2 and R3 are performed both side connections to context analysis.

Figure 15: Base integration model



Source: Own study

Outputs from quality improvement projects are inputs to branding based on quality (R7) and productivity improvement projects (R8). It is very good exploited in literature. On other hand cost reduction is through R6 also related to productivity improvement. A productivity improvement has also impact on competitiveness based on value (R9), as well as branding based on quality (R10). As feedback is relation R1 between competitiveness and control part of the integration model are risk related to all factors in the model.

## Conclusion

For investigated enterprise are identified:

1. In context analysis competitiveness was relative high (4.2 on scale 1-5), strenghts (3.8), weakness (3.5), opportunities (3.6) and threath (3.2) on relative high level in industrial sector.
2. Dominated risks of internal factors are related to finance and technology (group A) and risks of external factors to product attractiveness and exchange rate because the enterprise is import/export very dependable.
3. From aspect of contribution to business goals/value the preferable processes are: (1) manufacturing, (2) purchasing, (3) development of products, and (4) selling.
4. For improvement of selected process are chosed projects in year 2015 in cluster 1 with low needed financial resources. It were projects PR1 and PR2 for quality improvement based on application World Class Manufacturing methodology and projects P3, P4 and P6 based on Lean Six Sigma methodology (base modules).

5. The level of productivity improvement in four preferable process are 0.5%, and quality improvement 1.5% on enterprise level.
6. With these improvement competitiveness arrived for cca 1%.
7. With small spending of financial resources the enterprise stay in business with high potential for further improvement in cluster 1 and 2 for next year.

## Bibliography

1. Aleksic, A., Stefanovic, M., Arsovski, S., Tadic, D. (2013). An assessment of organizational resilience potential in SMEs of the process industry, a fuzzy approach, *Journal of Loss Prevention in the Process Industries*, 26(6), 1238-1245.
2. Aleksic, A., Stefanovic, M., Tadic, D., & Arsovski, S. (2014). A fuzzy model for assessment of organization vulnerability. *Measurement*, 51, 214-223.
3. Arsovski, S. (2006). *Menadžment procesima*, Center for Quality, Faculty of Engineering, Kragujevac, Serbia.
4. Arsovski, S., Tadić, D., Arsovski, Z., Mišić, M. (2016). *A new role of leadership for business sustainability in turbulent environments*, Proceedings of 21000 Project Association Joint Conference, Portugal ([www.21000project.org](http://www.21000project.org)).
5. Arsovski, S., Arsovski, Z., Stefanović, M., Tadić, D., Aleksić, A. (2017). Organisational resilience in a cloud-based enterprise in a supply chain: a challenge for innovative SMEs, *International Journal of Computer Integrated Manufacturing*, 30(4-5), 409-419.
6. Arsovski, S., Putnik, G., Arsovski, Z., Tadic, D., Aleksic, A., Djordjevic, A., Slavisa Moljevic. (2015), Modelling and Enhancement of Organizational Resilience Potential in Process Industry SMEs, *Sustainability*, 7(12), 16483–16497.
7. Arsovski, Z., Arsovski, S., Mirovic, Z., & Stefanovic, M. (2009). Simulation Of Quality Goals: A Missing Link Between Corporate Strategy and Business Process Management. *International Journal for Quality Research*, 3(4), 317-326.
8. Arsovski, Z., Petrovic, D., Arsovski, S., & Pavlovic, A. (2012). Information systems for supply chain management in automotive industry. *Technics Technologies Education Management*, 7(1), 342-353.
9. Becker, J. (2003). *Process management*. Springer, Berlin.
10. Biazzo, S., & Garengo, P. (2012). *Performance measurement with the balanced scorecard: a practical approach to implementation within SMEs*. Springer Science & Business Media.
11. Chang, J. F. (2016). *Business process management systems: strategy and implementation*. Auerbach Publication, Taylor and Francis Group
12. Chao, L.P. and Ishii, K. (2004). Project quality function deployment. *International Journal of Quality & Reliability Management*, 21(9), 938-958.
13. Cho, C. and Lee, S. (2011). A study on process evaluation and selection model for business process management. *Expert Systems with Applications*, 38(5), 6339-6350.
14. Coelli, T. J., Rao, D. S. P., Donnell, C. J., & Battese, G. E. (2005). *An introduction to efficiency and productivity analysis*. Springer Science & Business Media.
15. Collins, B. & Hoge, E. (1993). *Management by policy*. Milwaukee, Wis.: ASQC Quality Press.
16. Cudney, E. A. (2009). *Using Hoshin Kanri to improve the value stream*. CRC Press.
17. David, F. (2011). *Strategic Management: Concepts and Cases* (7th ed.). New Jersey: Prentice Hall.
18. Dvir, D., Ben-David, A., Sadeh, A. and Shenhar, A.J. (2006). Critical managerial factors affecting defense projects success: A comparison between neural network and regression analysis. *Engineering Applications of Artificial Intelligence*, 19(5), 535-543.

19. Fung, I.W., Huang, C. and Tam, C.M. (2013). Application of GA optimization for solving precedent relationship problem in project scheduling. *Mathematical and Computer Modelling*, 57(9), 2067-2081.
20. Grant, R. (2010). *Contemporary strategy analysis*. Cambridge, Mass., USA: Blackwell.
21. Hosseini, S., Barker, K. and Ramirez-Marquez, J.E. (2016). A review of definitions and measures of system resilience. *Reliability Engineering & System Safety*, 145, 47-61.
22. Hubert, C., & Lemons, D. (2010). *APQC's levels of knowledge management maturity*.
23. ISO, E. (2015). 9001: 2015. <http://pihz-certyfikacja.pl/pn-en-iso-9001-2015>.
24. Jin, X.H. and Zhang, G. (2011). Modelling optimal risk allocation in PPP projects using artificial neural networks. *International Journal of Project Management*, 29(5), 591-603
25. Jolayemi, J. K. (2009). Policy deployment: A review and comparisons of two best practices models. *Total Quality Management*, 20(8), 877-902.
26. Jordanova, P., Nefedova, Y. & Stehlik, M. (2017). Risk process approximation with mixing. *Applied Mathematical Modelling*, 41, 285-298.
27. Kaplan, R., & Norton, D. (2008). *The execution premium*. Boston, Mass.: Harvard Business Press.
28. Kay, J. (2001). *Foundations of Corporate Success: How Business Strategies Add Value*. London, UK: Oxford University Press.
29. Lathrop, J., & Ezell, B. (2017). *A systems approach to risk analysis validation for risk management*. Safety Science.
30. Lin, L., & Hsu, T. (2007). The Qualitative and Quantitative Models for Performance Measurement Systems: *The Agile Service Development*. *Quality and Quantity*, 42(4), 445-476.
31. Neely, A. (2002). *Business performance measurement*. Cambridge: Cambridge University Press.
32. Nestic, S., Stefanovic, M., Djordjevic, A., Arsovski, S., & Tadic, D. (2015). A model of the assessment and optimisation of production process quality using the fuzzy sets and genetic algorithm approach. *European Journal of Industrial Engineering*, 9(1), 77-99.
33. Nilsson, A. G., Tolis, C., & Nellborn, C. (1999). Perspectives on business modelling: understanding and changing organisations. In *Perspectives on Business Modelling*, 1-10. Springer Berlin Heidelberg.
34. Park, S., Lee, T.E. & Sung, C. (2010). A three-level supply chain network design model with risk-pooling and lead times. *Transportation Research Part E: Logistics and Transportation Review*, 46(5), 563-581.
35. Pickett, K. S. (2005). *Auditing the risk management process*. John Wiley & Sons.
36. Rozzani, N., Mohamed, I.S. & Yusuf, S.N.S. (2017). *Risk management process: Profiling of islamic microfinance providers*. *Research in International Business and Finance*, 41, 20-27.
37. Saleh, M.S. & Alfantookh, A. (2011). A new comprehensive framework for enterprise information security risk management. *Applied computing and informatics*, 9(2), 107-118.
38. Sheridan, B. (1993). *Policy Deployment: The TQM Approach to Long-Range Planning*. Milwaukee, Wisconsin: Amer Society for Quality.
39. Stefanovic, M., Tadic, D., Arsovski, S., Pravdic, P., Abadic, N., & Stefanovic, N. (2015). Determination of the effectiveness of the realization of enterprise business objectives and improvement strategies in an uncertain environment. *Expert Systems*, 32(4), 494-506. .
40. Tadic, D., Gumus, A. T., Arsovski, S., Aleksic, A., & Stefanovic, M. (2013). An evaluation of quality goals by using fuzzy AHP and fuzzy TOPSIS methodology. *Journal of Intelligent & Fuzzy Systems*, 25(3), 547-556.
41. Thompson, A. & Strickland, A. (2003). *Strategic management*. McGraw-Hill.
42. Van de Water, H. and de Vries, J., 2006. Choosing a quality improvement project using the analytic hierarchy process. *International Journal of Quality & Reliability Management*, 23(4), 409-425.
43. Van Looy, A., De Backer, M., Poels, G. and Snoeck, M., 2013. Choosing the right business process maturity model. *Information & Management*, 50(7), 466-488.

44. Vukšić, V. B., Bach, M. P., & Popović, A. (2013). Supporting performance management with business process management and business intelligence: A case analysis of integration and orchestration. *International Journal of Information Management*, 33(4), 613-619.
45. Weidlich, M. and Mendling, J., 2012. Perceived consistency between process models. *Information Systems*, 37(2), 80-98.
46. Wu, D. D., Chen, S. H., & Olson, D. L. (2014). Business intelligence in risk management: Some recent progresses. *Information Sciences*, 256, 1-7.

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# THE STIMULANTS OF ENTERPRISE VALUE – TYPOLOGY AND EVOLUTION

## *Summary*

*The process of effective enterprise value creation should be preceded by the identification and analysis of the power (sensitivity) and the level of controllability of characteristic for every economic entity partial measures and volumes influencing it value, which in specialist literature are defined as the stimulants of enterprise value.*

*This paper is based on the analysis of literature and the summary of empirical research presented in it. The aim of the article is to systemise the existing literary output devoted to the issues of enterprise value determinants. The pursuit of this goal shows the need to prove the evolution related to the perception of the stimulants of enterprise value growth, including their role in building a strategy focused on the maximisation of value – value based strategy, considering external conditionings of conducting economic activity, the effect of the global economic crisis included.*

\* \* \*

## **Introduction**

Over 30-year-experience related to the practical use of value based management (VBM) in business has shown that one of its fundamental pillars is the process of permanent control and steering of forces driving enterprise value. It arises from the fact that the value of a business entity is a synthetic category, related to its other partial components, and managers whose activities concentrate around taking decisions concordant with the strategic and financial goal, namely the maximisation of the enterprise market value, can affect the level of this economic value only indirectly, by focusing on the main factors stimulating the growth of the enterprise value<sup>1</sup>. The knowledge of all value determinants enables better understanding of the reasons for the occurrence of the difference between the value of a business entity verified from the perspective of the capital value and its book equivalent. The participation of individual determinants in the process of building and maintaining enterprise value over the last decades has undergone significant transformations due to a change in the attitude to running a business, including related risks, since the

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<sup>1</sup> Cf. Copeland T., Koller T., Murrin J., *Wycena: mierzenie i kształtowanie wartości firm*, WIG-Press, Warszawa 1997, p. 87.

effectiveness of value creation of an economic entity has been more and more determined by categories not related directly to the elements of financial reporting.

### Classical value drivers

In his pioneer study devoted to the conditionings of enterprise value creation, A. Rappaport, as one of the first researchers, identified and described seven fundamental factors of value growth defined as value drivers, namely the period of value growth, sales growth, operating profit margin, income tax rate, working capital investments, fixed asset investments and capital expenses<sup>2</sup>. These value determinants were grouped depending on the character of decisions made within the enterprise activity. The postulate of enterprise value maximisation can be fulfilled by taking and implementing effective operation, investment and financial (capital) decisions with the two last ones included in so-called long-term financial decisions<sup>3</sup>. Operation decisions are often of a repetitive character and are related to the sphere of operation management and thus the core enterprise activity. They influence the level of operating costs, structure and price of products and services, as well as the scale and scope of activities related to promotion and distribution<sup>4</sup>. Ineffective operation decisions may result in the dissipation of enterprise value, thus bringing the risk of its bankruptcy. It was proven, among others, in a survey conducted by B. Prusak, based on the insolvency of business entities from Warmia and Mazury voivodeship, in which respondents most often indicated the group of reasons of internal character, related to the operating sphere<sup>5</sup>. Investment decisions focus on the evaluation and classification of investment ventures financed by means of equity and/or debt capitals the effect of which are fixed and current assets. They determine the efficiency and effectiveness of a business entity's strategy, the scale of its activity included. Financing decisions boil down to establishing the relations and the sources of financing the enterprise activity with the use of owners' sources (equity) and creditors' sources (debt capital), and in effect the weighted average cost of enterprise capital. Value creation should be accompanied by effective and sustainable decisions taken in all three areas of enterprise activity. Operation and investment decisions influence directly the stimulant of enterprise value which is the level of its (book and economic) profitability which shapes in parallel the internal value of an enterprise. Financing decisions affect value destimulant which sets minimum return expected by investors and risk related to conducting a business, thus reducing the fundamental value of an organisational unit.

A. Damodaran distinguished financial values and parameters which shape the economic value of an enterprise, estimated by the discounted cash flow (DCF) technique. They are: free cash flow to firm (FCFF), the expected growth and weighted average cost of capital (WACC)<sup>6</sup>. In every enterprise we can also distinguish three universal financial determinants influencing its value:

- revenue stream – revenues from different business entities, products (groups of products, including sales volume and margin achieved), etc.
- the stream of operating costs – the level of production losses, unit consumption of energy raw materials, the efficiency of machinery and/or workforce, the number of workers, etc.,

<sup>2</sup> Rappaport A., *Wartość dla akcjonariuszy. Poradnik menedżera i inwestora*, WIG-Press, Warszawa 1999, p. 65.

<sup>3</sup> The literature of the subject also distinguishes short-term financial decisions the object of which is liquidity management.

<sup>4</sup> Gołębiowski G., Szczepankowski P., *Analiza wartości przedsiębiorstwa*, Difin, Warszawa 2007, p. 17.

<sup>5</sup> Prusak B. (ed.), *Ekonomiczne i prawne aspekty upadłości przedsiębiorstw*, Difin, Warszawa 2007, pp. 29-32.

<sup>6</sup> Damodaran A., *Value Creation and Enhancement: Back to the Future*, Access: <http://people.stern.nyu.edu/adamodar/pdfiles/papers/valcre.pdf> (access date: 14 November 2017).



- engaged capital stream – the level of the possessed assets use, the capital expenditure level, the level of trade receivables, inventory level, liability level, debt share, etc.<sup>7</sup>

Among financial value drivers an important role is also played by, among others, the issue of optimal (target) arrangement of capital structure, from the perspective of the necessity of reconciliation of two different goals related to it, namely the maximisation of the level of a business entity's profitability, and the minimisation of the cost of investment risk. Engaging debt capital in the capital structure of an enterprise on the one hand increases the opportunities to use the positive effect of financial leverage, creates interest tax benefits and gives a possibility to maintain control over the firm by the existing owners, but on the other hand owners' sources increase the risk of the enterprise bankruptcy and definitely weaken its financial standing, its credit ranking included, as well as pose risk for the capability of paying stable dividends<sup>8</sup>. Therefore, the level of weighted average cost of capital is a significant benchmark of the effectiveness of investor value creation. What is closely related to this parameter is the category of the cost of equity, reliable (objective) evaluation of which for the needs of economic calculation, which in turn is the basis for taking decisions concordant with the postulate of the maximisation of enterprise market value, may bring a number of problems. They arise from the fact that the equity cost rate is a non-cash, non-register and abstract parameter, and for many years the academic environment has been postulating the obligation to use at least a few available methods of its estimation in order to raise the credibility of this measurement<sup>9</sup>.

Later literature studies into the determinants of value are to a great extent based on primary (classical) value drivers identified and described by A. Rappaport, at the same constituting their decomposition and particularisation. In the Polish and foreign literature we can also come across other criteria of the typology and links of enterprise value determinants:

- value stimulants classified depending on the results of the effective management of enterprise resources – material, financial, immaterial ones,
- determinants of a general, detailed character (value macro-drivers), considering external and internal conditionings of the discussed enterprise (value micro-drivers), as well as specified activities increasing its value,
- factors on which the enterprise have an active (controllable) influence, as well as those which are out of its control (non-controllable<sup>10</sup>),
- drivers which are related to the ongoing activities of the enterprise (operating), and those which should be discussed from the perspective of long-term goals of the business entity (strategic),
- determinants varied in terms of the power of influence on the enterprise value,
- the division of the stimulants of value according to the criterion of their linking to the elements of the enterprise financial statement,
- value leverages whose motor are business models,, including concepts, methods and techniques created on the grounds of management studies, whose effective use conditions the improvement in

<sup>7</sup> Gorzeń W., Piernicki K., Pniewski K., *Formułowanie i komunikacja strategii wzrostu wartości* [in:] Szablewski A., Pniewski K., Bartoszewicz B. (eds.), *Value Based Management: koncepcje, narzędzia, przykłady*, Poltext, Warszawa 2008, pp. 117-119.

<sup>8</sup> Kruk S., *Finansowe determinanty wartości dla właścicieli* [in:] Borowiecki R., Jaki A. (eds.), *Przedsiębiorstwo w gospodarce rynkowej. Transformacja–Rozwój–Zarządzanie*, Cracow University of Economics – Foundation of Cracow University of Economics, Kraków 2017, pp. 191-197.

<sup>9</sup> Cwiąg W., *Koszt kapitału własnego jako parametr w zarządzaniu wartością* [in:] Borowiecki R., Rojek T. (eds.), *Zarządzanie przedsiębiorstwem. Analiza współczesnych uwarunkowań, koncepcji i determinant*, Cracow University of Economics – Foundation of Cracow University of Economics, Kraków 2016, pp. 229-241.

<sup>10</sup> The literature most often distinguishes such universal non-controllable value determinants as: inflation rate, exchange rate, interest rates and income tax rate.

the operating sphere of the enterprise, stimulating its opportunities and limiting risk factors, thus indirectly affecting the enterprise value.

### **Intellectual capital as a driving force of enterprise value**

In the era of knowledge based economy, enterprise value is to a greater and greater extent determined by intellectual capital (immaterial assets). What has contributed to it are numerous academic publications which widely stressed the effective and creative advantages of this category in the enterprise management process (among others, the works of such researchers as: T. Stewart, L. Edvinsson and M. Malone<sup>11</sup>, M. Marcinkowska)<sup>12</sup> and, promoted since the beginning of 1990s, Balanced Score Card (BSC) by R.S. Kaplan and D.P. Norton, stimulating the creation of enterprise strategy with the arrangement of its immaterial resources, as well as the galloping disproportion between the market capitalisation of companies and their fundamental value and the growing need to understand the reasons for its occurrence and work out the mechanisms enabling its reduction. The experiences so far in value based management have proved that the effective intellectual capital management in an enterprise generates a number of benefits, such as: the improvement in the financial performance of a business entity within building relational capital and effective use of intellectual property possessed by it, creating new opportunities for the enterprise by opening new opportunities for the diversification of its activity, raising the level of its competitiveness on the market, as well as the value of its assets. At the same time, the practical use of intellectual capital is related to a number of difficulties and threats arising from its economic features which at the same time determine the conditionings of its effective use as it is the economic category which requires very high capital expenditure necessary to produce it, which is also connected with high investment risk which changes with the progression of works, and the level of complexity of the measurement and valuation of intellectual capital in the enterprise, including the effectiveness of managing it, is still considered relatively higher when compared to the classical material assets<sup>13</sup>. It does not mean, however, that the process of creating the value of a business entity, related to the effective use of immaterial determinants should take place in isolation from the previously described material and financial drivers. Effective and long-term value creation should be centralised in a sustainable way on all three groups of drivers among which there is co-dependence. The growth of the significance of intellectual capital in the process of enterprise value creation is proven, among others, by the research The Assessment of Torno LLC carried out on the American market (S&P 500 index) from which it resulted that in 1975 the value of the American index was in 83% determined by material resources and in 2015 in 84% was determined by immaterial resources.<sup>14</sup>

Among Polish empirical studies devoted to immaterial (non-financial) value determinants, we should quote a questionnaire conducted in the Polish managerial and analytical environment (the board of listed companies) led by W. Skoczylas in 2006<sup>15</sup>. Their aim was to distinguish key immaterial value determinants in enterprise management from the *ex-post* and *ex-ante* perspective. The results of the study are presented in Table 1.

<sup>11</sup> See: Edvinsson L., Malone M., *Kapitał intelektualny*, Wyd. PWN, Warszawa 2001.

<sup>12</sup> See: Śledzik K., *Kapitał intelektualny w przedsiębiorstwie* [in:] Bielecki J.K., Pawłowicz L. (eds.), *Zarządzanie wartością spółki kapitałowej*, CeDeWu, Warszawa 2015, p. 269.

<sup>13</sup> Dobija D., *Pomiar i sprawozdawczość kapitału intelektualnego przedsiębiorstwa*, Wydawnictwo Wyższej Szkoły Przedsiębiorczości i Zarządzania w Warszawie, Warszawa 2004, pp. 31-37.

<sup>14</sup> Sroka R., *Znaczenie danych niefinansowych dla inwestorów i analityków* [in:] Sroka R. (ed.), *Raportowanie niefinansowe. Wartość dla spółek i inwestorów*, Polish Association of Listed Companies, Warszawa 2016, pp. 124-131.

<sup>15</sup> The questionnaires were sent to 239 firm, obtaining the rate of return at the level of 19.24% and 31 brokerage offices from which the return rate was 22.58% (Skoczylas W. (ed.), *Determinanty i modele wartości przedsiębiorstw*, PWE, Warszawa 2008, pp. 203-204).

Table 1 Non-financial value determinants

Spheres (value macro=drivers)	Factors (value micro-drivers)
1	2
Customers and sales markets	<ul style="list-style-type: none"> <li>• in terms of customers: maintaining customers, customer satisfaction, number of newly won customers, profitability of new customers, customer structure, number of existing customers, the cost of winning customers, dependence on individual customers,</li> <li>• in terms of sales markets: growth of the market, brand image, product and service image, market share, brand value, distribution channels, the share of cross-selling.</li> </ul>
Employment and enterprise management	<ul style="list-style-type: none"> <li>• in terms of employment: efficiency of employees, employees' qualifications, investment in employees' qualifications, stability of employees, employee satisfaction, employee structure, number of employees, unused employee time,</li> <li>• in terms of enterprise management: management quality, managers' remuneration, knowledge management, remuneration of supervisory board members, enterprise expenditure on the enterprise shares purchase.</li> </ul>
Suppliers and supply markets	<ul style="list-style-type: none"> <li>• in terms of suppliers: permanent links with business partners, dependence on individual business partners, number of cooperation relationships, number of new cooperation relationships, business partner' country of origin,</li> <li>• in terms of supply markets: savings in supply, changes in prices on the supply market, volume of supply.</li> </ul>
Processes and innovations	<ul style="list-style-type: none"> <li>• in terms of processes: product and process quality, revenues on the existing products, lead time, the level of the use of production capabilities, the level of product and service errors, expenditure on IT, average service response time,</li> <li>• in terms of innovations: investment in progress and development, number of new products, time of development of new products, the share of new product sales, number of patents, number of new patents, number of new licences, number of licences, remaining time of patent protection, patent sales revenues.</li> </ul>

Source: own study based on: Skoczylas W. (ed.), *Determinanty i modele wartości przedsiębiorstw*, PWE, Warszawa 2008, pp. 202-226.

## Post – crisis factors of enterprise value growth

The global financial crisis, also called the first crisis of the new economy, initiated by the collapse in the real estate market in the United States, revealed the weaknesses of the hitherto prevailing corporate and managerial practices, at the same time exposing higher than so far role of risk in conducting business activities. In consequence, in the second decade of the 21st century we can observe the growth of the significance of the corporate social responsibility (CSR) concept<sup>16</sup>, particularly among entities active on the stock market. Within the utilitarian layer of the CSR concept, we can distinguish ESG (environment, society, governance) criteria which serve the measurement and evaluation of the enterprise effectiveness from the perspective of three thematic areas, within which we can distinguish partial non-financial value determinants:

- the area of natural environment management – policy connected with energy consumption, the strategy of activity development towards the use of renewable energy sources, the level of waste production (including hazardous waste), the level of greenhouse gases emissions, the number of ecological products offered, recycling system, procedures considering environmental criteria in the project financing process,
- The area of social responsibility – a policy and management system related to OHS, policy concerning working time and the remuneration system, policy referring to associating; inclusion of the social responsibility principle in the process of managing and shaping investment decisions,
- the area of corporate governance principles – the level of independence of the Supervisory Board members, the issue of appointing the audit committee, its composition and independence of the chairman, publication of information about the applied corporate governance principles, the firm's ownership structure and the shareholders' voting rights<sup>17</sup>

A change in the elements shaping the value of a business entity has been also noticed by representatives of the analytical and investor environment. In consequence, there has been an increase in the significance of reporting the global development of an enterprise – global reporting initiative (GRI), in the economic, ecological and social dimension, thus conditioning a possibility of a broader, objective and transparent view of the activity of a business organisation, particularly the non-financial aspect of its activity, as well as the level of the consideration of external and internal expectations of stakeholders. In recent years, a new capital allocation orientation has also shaped among potential investors, at the same time being a component of the CSR concept, namely socially-responsible investing – SRI. Within this approach it is assumed that decisions concerning the choice of an investment portfolio are taken based on the assessment of the effectiveness of the assets of the capital market participants set by the ESG criteria, as well as ethical aspects. Thus, investors applying this strategy are focused in their actions not only on the criterion of the maximisation of their own profits, but they also take into consideration the interests of others and so-called social good<sup>18</sup>. At the same time, it increases the engagement of the company shareholders in sustainable and socially responsible investment practices. The SRI concept is related to two basic strategies of capital activation. The first of them, called “negative selection” – assumes the avoidance of the allocation of capital in entities which are connected with pejorative segments of

<sup>16</sup> In 2010 the International Committee for Standardization established ISO 26000 standard which systematises knowledge on the CSR concept in its areas: corporate governance, human rights, relations with employees, natural environment, fair market practices, relations with customers, social engagement (Ministry of Economy, *Raportowanie danych pozafinansowych. Przewodnik dla przedsiębiorstw*, Warszawa 2013, p. 39).

<sup>17</sup> Sergeto P., Burger K., Pitura M., *Raportowanie niefinansowe spółek giełdowych w 2016 roku* [in:] Sroka R. (ed.), *Raportowanie niefinansowe. Wartość dla spółek i inwestorów*, Polish Association of Listed Companies, Warszawa 2016, pp. 12-27.

<sup>18</sup> Dulinić A., *Investowanie społecznie odpowiedzialne – przejściowa moda czy trwała tendencja?*, Zeszyty Naukowe UEK, No. 1(937), Cracow University of Economics, Kraków 2015, p. 40.

economy from the perspective of moral, health or broadly understood public safety (pornographic, alcohol, arms industry, etc.). The other one – called “positive selection” – assumes choosing only the most effective enterprises from the optics of the aforementioned three areas of the ESG criteria to the investment portfolio. A manifestation of the intensification of pro-social sensitivity among the participants of the Polish capital market was the creation of stock market indices associating companies which had effectively implemented the criteria of corporate social responsibility in their activity policy. The first pro-social stock market index in the world was created in New York at the end of 1990s – Dow Jones Sustainability Index. In Central and Eastern Europe, the first stock market index of responsible companies was created on the Warsaw Stock Exchange in 2009 (RESPECT Index).

A study focused on the verification of the level of familiarity with the ESG criteria and their practical use was carried out in 2016 by Deloitte on the population of more than 300 capital market participants<sup>19</sup>. The findings were as follows:

- 62% of respondents see the correlation between responsible attitude to conducting business (based on the ESG criteria) and financial performance of a firm,
- 65% of respondents think that a company whose strategy is based on good practices in the ESG areas can be treated by investors as an entity with a reduced level of risk and thus increased investment attractiveness,
- with regard to responsible companies on WSE: 100% of respondents have heard about its functioning, 8% of respondents consider the fact of finding a company in it when formulating recommendations or making investment decisions, 27% of respondents see the impact of its functioning on an increased interest in responsible investing and the growth of the actual activity of ethical funds on the Polish market,
- 46% of respondents consider the ESG issues when taking investment decisions as the most important criterion (incentive) of considering ESG issues at the stage of exercising shareholder rights respondents indicated a bigger amount of information about the company<sup>20</sup>.

The analysis of the effect of reported information with regard to the ESG criteria on the financial performance of companies active on the Polish stock market was conducted in 2016 by P. Kaźmierekiewicz<sup>21</sup>. Within the analysis, two investment funds were built, which included 20% of companies out of the whole studied population, with the highest (transparent portfolio) and lowest (portfolio with the lack of transparency) ESG scores. The partial results of the study are presented in Table 2.

<sup>19</sup> Representatives of: brokerage offices (54%), investment funds (27%), asset management firms (7%), pension funds (4%) and other groups of entities (8%) took part in the survey. (Deloitte, *Wpływ czynników ESG na decyzje inwestycyjne. Raport z badania*, Warszawa 2016, p. 6, Access: [https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl\\_Raport\\_decyzje\\_inwestycyjne\\_13102016.pdf](https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl_Raport_decyzje_inwestycyjne_13102016.pdf) (access date: 29 May 2017).

<sup>20</sup> Deloitte, *Wpływ czynników ESG na decyzje inwestycyjne. Raport z badania*, Warszawa 2016, pp. 1-26, Access: [https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl\\_Raport\\_decyzje\\_inwestycyjne\\_13102016.pdf](https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl_Raport_decyzje_inwestycyjne_13102016.pdf) (access date: 13 November 2017).

<sup>21</sup> The survey was conducted on the population of 128 companies listed on the main market of WSE and NewConnect stock exchange, from 1 July 2012 to 30 June 2016. The diagnosis used monthly logarithmic rates of return (and the levels of their standard deviation) considering payable dividends in the studied period. The evaluation of individual ESG areas of the studied enterprises was made with the GES Risk Rating method which is of quantitative character and boils down to assigning 0 to 3 points depending on the level of fulfilling ESG criteria. Trust level was 0.05. (Kaźmierekiewicz P., *Pięć lat budowy transparentności* [in:] Sroka R. (ed.), *Raportowanie niefinansowe. Wartość dla spółek i inwestorów*, Polish Association of Listed Companies, Warszawa 2016, pp. 61-67).

Table 2 Selected descriptive statistics of the studied investment portfolios in the years 2012-2016

Specification	Transparent portfolio	Portfolio with the lack of transparency	Difference between portfolios	Statistical significance of the difference between portfolios
Statistical population	26	26	0	-
Average result of ESG in the years 2012-2016	1.437	0.568	0.869	<0.01
Mean monthly rate of return on shares	0.52%	1.38%	-0.86%	0.37
Standard deviation of monthly rates of return	2.75%	3.95%	-1.20%	0.038

Source: Own study based on: Kaźmiernikiewicz P., *Pięć lat budowy transparentności* [in:] Sroka R. (ed.), *Raportowanie niefinansowe. Wartość dla spółek i inwestorów*, Association of Listed Companies, Warszawa 2016, p. 65.

What clearly arises from the presented statistics is that the changeability of the transparent portfolio is statistically significantly lower than the portfolio of companies with the lowest ESG scores. At the same time, it gives grounds to claim that companies reporting non-financial data stand out as posing a lower level of investment risk. The advantage of the profitability of the portfolio with the lack of transparency was not statistically significant.

The presence of risk in the pro-value management was already mentioned in A. Rappaport's study, in which the category is one of the financial value leverages. The problem was also noticed during the development of the VBM concept, as the risk, in accordance with the financial dogma pronouncing that "the one who took the risk, must also take the profit" was classified – in addition to growth and profitability – into the strategic stimulants of the enterprise value growth process, making up so-called triad of pro-value management<sup>22</sup>. When analysing the relation between the mentioned strategic value drivers, we should add that the multiplication of enterprise value is closely linked to the growth of the profitability of its equity and the level of risk accompanying the enterprise functioning. Enterprise value creation occurs only when the speed of the growth of its economic earning power is higher than the growth of the cost of risk incurred with regard to the mobilisation of capital, since in the opposite situation there will be wasting the values of financial resources entrusted by investors. Negative implications of the global slump showed the "darker side"<sup>23</sup> of the value-based management concept, and provoked a broad discussion, both among representatives of the scientific and business environment on the direct criticism of this concept and the need for its redefinition and stronger than before linkage to the sustainable growth concept, CSR, and integrated enterprise risk management (ERM) for the coincidental and more stable (safer) approach to the process of building and maintaining value. The utilitarian result of such

<sup>22</sup> Jaki A., *Przejawy ryzyka w zarządzaniu wartością*, Zeszyty Naukowe Uniwersytetu Szczecińskiego No. 803, „Finanse, Rynki Finansowe, Ubezpieczenia” No. 66, University of Szczecin, Szczecin 2014, p. 748; Schierenbeck H., Lister M., *Value Controlling. Grundlagen Wertorientierter Unternehmensführung*, R. Oldenbourg Verlag, München-Wien 2002, pp. 11-12.

<sup>23</sup> The "darker side" is a paraphrase of the title of a book by A. Damodaran devoted to the conditionings of value creation effectiveness (Damodaran A., *The Dark Side of Valuation: Valuing Young, Distressed, and Complex Businesses*, FT Press, New York 2009).

an approach is the concept of creating shared value (CSV) focused on the creation of shared economic and social value, assuming greater than so far sustainability and reconciliation of economic and social aims<sup>24</sup>. Within the practical use of the CSV concept we can distinguish three key strategies, at the same time making up aggregated directions of enterprise development and the paths of the long-term growth of its value, whose effective implementation conditions creating shared value by a business entity:

- utilisation of new products and markets – it boils down to reformulating products and markets by including social and ecological elements in the enterprise,
- redefinition of productivity in the value chain – reduction of the negative impact of an organisational unit on the natural environment on each stage of creating the value chain,
- development of a local cluster – achieving competitive advantage by means of resources and skills obtained from the nearest, external environment of the enterprise<sup>25</sup>.

## Conclusion

The subject of factors influencing enterprise value as described in this paper does not exhaust a rich palette of their typology accessible in other literature sources. Over recent years there has been distinct intensification of pro-social dimension of the value based management concept by postulating the necessity to conduct business activity not only with investors' and managers' interest in mind, but also considering other groups and individuals related to the enterprise activeness, including its community. This phenomenon is particularly visible and enforceable among the capital market participants and business practitioners due to a rapid increase in the number of publications devoted to CSR and other related concepts which, in combination with the mentioned crisis events and straining trust to the financial sphere of economy, contributed to the deepening of the context of the effectiveness of enterprise functioning, so far based exclusively on hard financial criteria. The process of effective and long-term creation of outstanding enterprise value should take place in a sustainable way, based on both material and immaterial determinants, which will contribute not only to the creation of innovation and relational capital, including the creation of positive interactions with enterprise stakeholders, with the simultaneous reduction of risk related to its activity, but will also create new opportunities for the development of a business entity. It should be also emphasised that post-crisis value drivers on the one hand create the cover protecting the enterprise book value developed with the use of its classical value determiners, and on the other hand they are playing today the function of the leading stimulant of market price of shares and thus the market value of the company.

## Bibliography

1. Copeland T., Koller T., Murrin J., *Wycena: mierzenie i kształtowanie wartości firm*, WIG-Press, Warszawa 1997.
2. Ćwięk W., *Koszt kapitału własnego jako parametr w zarządzaniu wartością* [in:] Borowiecki R., Rojek T. (eds.), *Zarządzanie przedsiębiorstwem. Analiza współczesnych uwarunkowań, koncepcji i determinant*, Cracow University of Economics – Foundation of Cracow University of Economics, Kraków 2016.
3. Damodaran A., *Value Creation and Enhancement: Back to the Future*, Access: <http://people.stern.nyu.edu/adamodar/pdfiles/papers/valcre.pdf>.

<sup>24</sup> Pindelski M., *Etyka, CSR i CSV w orientacjach strategicznych*, „Przegląd Organizacji”, No. 2 (2/2012), pp. 6-10; Porter M.E., Kramer M.R., *The Big Idea: Creating Shared Value*, “Harvard Business Review”, Vol. 1, 2011.

<sup>25</sup> Urbanowska-Sojkin E., Weinert A., *Rozwój koncepcji CSV na kanwie krytyki społecznej odpowiedzialności biznesu*, „Przegląd Organizacji” 2016, No. 6, p. 34.

4. Damodaran A., *The Dark Side of Valuation: Valuing Young, Distressed, and Complex Businesses*, FT Press, New York 2009.
5. Deloitte, *Wpływ czynników ESG na decyzje inwestycyjne. Raport z badania*, Warszawa 2016, Access: [https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl\\_Raport\\_decyzje\\_inwestycyjne\\_13102016.pdf](https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl_Raport_decyzje_inwestycyjne_13102016.pdf).
6. Dobija D., *Pomiar i sprawozdawczość kapitału intelektualnego przedsiębiorstwa*, Wydawnictwo Wyższej Szkoły Przedsiębiorczości i Zarządzania w Warszawie, Warszawa 2004.
7. Duliniec A., *Inwestowanie społecznie odpowiedzialne – przejściowa moda czy trwała tendencja?*, Zeszyty Naukowe UEK, No. 1(937), Cracow University of Economics, Kraków 2015.
8. Edvinsson L., Malone M., *Kapitał intelektualny*, Wyd. PWN, Warszawa 2001
9. Gołębiowski G., Szczepankowski P., *Analiza wartości przedsiębiorstwa*, Difin, Warszawa 2007.
10. Jaki A., *Przejawy ryzyka w zarządzaniu wartością*, Zeszyty Naukowe Uniwersytetu Szczecińskiego No. 803, „Finanse, Rynki Finansowe, Ubezpieczenia” No. 66, University of Szczecin, Szczecin 2014.
11. Kaźmiernikiewicz P., *Pięć lat budowy transparentności* [in:] Sroka R. (ed.), *Raportowanie niefinansowe. Wartość dla spółek i inwestorów*, Polish Association of Listed Companies, Warszawa 2016.
12. Kruk S., *Finansowe determinanty wartości dla właścicieli* [in:] Borowiecki R., Jaki A. (eds.), *Przedsiębiorstwo w gospodarce rynkowej. Transformacja-Rozwój-Zarządzanie*, Cracow University of Economics – Foundation of Cracow University of Economics, Kraków 2017.
13. Ministerstwo Gospodarki, *Raportowanie danych pozafinansowych. Przewodnik dla przedsiębiorstw*, Warszawa 2013.
14. Pindelski M., *Etyka, CSR i CSV w orientacjach strategicznych*, „Przegląd Organizacji”, No. 2 (2/2012).
15. Porter M.E., Kramer M.R., *The Big Idea: Creating Shared Value*, “Harvard Business Review”, Vol. 1, 2011.
16. Prusak B. (ed.), *Ekonomiczne i prawne aspekty upadłości przedsiębiorstw*, Difin, Warszawa 2007.
17. Rappaport A., *Wartość dla akcjonariuszy. Poradnik menedżera i inwestora*, WIG-Press, Warszawa 1999.
18. Schierenbeck H., Lister M., *Value Controlling. Grundlagen Wertorientierter Unternehmensführung*, R. Oldenbourg Verlag, München-Wien 2002.
19. Sergeto P., Burger K., Pitura M., *Raportowanie niefinansowe spółek giełdowych w 2016 roku* [in:] Sroka R. (ed.), *Raportowanie niefinansowe. Wartość dla spółek i inwestorów*, Polish Association of Listed Companies, Warszawa 2016.
20. Skoczylas W. (ed.), *Determinanty i modele wartości przedsiębiorstw*, PWE, Warszawa 2008.
21. Szablewski A., Pniewski K., Bartoszewicz B. (ed.), *Value Based Management: koncepcje, narzędzia, przykłady*, Poltext, Warszawa 2008.
22. Śledzik K., *Kapitał intelektualny w przedsiębiorstwie* [in:] Bielecki J.K., Pawłowicz L. (eds.), *Zarządzanie wartością spółki kapitałowej*, CeDeWu, Warszawa 2015.
23. Urbanowska-Sojkin E., Weinert A., *Rozwój koncepcji CSV na kanwie krytyki społecznej odpowiedzialności biznesu*, „Przegląd Organizacji” 2016, No. 6.



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# MODELS AND CONCEPTS HELPFUL IN ASSESSING EFFICIENCY OF ENTERPRISE VALUE CHAIN

## *Summary*

*The problem of choosing the right model measuring the efficiency of enterprise value chain is one of essential issues in terms of strategic business management. Adopting of an effective measurement model in an enterprise determines whether the existing way of creating value brings the expected effects (added value) from the perspective of the company, the ultimate customer and other stakeholders. In addition, the system of measurement and evaluation of processes allows decisions to be made regarding the choice of an effective strategy for managing the value chain and the introduction of changes in the structure of the value chain that gives the company a competitive advantage in the market.*

*The purpose of this chapter is to present the role of a well-elaborated system for measuring and evaluating value chain of an enterprise for executives and presentation of the types of measurement models used and assessing the effectiveness of the enterprise value chain. In addition, the chapter presents selected models and concepts that can be used in measuring and evaluating the effectiveness of organizations and its existing processes.*

\* \* \*

## **Introduction**

The measurement and the evaluation of the company's functioning allows to make more efficient and effective decisions and to better allocate resources. It contributes to reducing risk. It facilitates communication between the members of the organization as well as the other stakeholders, the formation of a new organizational culture and the building of an organization that enjoys public trust<sup>1</sup>. Although efficiency plays a huge role in shaping the company's position in the market, so far the ideal method of measuring has not been developed. Certainly the evaluation measure of this category should be adapted to the nature of the activity and at the same time to its needs<sup>2</sup>. As stated by E.C. Pasour, efficiency 'is

<sup>1</sup> W. Skoczylas, *Wskaźniki i systemy wskaźników ekonomicznych w pomiarze dokonań przedsiębiorstw*, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2013, p. 144.

<sup>2</sup> I. Witczak, *Problematyka oceny efektywności działania firmy na przykładzie branży farmaceutycznej*, Przedsiębiorczość i Zarządzanie, Wydawnictwo SAN, Tom XVI, 2015, Zeszyt 3, cz. 2, p. 201.

always subjective and cannot be defined or measured independently of objectives and knowledge of decision-maker<sup>3</sup>.

The issue of measuring and assessing the effectiveness of the enterprise value chain has recently become an important question in the decision-making process on choice of an effective business management strategy and search for sustainable sources of competitive advantage in the market<sup>4</sup>. Managers are increasingly focused on making better use of resources to achieve the company's goals. Measurement of the results achieved in determined process structure according to fixed set of gauge can in full and systematic way help to assess whether a company achieves its objectives, whether effectively transforms efforts into effects and can help to improve the optimal structure of the enterprise value chain<sup>5</sup>. Measurement of process effects in terms of their effectiveness and effectiveness should be systematically performed, and the actual values of the measures should be periodically reported to the process owners.<sup>6</sup>

The purpose of this paper is to show the importance of a well-chosen, tailored or developed system for measuring the effectiveness of an enterprise value chain for strategic and operational management needs. In addition, the important task of application of the measurement model is to enable executives to make effective decisions in the areas of improvement of the value chain configuration in order to increase its chances of gaining competitive advantage in the market.

## **Measurement and evaluation of the effectiveness of the enterprise value chain**

The measurement is one of the key elements of effective business management and thus also the management of the value chain<sup>7</sup>. According to S.E. Fawcettai S.R. Clintonaeffective measurement impacts positively on value chain management because it enables the whole value creation system to be understood, influences the behavior of its participants, and provides information on the current situation to both cooperating partners and all stakeholders<sup>8</sup>. The research led by McKinsey and the University of Munster confirms that there is a positive correlation between measurement performance in value

<sup>3</sup> E.C. Pasour, *A further note on the measurement of efficiency and economies of farm size*, "Journal Agriculture Economic", 1981, vol. 32, p. 135.

<sup>4</sup> C. Parker, *Performance measurement*, "Work Study", 2000, vol. 49, No. 2, pp. 63-66; R. Tarasiewicz, *Jak mierzyć efektywność łańcuchów dostaw*, Oficyna Wydawnicza SGH, Warszawa 2014, p.73; T. Dudycz, N. Brycz, *Efektywność funkcjonowania polskich przedsiębiorstw w latach 1994–2004 – wstępne badania empiryczne* [w:] *Efektywność źródłem bogactwa narodów*, T. Dudycz (red.), Zeszyty Naukowe Społecznej Wyższej Szkoły Przedsiębiorczości i Zarządzania, 2006, t. VII, z. 1A, p.91.

<sup>5</sup> S.E. Fawcett, S.R. Clinton, *Enhancing logistics performance to improve the competitiveness of manufacturing organization*, "Production and Inventory Management", 1996, Vol. 37, pp. 40-46.

<sup>6</sup> J. Walas-Trębacz, *Projektowanie łańcucha wartości*, [w:] A. Stabryła, (red.), *Metodologia projektowania systemów organizacyjnych przedsiębiorstwa*, C.H. Beck, Warszawa 2015, p. 360. It should also be noted that efficiency evaluation criteria are altered by globalization processes (because the allocation mechanism operates outside the borders) [B. Janik, *Kapitalizm w ujęciodynamicznym. Od państwa dobrobytu do globalizacji*. Wydawnictwo Akademii Świętokrzyskiej, Kielce 2006, p. 12].

<sup>7</sup> R.S. Kaplan, D.P. Norton, *The Balanced Scorecard – measures that drive performance*, "Harvard Business Review", 1992, Vol. 70, No. 1, pp. 71-79. According to R. Kaplan, "you cannot effectively manage what you cannot measure" [R.S. Kaplan, D.P. Norton, *The Balanced Scorecard – measures that drive performance*, "Harvard Business Review", 1992, Vol. 70, No. 1, p. 78]. The key reasons why businesses should measure their value chains include: the ability to identify success, monitoring of the level of customer satisfaction, help to understand own processes, identification of problems and bottlenecks, ensure that management decisions are based on facts, and not on guesses or emotions and the ability to verify whether the planned improvements are fact [C. Parker, *Performance measurement*, "Work Study", 2000, vol. 49, No. 2, p. 63].

<sup>8</sup> S.E. Fawcett, S.R. Clinton, *Enhancing logistics performance to improve the competitiveness of manufacturing organization*, "Production and Inventory Management", 1996, Vol. 37, pp. 40-46.

chain management and improvement of its efficiency<sup>9</sup>. Deloitte Consulting's research also confirms that measuring the effectiveness of a value chain is an important or key aspect that influences the management and success of organizations<sup>10</sup>. Companies such as Zara, Wal-Mart, Seven Eleven, and many others can also boast of significant accomplishments that were possible owing to full identification of the situation in their value chain and taking of appropriate corrective actions<sup>11</sup>. Measurement in value chain management is the process of quantifying all measurable aspects of a value chain that have impact on improvement of its efficiency, while the measurement system is a set of measures and indicators that quantify any measurable aspects of value chain management<sup>12</sup>.

Increasing competition, globalization, changing roles of entities throughout the value chain, the variety of applied competing strategies, technologies, and information systems, make that company's management want to possess the information on the effectiveness of implementing different solutions. In order to control the level of resource use, current performance of objectives and to make good decisions within value chain, different systems or measuring tools are needed<sup>13</sup>.

To measure and evaluate the efficiency of the value chain qualitative and quantitative criteria may be used. Frequently used criteria for assessing the flow of products along the value chain are: economic efficiency, productivity, order cycle time, customer service level, transport duration, delivery timeliness, supply security, stock level<sup>14</sup>. It is also possible to distinguish such measures of quality as the quality chain, delivery time, cycle time and losses<sup>15</sup>. When evaluating the effectiveness of the value chain, should be taken into account not only the value added but also the share of the costs incurred in achieving the objectives<sup>16</sup>. When analyzing the effectiveness of the value chain, it can be considered in terms of the degree of implementation of planned activities or goals. The most important category in the assessment of the value chain of an enterprise is value added (profit), which can be calculated using different measures (accounting, financial and market) broken down into absolute and relative measures<sup>17</sup> (see table 1).

<sup>9</sup> D.C. Bello, D.I. Gilliland, *The effects of output controls, process controls, and flexibility on export channel performance*, „Journal of Marketing”, 1997, Vol. 61, p.22; *Supply Chain 2020 Report*, MIT Centre for Transportation and Logistics, 2005, August, p. 21.

<sup>10</sup> J. Thomas, *Why your supply chain doesn't work*, „Logistics Management and Distribution Report”, 1999, Vol. 38, No. 6, pp.42-44.

<sup>11</sup> M. Cook, R. Hagey, *Why companies flunk their supply chain*, „Journal of Business Strategy”, 2003, vol. 24. Iss. 4, p.36.

<sup>12</sup> R. Tarasiewicz, *Jak mierzyć efektywność łańcuchów dostaw*, Oficyna Wydawnicza SGH, Warszawa 2014, pp. 71-72.

<sup>13</sup> C. Parker, *Performance measurement*, „Work Study”, 2000, vol. 49, No. 2, p. 66.

<sup>14</sup> M. Ciesielski (red.), *Instrumenty zarządzania łańcuchem dostaw*, PWE, Warszawa 2009, pp. 128-133. Some companies also use the cost-effectiveness ratio for comparative purposes and assessment of the dynamics of the value chain management [T. Chang, R. Mehta, S. Chan, J. Mazur, *The Effect of Market Orientation on Effectiveness and Efficiency: the Case of Automotive Distribution Channels in Finland and Poland*, „Journal of Services Marketing”, 1999, Vol. 13, No. 4/5/1999, pp. 407-418].

<sup>15</sup> D. Kisperska-Moroń (red.), *Pomiar funkcjonowania łańcuchów dostaw*, Wyd. AE Katowice 2006, p. 52. Other criteria for evaluating the effectiveness of the value chain are: cost effectiveness, quality, reliability, innovation, flexibility, reactivity, adaptability, focus on customer, social responsibility [R. Tarasiewicz, *Jak mierzyć efektywność łańcuchów dostaw*, Oficyna Wydawnicza SGH, Warszawa 2014, pp. 44-70; J. Walas-Trębacz, *Projektowanie łańcuchów wartości*, [w:] A. Stabryła, (red.), *Metodologia projektowania systemów organizacyjnych przedsiębiorstwa*, C.H. Beck, Warszawa 2015, p. 383].

<sup>16</sup> Identification, measure and analysis of cost factors in an enterprise are the most important accounting tasks in strategic cost management, primarily for gaining competitive advantage, driven by the use of cost leadership strategies [B. Nita, *Rol rachunkowości zarządczej we wspomaganiu zarządzania dokonaniem przedsiębiorstwa*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2009].

<sup>17</sup> R. Borowiecki (red.), *Pomiar i ocena procesów kreowania wartości w badaniu efektywności przedsiębiorstwa*, Wydawnictwo Fundacji Uniwersytetu Ekonomicznego w Krakowie, Kraków 2009, pp. 65–66; A. Jaki, *Mechanizmy procesu zarządzania wartością przedsiębiorstwa*, UEK w Krakowie, Kraków 2012, pp.152–155. Efficiency is a graduated category, and assessment of its level is related to the need to use various tools to measure efficiency.

Table 1: Absolute and relative performance measures

Types of measures	Absolute measures	Relative measures
Accounting measures	EBIT, EBITDA, NOPAT, EBIDAAT, EPS	ROI, ROA, ROS, ROE, DFL, DOL
Financial measures	FCF, FCFE, GCF, DCF, NPV, CVA	IRR, CFROI, WACC
Market measures	EVA, EVC, MVA, SVA	TSR, VCI

Source: own elaboration based on: [T. Copeland, T. Koller, J. Murrin, *Wycena – mierzenie i kształtowanie wartości firm*, WIG-PRESS, Warszawa 1997, pp.145–149, W. Skoczylas, *Wartość przedsiębiorstwa w systemie jego oceny*, Wydawnictwo Uniwersytetu Szczecińskiego, Szczecin 1998, p. 56; A. Cwynar, W. Cwynar, *Kreowanie wartości spółki poprzez długoterminowe decyzje finansowe*, Polska Akademia Rachunkowości – Wydawnictwo WSIZ, Warszawa-Rzeszów 2007, pp.77–274; T. Dudycz, *Zarządzanie wartością przedsiębiorstwa*, PWE, Warszawa 2005, pp. 177–248; A. Jaki, *Mechanizmy procesu zarządzania wartością przedsiębiorstwa*, UEK w Krakowie, Kraków 2012, p. 149].

The efficiency of value added processes is influenced not only by financial factors, but also by organizational and external factors – the existing ones in the corporate environment. Identification and evaluation of the determinants of the efficiency of value creation processes is associated with substantial degree with the basic determinants of two over arching orientations in management: *market* (constituting the basis for the implementation of the marketing concept aimed at creating of value added for the customer) and *flow* (constituting the basis for the implementation of logistics, influencing the efficiency of delivering value added to the customer)<sup>18</sup>.

Process management requires a clear set of objectives and adequate assessment of measures for the individual processes taking place in the enterprise. Selected process metrics should be grouped within key business success parameters, which is necessary to ensure that process results are measured in the context of areas considered by management to be strategically relevant<sup>19</sup>. Testing the effectiveness of an enterprise value chain is a process that requires the use of appropriate research methods and procedures that enable both multidirectional measurement of the level of efficiency and the formulation of the resulting from its conclusions.

### Types of measurement models and assessment of the effectiveness of the enterprise value chain

The measurement of results is generally defined as the process of quantifying the effectiveness and efficiency of actions<sup>20</sup>. Performance measurement drives action in two aspects: (1) to monitor the organization and the aspirations of people to achieve high performance by means of specific measures; (2) in order that measured activities by means of specific criteria enable on identification of areas needing improvement. Identified weaknesses will allow the management of the company to take corrective action to address the occurred problems<sup>21</sup>.

<sup>18</sup> R. Matwiejczuk, *Zarządzanie marketingowo-logistyczne: wartość i efektywność*, Wydawnictwo C. H. Beck, Warszawa 2006, pp. 100-101.

<sup>19</sup> A. Margherita, G. Klein, M. Elia, *Metrics-based Process Redesign with the MIT Process Handbook*, “Knowledge and Process Management”, 2007, Vol.14, No.1, pp. 46-57.

<sup>20</sup> A. Neely, M. Gregory, K. Platts, *Performance Measurement Systems Design: A Literature Review and Research Agenda*, “International Journal of Operations and Productions Management”, 1995, vol. 15, No. 4, p. 80.

<sup>21</sup> N. Agami, M. Saleh, M. Rasmy, *Supply Chain Performance Measurement Approaches: Review and Classification*, “Journal of Organizational Management Studies”, 2012, p. 2.

Efficiency measurements are usually based on methods and techniques structured in the form of measurement models<sup>22</sup>. The most commonly used methods of measuring effectiveness are indicator methods<sup>23</sup> and parametric and nonparametric methods<sup>24</sup>.

Designing the right strategy should be supported by an advanced measurement system in value chain management so that it is possible to evaluate the effectiveness of the existing chain and propose changes to improve it<sup>25</sup>. Therefore in the next stage of elaboration the various models of multi-criterion measurement and performance effectiveness assessment will then be presented, which can also be used to evaluate the effectiveness of the enterprise value chain.

The variety of efficiency models means that practitioners undertaking diagnostic activities in an organization should use notions and performance criteria derived not only from one model, but treat it as a concept with multiple meanings, determined in each case with respect to a particular organization and its operating conditions<sup>26</sup>.

In the case of value chain measurement, advanced measurement systems that are complex, multidimensional, and integrated can be used. In the practice, several measurement models have been developed to support value chain management in a holistic way, including: balanced scorecard (BSC), reference model among others: SCOR model, (GSCF) partnership model, model elaborated by American Productivity and Quality Center (APQC), DCOR model, CCOR, VCOR model, AMR Research hierarchy system, SMART analysis system, Gunasekaran model, ROF model, PRTM model, SERVQUAL model, MIT model, PCF model. In the literature are presented other models supporting value chain management in terms of integration: G.C. Stevens (1989), H.I. Lee (2000), H.C. Dekker, A.R. van Goor (2000), T. Becker (2002), T. Van der Vaart D.P. van Donka(2004), chain integration model Ch.C. Poirier, five-level compass model, levels of perfection of the chain according to A.T. Kearney, model Poirier and Quinn (2006), process maturity model of the value chain A. Lockamy and K. McCormackor models (systems) used on specific links in the value chain, such as the vendor managed inventory model(VMI), model of joint stock management (JMI), a model of aggregated planning, forecasting, and replenishment for supply chain participants (CPFR), ECR system, MRP system, integrated systems (ERP, SCM, CRM), SSCM system or PQM, ARIEL model.

There are four stages in the evolution of elaboration of the value chain efficiency measurement system: traditional cost accounting systems, improved cost accounting systems, mixed financial-oriented and non-financial systems, and sustainable integrated systems (developed since 2000). Financial performance measurement systems are generally referred to as traditional accounting methods used to measure supply chain performance. They focused mainly on financial ratios, which were always criticized as insufficient because they ignored important strategic and non-financial criteria for measuring supply chain performance.

The prerequisites, for which measuring systems are built, as well as value chain efficiency systems, are: planning, controlling and coordinating all actions taken; control, evaluation and motivation of the crew and benchmarking of own achievements against the competitors<sup>27</sup>. The set of measures and indicators forming the whole measurement system must be very well thought out and cover all the strategic issues for the

<sup>22</sup> M. Kennerley, A. Neely, *Performance Measurement Framework: Business Performance Measurement: Theory and Practice*. Red. A. Neely. Cambridge University Press, Cambridge 2002.

<sup>23</sup> M. Sierpińska, T. Jachna, *Ocena przedsiębiorstwa według standardów światowych*, PWN, Warszawa 2004, pp.144-145.

<sup>24</sup> The presentation and discussion of methods for evaluating organizational effectiveness includes the elaboration by [B. Ziębicki, *Efektywność organizacyjna podmiotów sektora publicznego*. Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014, pp. 84-101, p. 104].

<sup>25</sup> M.L. Fisher, *What is the right supply chain for your product?*, "Harvard Business Review", 1997, March-April, pp. 105-116.

<sup>26</sup> M. Bratnicki, M. Kulikowska-Pawlak, *Uwarunkowania pomiaru efektywności organizacji*, „Zarządzanie i Finanse”, 2013, tom 11, nr 4/2, p. 53.

<sup>27</sup> A. de Toni, S. Tonchia, *Performance measurement systems: models, characteristics and measures*, "International Journal of Operations & Production Management", 2001, Vol. 21, No. ½, p. 49.

correct development of the supply chain.<sup>28</sup> Measurement areas should be: functional area, management level, stakeholders and resource transformation<sup>29</sup>.

## Overview of selected models of measurement and evaluation of organizational effectiveness and processes

The concepts of organizational effectiveness have evolved along with the development of organizational and management theory. As a result of the evolution of the concept of organizational effectiveness, there was formation of several synthetic models: the target model, the system model, the internal process model, the interest group model, the model of interpersonal relations, and the model of competing values<sup>30</sup>. Examples of known models for assessing the effectiveness of an organization's performance and thus evaluating its internal value chain are: model R.M. Steers (1975), model J.P. Campbell (1977); model D.J. Lawless (1979); model R.E. Quinn and J. Rohrbaugh (1983); competing values model R.E. Quinn and K.S. Cameron (1983), model A.Y. Lewin and J.W. Minton (1986), model M. Holstein-Beck (1987); SPA model (1989); model J.R. Galbraith (1995), model M. Bielskiego (1996); model G.A. Rummler and A.P. Brach (2000), concept of A. Stabryła (2000), model R.S. Kaplan and D.P. Norton (2001); concept of S. Cyfert (2006); model PEMM M. Hammer (2007); concept of M. Haffer (2010), concept of M.J. Stankiewicz (2010) and reference model ARIS. Furthermore, in order to measure and evaluate the organization and processes taking place in the company, can be used different models and concepts. These include among others: the maturity assessment model of processes and the enterprise (PCMM), *Tableaux de Bord*, *Performance Prism*, *Business Excellence Models*, corporate model of excellence (*WCM – Word Class Manufacturing*), results management, benchmarking of results and high performance models (among others L. Holbeche, R.P. CLight, E.E. Lawler and C.G. Worley, A.A. de Waal, M. Bratnicki and P. Zbierowski).

Table 2 summarizes some of the models and concepts that can be used to measure and evaluate the effectiveness of processes in the enterprise value chain.

Table 2: Concepts and models that help in evaluating the effectiveness of an organization and assessing the effectiveness of an enterprise value chain

Concepts (models) of management	Characteristic
PEMM – Process and Enterprise Maturity Model	For efficient operation of an organization, care must be taken to ensure that processes are in place. The specificity of their course causes many organizational difficulties, especially in inter-functional areas. By concentrating on ensuring the efficiency of the process, it is often difficult to identify the causes of emerging problems.

<sup>28</sup> M. Ciesielski stresses that the indicators for assessing the effectiveness of the activities carried out should meet the following criteria: adequacy, strength, usability, capacity, rationality and compliance [*Strategie logistyczne przedsiębiorstw*, AE Poznań, 1998, pp. 81-82].

<sup>29</sup> B. Nita, *Rola rachunkowości zarządczej we wspomaganii zarządzania dokonaniai przedsiębiorstwa*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2009, p. 50.

<sup>30</sup> B. Ziębicki, *Efektywność organizacyjna podmiotów sektora publicznego*. Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014, p. 43.

Concepts (models) of management	Characteristic
PEMM – Process and Enterprise Maturity Model	<p>M. Hammer has developed an interesting approach to the analysis, design and modification of processes in the Process and Enterprise Maturity Model. In this model, two groups of factors were identified as determinant of the efficient execution of the process: (1) factors enabling the process to be carried out (including: project, contractors, owner, infrastructure, meters) and (2) organizational capacity (including: organizational culture, high competence and efficient supervision) (1) factors that enable the process to be carried out (we include: project, contractors, owner, infrastructure, measures) and (2) organizational skills (which include: good leadership, effective organizational culture, high competencies and efficient supervision. The first group of factors indicates how the process can function properly in long term perspective. Companies that have this capability have key organizational capabilities. Thanks to carried out analysis may be assumed which aspects of the process are correct but which need to be improved and to what extent.</p>
Balanced ScoreCard	<p>A balanced scorecard is currently one of the most popular management concepts. Over the course of 20 years of use, there have been many variants and modifications. The key benefits of using BSCs are: the ability to summarize in one management report many seemingly unconnected elements that contribute to building competitive advantage, securing against sub optimization by forcing executives to analyze not only the strategic aspects, but also the operational issues.</p> <p>Providing managers with a comprehensive picture of the current situation in the organization and value chain, transforming the strategy into practical activities, the ability to tailor the tasks of lower level managers to the company strategy, clarity of task priorities and evaluation criteria, enhancing cooperation and communication between departments and companies or stimulating creative thinking. Disadvantages associated with it are problems with selecting specific indicators and indicators for the strategy, difficulties in comparing the effectiveness of their introduction in different organizations, difficulties in selecting appropriate measures and indicators, and adapting them to the changes taking place in the enterprise.</p>
Tableaux de Bord	<p>French concept <i>Tableau de Bord</i> is regional alternative to BSC. It was developed much earlier than the BSC, in the 1930s of XX century. Its earlier solution concerned only the evaluation of production processes, based on statistics relating to aspects such as production volume, direct costs, material consumption, productivity, etc. The current layout of the <i>Tableau de Bord</i> was created, as did the BSC in the 1990s, as a result of the same observations regarding the low utility of financial measures in assessing the organization's performance as in the case of BSC. The board is a very easy-to-read instrument for management, enabling a global and fast insight into organization. It is based on both financial and non-financial</p>

Concepts (models) of management	Characteristic
Tableaux de Bord	<p>criteria. It serves to present the results achieved and assess the level of achievement of the organization's objectives. Its development is very labor intensive and requires constant updating of information. The board enables a visual analysis of the data and leads to find the source of failures in the organization's goals, which can then contribute to the verification of a predetermined result.</p>
Performance Prism	<p>It was developed by prof. A.D. Neelya and his colleagues at Cambridge University. It is an advanced model of performance measurement that includes multiple stakeholder groups at multiple levels. It consists of five components: stakeholder requirements, strategy, process, opportunity and resources, and expectations against stakeholders. The main premise is that each organization primarily works to meet the specific needs of its stakeholders. It is these needs that determine the strategy, processes and directions of potential development. The support that the organization received from the stakeholders is also dependent on the level of satisfaction of specific needs. Thus, the key performance indicators in <i>Performance Prism</i> are stakeholder satisfaction and their support to the organization. This model is a complex, labor-intensive tool that requires precise identification of all stakeholders and their expectations, identification of the key factors for the success of the organization, and the means for evaluating the results. The implementation of <i>Performance Prism</i> is similar to that of the <i>Balanced Scorecard</i>, and it comes down to choosing the most appropriate measure for the organization.</p>
Business Excellence Models	<p>Models of business excellence in business practice related to the development of the idea of total quality management in (TQM). The first model of business excellence was established by Deming in Japan in 1951, during his research and advisory activities (DAP – Deming Application Prize). The next models of business excellence are: the Canadian model of excellence (CAE – Canada Award for Excellence, 1984); American model – Malcolm Baldrige (<i>MBNQA</i> – 1987), Australian quality award (<i>AQA</i> – 1988) and in the European Union – the European Quality Award (EQA), now called the Excellence Award EFQM. The assessment areas and criteria set out in each of the models mentioned above are the basis for awarding prestigious awards related to the successful implementation of TQM. They can also be used as a self-assessment tool, from the perspective of developing and achieving greater organizational effectiveness, related to the implementation of TQM. The criteria included in business excellence models are to evaluate the creation of an effective management system that would translate into a high level of customer satisfaction as well as other stakeholder groups.</p>



Concepts (models) of management	Characteristic
World Class Manufacturing – WCM	<p>The WCM concept is based on the approach developed in Japan and in the USA. The term „world class” was introduced by Hayes and Wheelwright to describe the ability developed by Japanese and German companies to compete in exports. They presented a number of good practices including development of the workforce, the development of a management group with technical competences, quality competition, the promotion of employee participation and investment in state-of-the-art equipment. Schonberger used the WCM concept in terms of production, defining it as „the production achieved by aligning resources in order to continuous improvement,” and adding to the practices mentioned by Hayes and Wheelwright development of supplier relationships, product design, and JiT. WCM is „being the best in the world in a given industry”. This must be supported by a combination of product design, quality, low cost, innovation, shorter lead time and reliable delivery of performance and customer service. WCM is a holistic approach to achieving excellent results by: continuously improvement of the effects, engagement of all levels and functions of the organization and adoption of rules of TQM, Lean Management and an „integrated factory”. The purpose of applying this concept may be both the desire to map the value chains of the organization and the organized approach to social responsibility of a business.</p>
CapabilityMaturity Model	<p>The pursuit to excellence in business is based on continuous learning and on acquiring skills in innovation, technology and knowledge of meeting and exceeding customer requirements. Based on the maturity grid of quality management by P.B. Crosby, there was developed an organizational maturity model. The CMM concept is based on the assumption that the more mature the organization is, the greater its ability to execute processes, resulting in better product quality and better business results. Based on CMM were developed many maturity models for various aspects of the organization’s activities.</p>
Benchmarking of results	<p>Benchmarking of results relies on the accumulation of „hard” data, showing differences in performance compared to other organizations. The most commonly compared performance benchmarks are following efficiency areas: customer service efficiency, product or service efficiency, core business process efficiency, process and service efficiency, worker productivity, vendor efficiency, technology efficiency, technical efficiency, new product or service innovation, cost effectiveness and financial efficiency. In practice, it takes different forms. It is carried out both in the formalized processes of organization improvement and it is about gathering information on best practices, using various sources for this purpose. Benchmarking of the results is the basis for determining and grading real targets. It also allows to specify the extent to which your organization adjusts to market standards.</p>

Source: own elaboration based on: [M. Hammer, *The Process Audit*, “Harvard Business Review”, 2007, April, pp. 112-121; U. Skurzyńska-Sikora, *Poprawa efektywności organizacji przy wykorzystaniu modelu PEMM*, „Organizacja i Zarządzanie”, 2008, Nr 3, p. 14; S. Cohen, D. Thiraios, M. Kandilorou, *Performance parameters interrelations from*

*a balanced scorecard perspective*, „Managerial Auditing Journal”, 2008, Vol. 23, No. 5, pp. 485-503; M. Ćwiklicki, *Ewolucja metod organizatorskich*, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2012, p. 123; M. Hazell, M. Morrow, *Performance measurement and benchmarking*, „Management Accounting”, 1992, Vol. 70, No. 11, pp. 44-45; R. Tarasiewicz, *Jak mierzyć efektywność łańcuchów dostaw*, Oficyna Wydawnicza SGH, Warszawa 2014, p. 100; D. Kuchta, R. Ryńca, A. Klaus, *Koncepcja Tableau de Bordi Balanced Scorecard – podobieństwa i różnice*, „Ekonomika i Organizacja Przedsiębiorstwa”, 2009, nr 6, pp. 5-6; A.D. Neely, C. Adams, M. Kennerley, *The Performance Prism, The Scorecard for Measuring and Managing Business Success*, FT Prentice Hall, London 2002, pp. 7-12; W. Cieśliński, M. Kowalewski, *Sukces organizacji – możliwości jego pomiaru z wykorzystaniem koncepcji Performance Prism*, „Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego”, 2009, nr 1/2, pp. 31-32; Ch.E. Bogan, M.J. English, *Benchmarking jako klucz do najlepszych praktyk*, Wydawnictwo Helion, Gliwice 2006, p. 79-88; J. Brillman, *Nowoczesne koncepcje metody zarządzania*, PWE, Warszawa 2002, p. 235-238; T. Murino, G. Naviglio, E. Romano, L. Guerra, R. Revetria, R. Mosca, L.C.A. Cassettari, *World Class Manufacturing Implementation Model*, Applied Mathematics in Electrical and Computer Engineering, Harvard, Cambridge 2012, pp. 371-376; J. Zymonik, *Samoocena przedsiębiorstwa w kontekście wymagań koncepcji kompleksowego zarządzania przez jakość (TQM)*, [w:] *Nowe tendencje w nauce o organizacji i zarządzaniu*. „Prace naukowe Instytutu Organizacji i Zarządzania Politechniki Wrocławskiej”, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1998, nr 68(21), pp. 315-323; Z. Martyniak, *Metody organizowania procesów pracy*, PWE, Warszawa 1996, p. 302; M. Farrar, *The excellent organization*, „Journal of Administrative Management”, January/February 2004, issue 39, p. 24. R. Haffer, *Samoocena i pomiar wyników działalności w systemach zarządzania przedsiębiorstw*, Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika, Toruń 2011, p. 10, p. 36; G.B. Peters, *Benchmarking Customer Service*, Pitman Publishing, London 1994, p. 23].

In measuring and evaluating of the value chain you can also use the estimation of the company's development capacity as an economic system, as well as other methods such as indicator analysis, monitoring, value streams, quality assessment methods (statistical control methods, audit, DFC), cost analysis, relationship analysis, costs of activities, etc. Alternative IT tools, depending on the set objective in the measurement and assessment of effectiveness in different groups of categories, may be: (1) in the results measurement category: for example learning, statistical analysis, variant analysis; (2) in the category of performance analysis: statistical methods, operational research, simulation, data analysis, process thinking; (3) in the improvement category: e.g. lean six sigma, TQM. The choice of specific instruments will also be dictated by the main goal the management intends to achieve in the configured value chain: efficiency or flexibility<sup>31</sup>.

## Conclusion

Development and implementation of a comprehensive model (system) for measuring the performance of a value chain that takes into account assessment of individual links as integrated measures is not an easy task. Despite the many difficulties and diversity of approaches in its development, every company should have a measurement system for the efficient management of the value chain.

Based on received reliable and up-to-date data (results) from undertaken measurements, decisions can be made about changes in configuration, deployment of the external and internal structure of processes in one enterprise, for example development or outsourcing of existing processes, whether to perform a specific range and type of horizontal or vertical integration (mergers, acquisitions) or whether to change the business profile, because the existing one is not profitable.

It is commonly believed that a well-developed value chain measurement system can increase the chances of success by adapting processes across multiple companies or by targeting business to the most profitable market segments, and may also be a source of competitive advantage through product / service differentiation and cost reduction.

<sup>31</sup> D. Kibira, K.C. Moriss, S. Kumaraguru, *Methods and Tools for Performance Assurance of Smart Manufacturing Systems*, National Institute of Standards and Technology, 2015, p. 32-33.

## Bibliography

1. Agami N., Saleh M., Rasmy M., *Supply Chain Performance Measurement Approaches: Review and Classification*, "Journal of Organizational Management Studies", 2012.
2. Bello D.C., Gilliland D.I., *The effects of output controls, process controls, and flexibility on export channel performance*, „Journal of Marketing”, 1997, Vol. 61.
3. Bogan Ch.E., English M.J., *Benchmarking jako klucz do najlepszych praktyk*, Wydawnictwo Helion, Gliwice 2006.
4. Borowiecki R. (red.), *Pomiar i ocena procesów kreowania wartości w badaniu efektywności przedsiębiorstwa*, Wydawnictwo Fundacji Uniwersytetu Ekonomicznego w Krakowie, Kraków 2009
5. Bratnicki M., Kulikowska-Pawlak M., *Uwarunkowania pomiaru efektywności organizacji*, Zarządzanie i Finanse, 2013, tom 11, nr 4/2.
6. Brillman J., *Nowoczesne koncepcje i metody zarządzania*.PWE, Warszawa 2002.
7. Chang T., Mehta R., Chan S., J. Mazur, *The Effect of Market Orientation on Effectiveness and Efficiency: the Case of Automotive Distribution Channels in Finland and Poland*, „Journal of Services Marketing”, 1999, Vol. 13, No. 4/5
8. Ciesielski M. (red.), *Instrumenty zarządzania łańcuchem dostaw*, PWE, Warszawa 2009.
9. Ciesielski M., *Strategie logistyczne przedsiębiorstw*, AE Poznań, 1998.
10. Cieśliński W., Kowalewski M., *Sukces organizacji i możliwości jego pomiaru z wykorzystaniem koncepcji Performance Prism*, „Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego”, 2009, nr 1/2.
11. Cohen S., Thiraios D., Kandilorou M., *Performance parameters interrelations from a balanced scorecard perspective*, „Managerial Auditing Journal”, 2008, Vol. 23, No, 5.
12. Cook M., Hagey R., *Why companies flunk their supply chain*, “Journal of Business Strategy”, 2003, vol. 24. Iss. 4.
13. Copeland T., T. Koller, J. Murrin, *Wycena – mierzenie i kształtowanie wartości firm*, WIG-PRESS, Warszawa 1997.
14. Cwynar A., Cwynar W., *Kreowanie wartości spółki poprzez długoterminowe decyzje finansowe*, Polska Akademia Rachunkowości – Wydawnictwo WSIZ, Warszawa-Rzeszów 2007.
15. Ćwiklicki M., *Ewolucja metod organizatorskich*, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2012.
16. Toni A. de, Tonchia S., *Performance measurement systems: models, characteristics and measures*, “International Journal of Operations & Production Management”, 2001, Vol. 21, No. ½.
17. Dudycz T., *Zarządzanie wartością przedsiębiorstwa*, PWE, Warszawa 2005.
18. Dudycz T., Brycz B., *Efektywność funkcjonowania polskich przedsiębiorstw w latach 1994– 2004 – wstępne badania empiryczne [w:] Efektywność źródłem bogactwa narodów*, T. Dudycz (red.), Zeszyty Naukowe Społecznej Wyższej Szkoły Przedsiębiorczości i Zarządzania, 2006, t. VII, z. 1A.
19. Farrar M., *The excellent organization*, „Journal of Administrative Management”, January/February 2004, issue 39.
20. Fawcett S.E., Clinton S.R., *Enhancing logistics performance to improve the competitiveness of manufacturing organization*, “Production and Inventory Management”, 1996, Vol. 37.
21. Fisher M.L., *What is the right supply chain for your product?*, “Harvard Business Review”, 1997, March-April.
22. Haffer R., *Samoocena i pomiar wyników działalności w systemach zarządzania przedsiębiorstw*, Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika, Toruń 2011.
23. Hammer M., *The Process Audit*, “Harvard Business Review”, 2007, April.
24. Hazell M., Morrow M., *Performance measurement and benchmarking*, “Management Accounting”, 1992, Vol. 70, No. 11.

25. Jaki A., *Mechanizmy procesu zarządzania wartością przedsiębiorstwa*, UEK w Krakowie, Kraków 2012.
26. Janik B., *Kapitalizm w ujęciu dynamicznym. Od państwa dobrobytu do globalizacji*. Wydawnictwo Akademii Świętokrzyskiej, Kielce 2006.
27. Kaplan R.S., Norton D.P., *The Balanced Scorecard – measures that drive performance*, “Harvard Business Review”, 1992, Vol. 70, No. 1.
28. Kennerley M., Neely A., *Performance Measurement Framework: Business Performance Measurement: Theory and Practice*. Red. A. Neely. Cambridge University Press, Cambridge 2002.
29. Kibira D., Moriss K.C., Kumaraguru S., *Methods and Tools for Performance Assurance of Smart Manufacturing Systems*, National Institute of Standards and Technology, 2015.
30. Kisperska-Moroń D. (red.), *Pomiar funkcjonowania łańcuchów dostaw*, Wyd. AE Katowice 2006.
31. Kuchta D., Ryńca R., Klaus A., *Koncepcja Tableau de Bord i Balanced Scorecard – podobieństwa i różnice*, „Ekonomika i Organizacja Przedsiębiorstwa”, 2009, nr 6.
32. Margheritta A., Klein G., Elia M., *Metrics-based Process Redesign with the MIT Process Handbook*, “Knowledge and Process Management”, 2007, Vol.14, No.1 pp. 46–57, January 25,
33. Martyniak Z., *Metody organizowania procesów pracy*, PWE, Warszawa 1996.
34. Matwiejczuk R., *Zarządzanie marketingowo-logistyczne: wartość i efektywność*, Wydawnictwo C. H. Beck, Warszawa 2006.
35. Murino T., Naviglio G., Romano E., Guerra L., Revetria R., Mosca R., Cassettari L.C.A., *World Class Manufacturing Implementation Model*, Applied Mathematics in Electrical and Computer Engineering, Harvard, Cambridge, 2012.
36. Neely, A., Gregory, M. & Platts, K., *Performance Measurement Systems Design: A Literature Review and Research Agenda*, “International Journal of Operations and Productions Management”, 1995, vol. 15, No. 4.
37. Neely A.D., Adams C., Kennerley M., *The Performance Prism, The Scorecard for Measuring and Managing Business Success*, FT Prentice Hall, London 2002.
38. Nita B., *Rola rachunkowości zarządczej we wspomaganii zarządzania dokonaniem przedsiębiorstwa*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2009.
39. Parker C., *Performance measurement*, “Work Study”, 2000, vol. 49, No. 2.
40. Pasour E.C., *A further note on the measurement of efficiency and economies of farm size*, “Journal Agriculture Economic”, 1981, vol. 32.
41. Peters G.B., *Benchmarking Customer Service*, Pitman Publishing, London 1994.
42. Sierpińska M., Jachna T., *Ocena przedsiębiorstwa według standardów światowych*, PWN, Warszawa 2004.
43. Skoczylas W., *Wartość przedsiębiorstwa w systemie jego oceny*, Wydawnictwo Uniwersytetu Szczecińskiego, Szczecin 1998.
44. Skoczylas W., *Wskaźniki i systemy wskaźników ekonomicznych w pomiarze dokonania przedsiębiorstw*, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2013.
45. Skurzyńska-Sikora U., *Poprawa efektywności organizacji przy wykorzystaniu modelu PEMM*, „Organizacja i Zarządzanie”, 2008, Nr 3.
46. *Supply Chain 2020 Report*, MIT Centre for Transportation and Logistics, 2005, August.
47. Tarasiewicz R., *Jak mierzyć efektywność łańcuchów dostaw*, Oficyna Wydawnicza SGH, Warszawa 2014.
48. Thomas J., *Why your supply chain doesn't work*, “Logistics Management and Distribution Report”, 1999, Vol. 38, No. 6.
49. Walas-Trębacz J., *Projektowanie łańcucha wartości*, [w:] A. Stabryła, (red.), *Metodologia projektowania systemów organizacyjnych przedsiębiorstwa*, C.H. Beck, Warszawa 2015.
50. Witczak I., *Problematyka oceny efektywności działania firmy na przykładzie branży farmaceutycznej*, *Przedsiębiorczość i Zarządzanie*, Wydawnictwo SAN, Tom XVI, 2015, Zeszyt 3, cz. 2

51. Ziębicki B., *Efektywność organizacyjna podmiotów sektora publicznego*. Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014.
52. Zymonik J., *Samoocena przedsiębiorstwa w kontekście wymagań koncepcji kompleksowego zarządzania przez jakość (TQM)*, [w:] *Nowe tendencje w nauce o organizacji i zarządzaniu*. „Prace naukowe Instytutu Organizacji i Zarządzania Politechniki Wrocławskiej”, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1998, nr 68 (21).



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# THE EMPLOYER BRANDING AS AN ELEMENT OF CORPORATE IDENTITY

## *Summary*

*Building a brand nowadays goes well beyond the originally defined framework. Currently, we not only distinguish customer branding, corporate branding, but also employer branding. Conscious building an employer brand, whose addressees are present and potential employees of the company, is to bring benefits not only to the enterprise, but also to its staff. The employer branding, however, is not a new concept. It is commonly used, among others by transnational corporations. However, while the activities in the field of employer branding can be found in developed countries, unfortunately, they are not everyday practice of companies in Central and Eastern Europe, including Poland.*

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## **Introduction**

Identity, image and reputation are the main agenda of corporate communication activities. In globalization, image is seen as one of the most important element that being highlighted by organization in contacts with all stakeholders<sup>1</sup>.

Originally, corporate identity was synonymous with organizational nomenclature, logos, company housestyle and visual identification. Many corporate identity practitioners had their roots in graphic design and understandably a good deal of importance was assigned to graphic design<sup>2</sup>.

The understanding of corporate identity has gradually broadened (Olins, 1978; Birkight and Stadler, 1980) and now is taken to indicate the way in which an organization's identity is revealed through behaviour, communications, as well as through symbolism to internal and external audiences<sup>3</sup>. For example, for some authors corporate identity is the mix of elements which gives their organizations

<sup>1</sup> H.Howaniec, *A brand image and corporate social responsibility. The influence of CSR on brand value*, [in:] Marketing management – selected issues, H. Howaniec, W.Waszkielewicz (ed.), ATH Press, Bielsko-Biała 2012, s. 47-60.

<sup>2</sup> C.B.M. van Riel, J.M.T. Balmer, *Corporate identity: the concept, its measurement and management*, "European Journal of Marketing", 1997, Vol. 31 Issue: 5/6, pp.340-355, <https://doi.org/10.1108/eb060635>.

<sup>3</sup> W. Olins, *The Corporate Personality: An Inquiry into the Nature of Corporate Identity*, Thames and Hudson, London 1978; K. Birkight, M.M.Stadler, *Corporate Identity*, Grundlagen, Funktionen, Fallspielen, VerlagModerneIndustrie,

their distinctiveness the foundation of business identities, but they don't mention about these elements. Meanwhile, other authors emphase a few elements, which are – in their opinion – the most important for corporate identity, for example: culture (with staff seen to have an affinity to multiple forms of identity), strategy, structure, history, business activities, and market scope<sup>4</sup>.

As a result, for many practicers and researches, a corporate identity refers to an organization's unique characteristics which are rooted in the behaviour of members of the organization, in the strategies and undertaken activities. Therefore the management of an organization's identity is of strategic importance and requires a multidisciplinary approach<sup>5</sup>.

The objective of corporate identity management (CIM) is to establish a favourable reputation with an organization's stakeholders which will be translated by such stakeholders into a propensity to buy that organization's products and services, to work for or to invest in the organization (Balmer, 1995; van Riel, 1995)<sup>6</sup>. One of most important group for organizations is employees.

### **The concept of employer branding and its role in shaping the corporate identity**

The term employer branding (EB) suggests the differentiation of a firm's characteristics as an employer from those of its competitors. The employment brand highlights the unique aspects of the firm's employment offerings or environment<sup>7</sup>. T. Ambler and S. Barrow define the employer brand in terms of benefits, calling it "the package of functional, economic and psychological benefits provided by employment, and identified with the employing company"<sup>8</sup>. According to S. Lloyd employer branding has been described as the "sum of a company's efforts to communicate to existing and prospective staff that it is a desirable place to work"<sup>9</sup>. J. Sullivan defines this term more broadly. According to him employer branding is "a targeted, long-term strategy to manage the awareness and perceptions of employees, potential employees, and related stakeholders with regards to a particular firm"<sup>10</sup>. The addressees of the taken actions are both prospective employees and persons employed. From this point of view, it is important to communicate the strategy, that's means the firm's value system, policies and behaviours to both within and outside the company. Balmer and Gray (2003) advocate that a strong, favourable corporate brand serve as a powerful "navigational tool" to a variety of stakeholders, which include not only existing employees, customers and shareholders, but also potential employees customers and shareholders<sup>11</sup>. This underlines that effective corporate brand management needs to balance an external orientation with an internal orientation.

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Landsberg an Lech 1980. See: C.B.M. van Riel, J.M.T. Balmer, *Corporate identity: the concept, its measurement and management*, op.cit.

<sup>4</sup> J.M.T. Balmer, *Corporate identity, corporate branding and corporate marketing* □ *Seeing through the fog*, "European Journal of Marketing", 2001, Vol. 35 Issue: 3/4, pp.248-291, <https://doi.org/10.1108/03090560110694763>.

<sup>5</sup> See: C.B.M. van Riel, J.M.T. Balmer, *Corporate identity: the concept, its measurement and management*, op.cit.

<sup>6</sup> J.M.T. Balmer, *Corporate identity: the power and the paradox*, "Design Management Journal", 1995, Winter, pp. 39-44; J.M.T. Balmer, *Corporate branding and connoisseurship*, "Journal of General Management", 1995, Vol. 21 No. 1, Autumn, pp. 22-46; C.B.M. van Riel, *Principles of Corporate Communication*, Prentice-Hall, Hemel Hempstead, UK 1995.

<sup>7</sup> K. Backhaus, S. Tikoo, *Conceptualizing and researching employer branding*, "Career Development International", 2004, Vol. 9 Iss: 5, pp.501 – 517.

<sup>8</sup> T. Ambler, S. Barrow, *The employer brand*, "Journal of Brand Management", 1996, Vol. 4, pp. 185-206.

<sup>9</sup> S. Lloyd, *Branding from the inside out*, "BRW", 2002, Vol. 24, No. 10, pp. 64–66.

<sup>10</sup> J. Sullivan, *Eight elements of a successful employment brand*, "ER Daily", 23 February 2004, available at: [www.erexchange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp](http://www.erexchange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp) (accessed 14.09.2016).

<sup>11</sup> J.M.T. Balmer, E.R. Gray, *Corporate brands: what are they? What of them?*, "European Journal of Marketing", 2003, Vol. 37 Nos 7/8, pp. 972-97.



The importance of existing employees has been recognised in the literature due to the increase of the service era<sup>12</sup>. But the impact of employees on marketing and strategic business effectiveness has been understood particularly with respect to brand strategy and management. Indeed, employees have the ability to help build strong and enduring brand equity (McDonald, de Chernatony, and Harris, 2001<sup>13</sup>; de Chernatony, Drury, and Segal-Horn 2003<sup>14</sup>; King and Grace, 2005<sup>15</sup>). Their ongoing personal contact with consumers gives employees a great deal of influence over the way in which consumers view companies and brands<sup>16</sup>. As a result the internal branding and employer branding have been introduced to the branding literature.

Moroko and Uncles (2008) argue that consumer, corporate, and employer branding share similar characteristics; that is, a brand has to be noticeable, relevant and resonant, and unique<sup>17</sup>. A comparison of the definition of an employer brand provided by Ambler and Barrow (1996) with Park et al.'s (1986) more general brand categorisation further reinforces this argument. Similarly, Park et al. (1986) categorise brands based on how they fulfil the functional, symbolic and experiential needs of customers<sup>18</sup>. Further similarities between corporate branding and employer branding can be observed when considering the "promise" made between the organisation and the stakeholder group. Moroko and Uncles (2008) suggest that an employer brand can be regarded as a psychological contract between an employer and employee, and similarly the corporate branding literature has long considered a brand as a promise from an organisation to customers (e.g. Olins, 2004<sup>19</sup>). For this promise to be successful in an employment context (as it would in a product/service context), the employer brand propositions should be established to ensure that the rational and emotional benefits are congruent with existing and potential employees' expectations (Mosley, 2007<sup>20</sup>)<sup>21</sup>.

Employer branding therefore has the same theoretical foundations as customer branding and corporate branding, however, contrary to the consumer and corporate brands, the center of interest and the most important target group for the employer brand are present and potential employees of the company. Of course, a care about the employer's image took place long before the official creation of the concept. Employers have always sought specialists in their field, highly qualified employees, so that their company could have a competitive advantage on the market and constantly improve their product. But today, especially in time of employee's market, employers more often taking conscious actions that are aimed at building a brand of a good and responsible employer.

<sup>12</sup> C. Foster, K. Punjaisri, R. Cheng, *Exploring the relationship between corporate, internal and employer branding*, "Journal of Product & Brand Management", 2010, Vol. 19 Issue: 6, pp.401-409, <https://doi.org/10.1108/10610421011085712>

<sup>13</sup> M.H.B.McDonald, L. deChernatony, F. Harris, *Corporate marketing and service brands*, "European Journal of Marketing", 2001, Vol. 35 No. 3 and 4, pp. 335-52.

<sup>14</sup> L. de Chernatony, S. Drury, S. Horn, *Building a services brand: stages, people, and orientations*, "The Service Industries Journal", 2003, Vol. 23 No. 3, pp. 1-21.

<sup>15</sup> C. King, D. Grace, *Exploring the role of employees in the delivery of the brand: a case study approach*, "Qualitative Market Research", 2005, 8 (3), 277-298.

<sup>16</sup> L. MorokoM.D. Uncles, *Characteristics of successful employer brands*, "Journal of Brand Management", 2008, Vol. 6 No. 3, pp. 160-75, <https://doi.org/10.1057/bm.2008.4>

<sup>17</sup> Ibidem.

<sup>18</sup> C.W.Park, B.J. Jaworski, D.J. MacInnis(1986), *Strategic brand concept-image management*, "Journal of Marketing", 1986, Vol. 50, pp. 135-45.

<sup>19</sup> W. Olins, *Wally Olins on Brand*, Thames & Hudson, London 2004.

<sup>20</sup> R.W. Mosley, *Customer experience, organizational culture and the employer brand*, Brand Management, 2007, Vol. 15 No. 2, pp. 123-34.

<sup>21</sup> See: C. Foster, K. Punjaisri, R. Cheng, *Exploring the relationship between corporate, internal and employer branding*, op. cit.

## Data and research methodology

Empirical studies were conducted in 2013-2015 on a sample of 180 enterprises from Silesia and Lesser provinces. The study was conducted in the form of a structured interview. Given the subject of the research used a convenient choice. After rejecting of invalid responses, the basis for the calculation were: 150 questionnaires. The sample characteristic is presented in Table 1.

Table 1: The sample characteristic [%]

Organizational position	Chief executive officer / Managing Director / Company owner	Chief marketing officer / Marketing department manager	Sales director / Sales manager	CSR specialist	Other
%	48,7	10,7	22,7	0,7	17,3
Formal status and structure of the company	Enterprise branch	A one-company-enterprise	Multi-company enterprise	Capital group	
%	10,7	70,0	12,7	6,7	
Financial condition	Very favorable	Favorable	Average	Difficult	
%	7,3	57,3	29,3	6,0	
Number of brands	One	From 2 to 3	From 4 to 6	7 or more	
%	52,0	22,7	14,0	11,3	
The employment	Below 10 people	10 – 49 people	50 – 249 people	More than 250 people	
%	48,0	29,3	10,0	12,7	
Company's size	Micro-enterprise	Small enterprise	Medium-sized enterprise	Large enterprise	
%	44,0	35,3	10,0	10,7	
The form of company ownership	Private	The state	Cooperative		
%	93,3	4,7	2,0		
Ownership supervision	Domestic	Foreign	Mixed		
%	86,0	6,0	8,0		

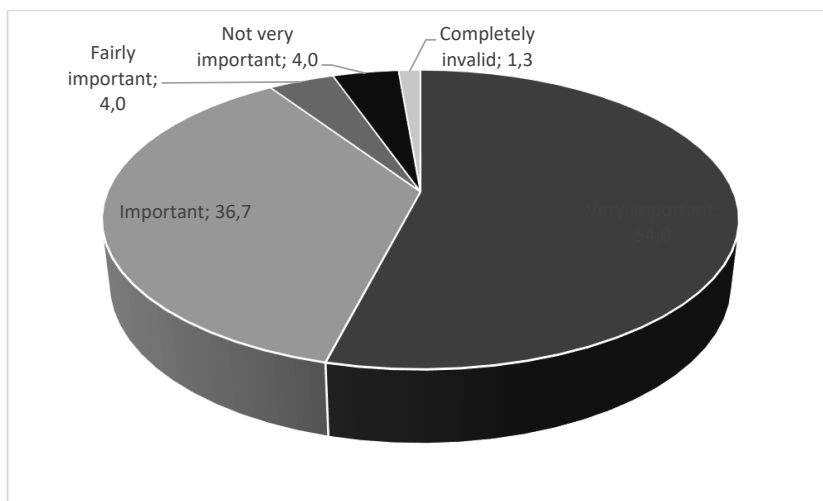
Source: own study based on empirical research. N = 150.

## Employer branding in Poland in the light of research

Trying to determine the level of interest of enterprises operating in Poland by creating the employer's brand, the respondents were asked, among others, about the importance of employees as a group of stakeholders.

Over half of the respondents answered that it is a very important group (54%), for about one third enterprises it is an important group (36.7%). Less than 10% answered that it is a moderately important or not important group (Figure 1).

Figure 1: Employee validity for enterprises [%]



Source: own study based on empirical research.

According to the answers, enterprises attach great importance to employees, which should translate into appropriate actions / strategies towards this group of stakeholders. According to declarations, do companies operating in Poland pay special attention to employees?

As many as 98% of respondents believe that they undertake additional activities for employees. Only 2% of responders indicated that they did not take specific actions in relation to this group.

According to the respondents, entrepreneurs operating in Poland respect employees' rights. Such a sentence is almost 90% of respondents. They also highly assess compliance with health and safety standards and care for health and safety at work – 91.3% and improving safety in the workplace – 62%. Slightly less surveyed, but still very much – about 85%, think that good working conditions are provided. However, this group of activities is strongly related to the applicable provisions of law in the area of health and safety.

Almost half of the surveyed enterprises (48%) organize employee meetings (festivities, picnics). We can positively evaluate the activity of enterprises in the area of employee training – as many as 62% declare that they provide appropriate training to employees. The respondents relatively high also assess the observance of the gender equality policy in access to promotion and professional development – more than half declare its use in decisions regarding the promotion of employees. A little more declares equal treatment of women and men when making decisions on redundancies – 54% of respondents.

Definitely below should be assessed employers' openness to dialogue with the representatives of employees (eg. trade unions, works councils). Such actions were undertaken by only 26% of respondents. The care of employers for special conditions for children of employees is also evaluated low. Only 15% of employers declare taking up any activity in this area. The facilities for mothers are even worse. Only 12% of respondents take such actions.

The responses indicate that the vast majority of enterprises do not go beyond the accepted standard of behavior towards employees. They respect health and safety at work. They provide necessary training, or organize employee meetings, but do not take additional activity, which would aim at special care for employees and conscious building of the employer's brand.

The respondents also had the opportunity to point to other activities they undertake towards employees. However, this option was marked only by 1.3% of surveyed, which additionally confirms the lack of additional activities directed to current or future employees.

Detailed answers of the respondents was presented in Table 2.

Table 2. Perception of the activity of enterprises in relation to employees in the light of research

Topics	Yes	No
Respect the rights of the employee	89,3	10,7
They adhere to safety standards and care about the health and safety	91,3	8,7
Improve safety in the workplace	62,0	38,0
They provide good working conditions	85,3	14,7
Maintain a dialogue with the representatives of employees	26,0	74,0
Organize meetings of employees (picnics or other)	48,0	52,0
Provide appropriate training to employees	62,0	38,0
They provide specific conditions for employees' children	15,3	84,7
We provide special facilities for mothers	12,0	88,0
They apply a policy of gender equality in access to promotion and career development	51,3	48,7
Equal treatment of women and men taking the decision to dismiss	54,0	46,0

Source: own study based on empirical research.

## Conclusion

In the current situation on the labor market, in which employers have significant difficulties in acquiring and retaining qualified employees, employer branding seems to be an indispensable element of the employment strategy. More and more enterprises are taking actions that are not limited to proper compliance with the law, but are an additional value for employees and their families.

The Polish economy in many areas "catching up" the solutions applied in more developed countries, so it is in the presented area. On the one hand, entrepreneurs recognize the importance of employees, on the other hand they confirm the implementation of basic activities addressed to this group of stakeholders. The declared activity concerns, first of all, ensuring proper working conditions. Unfortunately, for the vast majority of responders it seems to be identical with safety and hygiene in the workplace and training. Only the organization of external meetings of employees, such as festivities and picnics, can be considered as additional activity.

Entrepreneurs declare respecting the policy of equal opportunities when hiring and firing employees, but what surprising such declarations is made by only half of the respondents. This raises the question: Does the other half not apply these principles?

The studies do not support the existing efforts aimed at employees. Only 15% of respondents take up the activity directed at the children of employees, and even fewer undertake activities directed at mothers. However, this group of activities is not widely used, and it has not found – as it turned out – a wide popularity among entrepreneurs. These results, however, confirm that enterprises operating in Poland do not take additional measures towards current or potential employees.

## Bibliography

1. Ambler T., Barrow S., *The employer brand*, "Journal of Brand Management", 1996, Vol. 4, pp. 185-206.
2. Backhaus K., Tikoo S., *Conceptualizing and researching employer branding*, "Career Development International", 2004, Vol. 9 Iss: 5, pp. 501 – 517.
3. Balmer J.M.T., *Corporate branding and connoisseurship*, "Journal of General Management", 1995, Vol. 21 No. 1, Autumn, pp. 22-46.
4. Balmer J.M.T., *Corporate identity, corporate branding and corporate marketing* □ *Seeing through the fog*, "European Journal of Marketing", 2001, Vol. 35 Issue: 3/4, pp. 248-291, <https://doi.org/10.1108/03090560110694763>.
5. Balmer J.M.T., *Corporate identity: the power and the paradox*, "Design Management Journal", 1995, Winter, pp. 39-44.
6. Balmer J.M.T., Gray E.R., *Corporate brands: what are they? What of them?*, "European Journal of Marketing", 2003, Vol. 37 Nos 7/8, pp. 972-97.
7. Birkight K., Stadler M.M., *Corporate Identity*, Grundlagen, Funktionen, Fallspielen, Verlag Moderne Industrie, Landsberg an Lech 1980.
8. de Chernatony L., Drury S., Horn S., *Building a services brand: stages, people, and orientations*, "The Service Industries Journal", 2003, Vol. 23 No. 3, pp. 1-21.
9. Foster C., Punjaisri K., Cheng R., *Exploring the relationship between corporate, internal and employer branding*, "Journal of Product & Brand Management", 2010, Vol. 19 Issue: 6, pp. 401-409, <https://doi.org/10.1108/10610421011085712>
10. Howaniec H., A brand image and corporate social responsibility. The influence of CSR on brand value, [in:] *Marketing management – selected issues*, Howaniec H., Waszkielewicz W. (ed.), ATH Press, Bielsko-Biała 2012, s. 47-60.
11. King C., Grace D., *Exploring the role of employees in the delivery of the brand: a case study approach*, "Qualitative Market Research", 2005, 8 (3), 277-298.
12. Lloyd S., *Branding from the inside out*, "BRW", 2002, Vol. 24, No. 10, pp. 64–66.
13. McDonald M.H.B., de Chernatony L., Harris F., *Corporate marketing and service brands*, "European Journal of Marketing", 2001, Vol. 35 No. 3 and 4, pp. 335-52.
14. Moroko L., Uncles M.D., *Characteristics of successful employer brands*, "Journal of Brand Management", 2008, Vol. 6 No. 3, pp. 160-75, <https://doi.org/10.1057/bm.2008.4>
15. Mosley R.W., *Customer experience, organizational culture and the employer brand*, *Brand Management*, 2007, Vol. 15 No. 2, pp. 123-34.
16. Olins W., *The Corporate Personality: An Inquiry into the Nature of Corporate Identity*, Thames and Hudson, London 1978.
17. Park C.W., Jaworski B.J., MacInnis D.J. (1986), *Strategic brand concept-image management*, "Journal of Marketing", 1986, Vol. 50, pp. 135-45.
18. Sullivan J., *Eight elements of a successful employment brand*, "ER Daily", 23 February 2004, [www.erechange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp](http://www.erechange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp).
19. van Riel C.B.M., Balmer J.M.T., *Corporate identity: the concept, its measurement and management*, "European Journal of Marketing", 1997, Vol. 31 Issue: 5/6, pp.340-355, <https://doi.org/10.1108/eb060635>.
20. van Riel C.B.M., *Principles of Corporate Communication*, Prentice-Hall, Hemel Hempstead, UK 1995.
21. W. Olins, *Wally Olins on Brand*, Thames & Hudson, London 2004.



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# THE IDEA OF SOCIAL RESPONSIBILITY AND SUSTAINABILITY IN SUPPLY CHAIN MANAGEMENT

## *Summary*

*Academic and corporate interest in both: social responsibility and sustainability in supply chain management has risen considerably in recent years. Organizations are taking responsible approach to their business strategies, practices and behaviours by implementing sustainable and social responsible strategies. Suppliers are monitored by their clients for the fulfilment of the principles of sustainable development which are guided by the economic, environmental and social aspects. The paper aims to present the areas of social responsibility and sustainability in supply chain management to recognize the integration, synergy and dialogue between these disciplines.*

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## **Introduction**

The supply chain is one of the key drivers of the market success. Multinational organizations aim to produce a cheaper final product and improve competitiveness by outsourcing their production to producers in countries with lower labour costs. The reduced costs of doing business generate both environmental and social costs, what results from the diverse cultural and legislative level in the different regions of the world. Unethical behaviour of suppliers, violation of labour rights, lack of environmental standards, or problems with society may adversely affect business. Nowadays, organizations are interdependent on society. The increasing complexity of the environment influences the organizations so they develop competitive strategies aimed to meet the expectations of society and the different stakeholders. They are interested in establishing friendly relations with its external (customers, business partners, creditors, local community, and others) and internal (owners, employees, managers, shareholders) stakeholders.<sup>1</sup> Organizations are taking responsible approach to their business strategies, practices and behaviours by implementing sustainable and social responsible strategies. Suppliers are monitored by their clients

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<sup>1</sup> R. E. Freeman, *Strategic Management: A Stakeholder Approach*, Cambridge University Press, 2010.

for the fulfilment of the principles of sustainable development which are guided by the economic, environmental and social aspects.

## Corporate social responsibility concept

The corporate responsibility has never taken such a high position among the priorities of the business.<sup>2</sup> In the academic research, H. Bowen has formally introduced and defined the concept of social responsibility as ‘it refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society’<sup>3</sup>. He noticed, that businessmen are responsible for their actions in a sphere wider than that covered only by the profit-and-loss statement. A. B. Carroll suggested that CSR consists of four hierarchically related duties:<sup>4</sup>

- economic responsibilities (to transact business and provide needed products and services in a market economy),
- legal responsibilities (to obey laws),
- ethical responsibilities (to transact business in a manner expected by society as being reasonable, even though not legally required),
- voluntary/discretionary or philanthropic responsibilities (to conduct activities which are guided by business’s discretion, not only by actual responsibility or expectation).

Earlier, at the end of the nineteenth and twentieth centuries, the owners and shareholders of large corporations wrote about social responsibility. A. Carnegie<sup>5</sup>, an American steel magnate, the founder of U.S. Steel Corporation, developed the doctrine of charity and stewardship. These principles are derived from the Bible. The charity principle required the rich members of society to assist its poor members, including the unemployed, the handicapped, the sick and the elderly. This charity principle refers to the evangelical principle of fraternity. The stewardship principle required businesses and wealthy individuals to view themselves as the stewards, or caretakers, of their property. The rich people should be treated as good managers that hold money in trust for the rest of society and that they can use it for any purpose that society deems legitimate.<sup>6</sup>

The term CSR has always been difficult to define. Among researchers and practitioners, there is no single, generally agreed definition of the term CSR.<sup>7</sup> The European Commission in 2001 tried to define CSR as ‘a concept whereby companies integrate social and environmental concerns in their business operations on a voluntary basis’<sup>8</sup>. Ten years later in 2011 the Commission put forward a modern definition of the CSR as ‘the responsibility of enterprises for their impacts on society’<sup>9</sup>.

<sup>2</sup> N. C. Smith, G. Lenssen (ed.), *Odpowiedzialność biznesu. Teoria i praktyka*, Wydawnictwo Studio EMKA, Warszawa 2009, p. 24.

<sup>3</sup> H.R. Bowen, *Social Responsibilities of the Businessman*, Harper and Brothers, New York, 1953, p.6.

<sup>4</sup> A. B. Carroll, *A Three-dimensional Conceptual Model of Corporate Social Performance*, *Academy of Management Review* 1979, Vol. 4, No. 4, p. 497-505; A. B. Carroll, *The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizations*, *Business Horizons*, 1991, Vol. 34, No. 4, p. 39-48.

<sup>5</sup> A. Carnegie, *The Gospel of Wealth and Other Timely Essays*, The Century co., New York, 1901, p. 1-44.

<sup>6</sup> M. Rybak, *Etyka menedżera – społeczna odpowiedzialność przedsiębiorstwa*, Wydawnictwo Naukowe PWN, Warszawa 2004, p.15.

<sup>7</sup> S.S. Taneja, P.K. Taneja, R.K. Gupta, *Researches in Corporate Social Responsibility: A Review of Shifting Focus, Paradigms, and Methodologies*, *Journal of Business Ethics*, 2011, Volume 101, Number 3, p. 343-364.

<sup>8</sup> Commission of the European Communities, *Green Paper Promoting a European Framework for Corporate Social Responsibility*, 366 final, COM, 2001, p. 6, Brussels, Belgium.

<sup>9</sup> European Commission, COM (2011) 681, final, *Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee Of The Regions. A renewed EU strategy 2011-14 for Corporate Social Responsibility*, Brussels, 25.10.2011.



There are also in the research literature terms that are close to the CSR concept: triple bottom line, business ethics, social accountability, business philanthropy, stakeholder management, sustainability management, social legitimacy, corporate citizenship, corporate social performance, corporate governance, etc.

A definition of social responsibility was also developed by International Organization for Standardization (ISO) in ISO 26000 that provides a corporate social responsibility guidance. The ISO considers social responsibility as ‘responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that: contributes to sustainable development, including health and the welfare of society; takes into account the expectations of stakeholders; is in compliance with applicable law and consistent with international norms of behaviour; and is integrated throughout the organization and practised in its relationships.’<sup>10</sup> The core subjects and issues of social responsibility defined in the standard are: organizational governance, human rights, labour practices, the environment, fair operating practices, consumer issues, and community involvement and development. There are also the principles of social responsibility mentioned in ISO 26000: accountability, transparency, ethical behaviour, respect for stakeholder interests, respect for the rule of law, respect for international norms and behaviour, respect for human rights. According to the standard, the implementation of social responsibility can influence, among other things: its competitive advantage; its reputation; its ability to attract and retain workers or members, customers, clients or users; the maintenance of employees’ morale, commitment and productivity; the view of investors, owners, donors, sponsors and the financial community; and its relationship with companies, governments, the media, suppliers, peers, customers and the community in which it operates.<sup>11</sup> The ISO 26000 will add value to existing initiatives for social responsibility by ‘providing harmonized, globally relevant guidance based on international consensus among expert representatives of the main stakeholder groups and so encourage the implementation of best practice in social responsibility worldwide’.<sup>12</sup> The ISO 26000 is recommended by the European Commission on guidance for European enterprises to fulfil their commitment to social responsibility.<sup>13</sup>

Among scholars, businessmen and managers, there is a division on the proponents of the CSR concept and its opponents. Arguments of proponents of corporate social responsibility are well known: an organization by its activities is contributing to the eradication of social inequality, environmental pollution and community problems. The biggest controversy among scholars raises the impact of the CSR strategy on business earnings. The relationship between corporate social responsibility and organization’s financial performance has not been fully confirmed, although empirical research resulted in ambiguous findings. Opponents of the idea are in favour of M. Friedman’s stakeholder theory stated that ‘social responsibility of business is to increase its profits’<sup>14</sup>. Effectiveness of community involvement in the organization, particularly its measurement issues aroused great interest among scientists. Most studies indicated the existence of a positive correlation between the CSR and financial result<sup>15</sup>, some studies,

<sup>10</sup> ISO 26000:2010(en) *Guidance on social responsibility*, Terms and definitions, 2.18.

<sup>11</sup> *Ibidem*, Introduction.

<sup>12</sup> S. Puneet, N. Ashis, *Social Responsibility and ISO 26000 Standards: A New Beginning*, *Advances In Management*, June 2012, Vol. 5 (6), Issue 6, p. 13.

<sup>13</sup> K. W. Syrytczyk, *Improving social responsibility – implementing ISO 26000*, [in:] *Zarządzanie Logistyka – procesy, koncepcje, narzędzia*, red. T. Pokusa, Wyd. Wyższej Szkoły Zarządzania i Administracji w Opolu, Wydawnictwo Instytut Śląski, Opole 2013, p. 294-304.

<sup>14</sup> M. Friedman, *The social responsibility of business is to increase its profit*, *New York Times Magazine*, September 1970, No.13, p. 32.

<sup>15</sup> S.A. Waddock, S.B. Graves, *The Corporate Social Performance – Financial Performance Link*, *Strategic Management Journal*, 1997, Vol. 18, Issue 4, p. 303-319; M.E. Porter, M.R. Kramer, *The Competitive Advantage of Corporate Philanthropy*, *Harvard Business Review*, December 2002, Vol. 80, No. 2, p. 56-69.

however, pointed to the negative relationship<sup>16</sup>. There are also results that indicate no relationship between the CSR and accounting measures<sup>17</sup>. Measurement of the CSR is not an easy task. It is a complex concept, which consists of many factors.<sup>18</sup>

Sustainable development is now considered as the dominant concept of socio-economic development. It is the main principle of both social and global environmental and economic policy, based on three dimensions, covering economic, ecological and social aspects.<sup>19</sup> Sustainable development has been defined in many ways, but the most frequently quoted definition is from Our Common Future, also known as the Brundtland Report: ‘Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’<sup>20</sup>

The problem of the imbalance of economic and social-ecological development became the subject of increased interest of the world public in the sixties and seventies. Since 1960s the United Nations has taken steps to disseminate and implement the concept of sustainable development. Initially, attention was focused on activities related to the problems of resource depletion and environmental protection. Later, the area of interest was increased by the social and economic sphere.<sup>21</sup> It was recognized that the main goal of sustainable development is the quality of life, in terms of mental and material dimensions.<sup>22</sup> Today, organizations are taking efforts to manage their supply chains in ways that support the objectives of the United Nations 2030 Agenda and Sustainable Development Goals.

## Areas of social responsibility and sustainability in supply chain management

J. T. Mentzer et al. defined supply chain management (SCM) as ‘the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole.’<sup>23</sup> A. J. Van Weele suggested that supply chain management can be defined as ‘the management of all activities, information, knowledge and financial resources associated with the flow and transformation of goods and services up from the raw materials supplier, component suppliers and other suppliers in such a way that the expectations of the end users of the company are met or surpassed’.<sup>24</sup>

<sup>16</sup> P. Wright, S. Ferris, *Agency Conflict and Corporate Strategy: The Effect of Divestment on Corporate Value*, Strategic Management Journal, 1997, Vol. 18, Issue 1, p. 77-83.

<sup>17</sup> E. Aupperle, A.B. Carroll, *An Empirical Examination of the Relationship Between Corporate Social Responsibility and Profitability*, Academy of Management Review, 1985, Vol. 28, Issue 2, p. 446-463.

<sup>18</sup> M. Ciesielska, K. W. Syrytczyk, *CSR trust-based relationship with stakeholders (employees and customers)*, [in:] *Mezinárodní Masarykova konference pro doktorandy a mladé vědecké pracovníky*, Vol. II, MAGNANIMITAS, Hradec Králové, Česká Republika 2011, p. 733-740.

<sup>19</sup> A. Papuziński, *Filozofia zrównoważonego rozwoju jako subdyscyplina badań filozoficznych* [in:] *Problemy ekorozwoju: studia filozoficzno-socjologiczne*, Bydgoszcz 2007, Volume 2, Number 2, p. 28.

<sup>20</sup> *Report of the World Commission on Environment and Development: Our Common Future*, Transmitted to the General Assembly as an Annex to document A/42/427 – Development and International Co-operation: Environment.

<sup>21</sup> K. W. Syrytczyk, *The evolution of sustainable development goals in the light of the United Nations Documents*, [in:] *Transformations in contemporary society: humanitarian aspects*, Monograph, ed. W. Duczmal, I. Ostopolets, The Academy of Management and Administration in Opole, Opole 2017, p. 131-136.

<sup>22</sup> S. Kozłowski, *Ekorozwój. Wyzwanie XXI wieku*, Warszawa 2000, p. 60.

<sup>23</sup> J. T. Mentzer, W. DeWitt, J. S. Keebler, S. Min, N. W. Nix, C. D. Smith, *Defining supply chain management*, Journal of Business Logistics, 2001, 22(2), p. 1–25, p.18.

<sup>24</sup> A. J. Van Weele, *Purchasing and Supply Chain Management. Analysis, Strategy, Planning and Practice*, Cengage Learning, 2010, p. 11.

As supply chains have become increasingly global, greater emphasis has been placed on supply chain management's ethical consequences.<sup>25</sup> In recent years, academic and corporate interest in social responsibility and sustainability in supply chain management has risen considerably. The two streams: the sustainability in supply chain management discipline and the business ethics field developed independently. Sustainability and corporate social responsibility issues in supply chains have complementary research topic areas but limited synergy and dialogue between the disciplines. A. M. Quarshie, A. Salmi, R. Leuschner suggest in their research, that this area at large would benefit from greater integration.<sup>26</sup> In the field of sustainable supply chain management, research is dominated by environmental issues. Social aspects and also the integration of the three dimensions of sustainability are still rare.<sup>27</sup>

T. I. Vaaland and R. A. Owusu introduced the concept of responsible supply chain (RSC), that was based on two dimensions, the core processes of a supply chain and the concept of corporate social responsibility. The Authors suggested, that a RSC implies that all major supply chain activities are related to all levels of CSR.<sup>28</sup> The supply chain basic activities were:

- partner selection – the process of identifying and contracting supply chain actors by business buyers and suppliers,
- relationship development – the process of maintaining and developing relationships between buyers, suppliers and other supply chain actors through marketing and management activities,
- and monitoring and controlling – the processes that are undertaken among the supply chain actors to establish specifications and ensure standards and quality compliance.

CSR was divided into three levels:

- intra-organizational level,
- business-to-business level,
- and business-to-society level.

The SCM and CSR were connected through emphasis on:

- values – that constitute the identity of a company and represent the principles that guide an organization's strategy,
- strategies – which enable the organization to achieve competitive advantage and are the direction and scope of an organization over the long term,
- and tactical initiatives – the short term activities that follow from the strategies in order to meet objectives and pursue the mission.

Taking above into consideration, T. I. Vaaland and R. A. Owusu proposed the definition of a responsible supply chain as 'a link of business actors who jointly adopt, implement and coordinate values, strategies and tactics in order to connect all levels of corporate social responsibility to the business processes in the chain'.<sup>29</sup>

Main areas of social responsibility in supply chains are:<sup>30</sup>

<sup>25</sup> O. C. Ferrell, M. M. Rogers, L. Ferrell, J. Sawayda, *A framework for understanding ethical supply chain decision making*, Journal of Marketing Channels, 2013, 20(3–4), p. 260–287.

<sup>26</sup> A. M. Quarshie, A. Salmi, R. Leuschner, *Sustainability and corporate social responsibility in supply chains: The state of research in supply chain management and business ethics journals*, Journal of Purchasing and Supply Management, Volume 22, Issue 2, June 2016, p. 82-97.

<sup>27</sup> S. Seuring, M. Müller, *From a literature review to a conceptual framework for sustainable supply chain management*, Journal of Cleaner Production, Volume 16, Issue 15, October 2008, p. 1699-1710; M. Lehtonen, *The Environmental Social Interface of Sustainable Development: Capabilities, Social Capital, Institutions*, Ecological Economics, Volume 49, Issue 2, 1 June 2004, p. 199-214.

<sup>28</sup> T. I. Vaaland, R. A. Owusu, *What is a Responsible Supply Chain?*, International Journal of Business and Management, Vol. 7, No. 4, February 2012, p. 154-171.

<sup>29</sup> *Ibidem*, p. 159.

<sup>30</sup> E. K. Tekin, A. Ertürk, H. Tozan, *Corporate Social Responsibility in Supply Chains*, [in:] *Applications of Contemporary Management Approaches in Supply Chains*, edited by H. Tozan, A. Erturk, Publisher: InTech, 2015.

- organizational practices,
- ethical practices,
- environmental practices,
- practices of human rights and working conditions (a living wage, freedom of association, work-life balance, not using child or forced labour, etc.),
- practices of occupational health and safety at work,
- practices to establish relationship with society (respect citizens in local communities).

A conceptual framework for analysing CSR practices in global supply chains was presented by M. Andersen and T. Skjoett-Larsen, who noticed that practising CSR in supply chains requires that CSR is embedded within the entire organisation, including subsidiaries abroad, offshore suppliers. It includes employee training and sharing of experience, training of key personnel at the supplier level, positive incentives for suppliers in the form of long-term contracts and enlarged purchasing orders, and regular auditing of suppliers' performance.<sup>31</sup>

Responsible supply chain management can generate value for organization. The benefits can be as follows:<sup>32</sup>

- improved collaboration and strengthen relations with suppliers,
- improved product quality, RSCM can help to safeguard product quality and promote the development of more sustainable products.
- RSCM can help to ensure compliance with customers' expectations and requirements, can document that products are produced in conditions that comply with internationally recognised CSR standards,
- reduced the risk of negative public relations, RSCM can protect organization from negative PR as a consequence of problematic CSR issues in the supply chain,
- organization is able to attract and retain the most qualified employees,
- RSCM can provide security for investors and creditors,
- RSCM can be used proactively to create new market opportunities.

C. R. Carter and M. M. Jennings introduced the idea of socially responsible logistics management, which they called logistics social responsibility (LSR). Their research revealed that activities like issues of diversity, the environment, ethics, safety, philanthropy, and human rights, are dimensions of a higher-order construct and should be grouped together under the idea of LSR.<sup>33</sup> Logisticians should recognize the integration of these issues into the decision-making processes of management, and also realize the synergism that comes from building upon their experiences in one area of LSR, when implementing other. Consequences of logistics social responsibility may be: job satisfaction, employee motivation, trust, improved stakeholder relationships, and financial performance.<sup>34</sup>

## Conclusion

Nowadays, in global society, people are getting more concerned about global financial, social and environmental problems; they are aware of population growth and resource scarcity issues. A growing demand for broader information about organization's social responsibility is observed. Organizations are being forced to act in sustainable way in order to remain successful. Organizational success is not only measured by the economic performance but also by its environmental and social performance. The achievement of a responsible and sustainable supply chain is a challenge. Thus it is important to

<sup>31</sup> M. Andersen, T. Skjoett-Larsen, *Corporate social responsibility in global supply chains*, Supply Chain Management: An International Journal, 2009, Volume 14, Issue 2, p.75-86.

<sup>32</sup> <http://www.csrcompass.com/benefits-responsible-supply-chain-management-0>

<sup>33</sup> C. R. Carter, M. M. Jennings, *Logistics Social Responsibility: An Integrative Framework*, Journal Of Business Logistics, 2002, Vol. 23, No. 1, p. 145-180.

<sup>34</sup> *Ibidem*, p. 157.

continue research for new tool and methods for integrating social responsibility and sustainability to supply chain activities.

## Bibliography

1. Andersen M., Skjoett-Larsen T., *Corporate social responsibility in global supply chains*, *Supply Chain Management*, An International Journal, 2009, Volume 14, Issue 2, p. 75-86.
2. Aupperle E., Carroll A. B., *An Empirical Examination of the Relationship Between Corporate Social Responsibility and Profitability*, *Academy of Management Review*, 1985, Vol. 28, Issue 2, p. 446-463.
3. Bowen H. R., *Social Responsibilities of the Businessman*, Harper and Brothers, New York, 1953.
4. Carnegie A., *The Gospel of Wealth and Other Timely Essays*, The Century co., New York, 1901.
5. Carroll A. B., *A Three-dimensional Conceptual Model of Corporate Social Performance*, *Academy of Management Review* 1979, Vol. 4, No. 4, p. 497-505.
6. Carroll A. B., *The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational*, *Business Horizons*, 1991, Vol. 34, No. 4, p. 39-48.
7. Carter C. R., Jennings M. M., *Logistics Social Responsibility: An Integrative Framework*, *Journal Of Business Logistics*, 2002, Vol. 23, No. 1, p. 145-180.
8. Ciesielska M., Strytczyk K. W., *CSR trust-based relationship with stakeholders (employees and customers)*, [in:] *Mezinárodní Masarykova konference pro doktorandy a mladé vědecké pracovníky, Vol. II, MAGNANIMITAS, Hradec Králové, Česká Republika 2011*, p. 733-740.
9. Commission of the European Communities, *Green Paper Promoting a European Framework for Corporate Social Responsibility*, 366 final, COM, 2001, p. 6, Brussels, Belgium.
10. European Commission, COM (2011) 681, final, *Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee Of The Regions. A renewed EU strategy 2011-14 for Corporate Social Responsibility*, Brussels, 25.10.2011.
11. Ferrell O. C., Rogers M. M., Ferrell L., Sawayda J., *A framework for understanding ethical supply chain decision making*, *Journal of Marketing Channels*, 2013, 20 (3–4), p. 260–287.
12. Freeman R. E., *Strategic Management: A Stakeholder Approach*, Cambridge University Press, 2010.
13. Friedman M., *The social responsibility of business is to increase its profit*, *New York Times Magazine*, September 1970, No.13.
14. <http://www.csrcompass.com/benefits-responsible-supply-chain-management-0> (access: 20.11.2017).
15. *ISO 26000:2010(en) Guidance on social responsibility, Terms and definitions*.
16. Kozłowski S., *Ekorozwój. Wyzwanie XXI wieku*, Warszawa 2000.
17. Lehtonen M., *The Environmental Social Interface of Sustainable Development: Capabilities, Social Capital, Institutions*. *Ecological Economics*, Volume 49, Issue 2, 1 June 2004, p. 199-214.
18. Mentzer J. T., DeWitt W., Keebler J. S., Min S., Nix N. W., Smith C. D., *Defining supply chain management*, *Journal of Business Logistics*, 2001, 22 (2), p. 1–25.
19. Papuziński A., *Filozofia zrównoważonego rozwoju jako subdyscyplina badań filozoficznych* [in:] *Problemy ekorozwoju: studia filozoficzno-socjologiczne*, Bydgoszcz 2007, Volume 2, Number 2, p. 28.
20. Porter M. E., Kramer M. R., *The Competitive Advantage of Corporate Philanthropy*, *Harvard Business Review*, December 2002, Vol. 80, No. 2.
21. Puneet S., Ashis N., *Social Responsibility and ISO 26000 Standards: A New Beginning*, *Advances In Management*, June 2012, Vol. 5 (6), Issue 6.

22. Quarshie A. M., Salmi A., Leuschner R., *Sustainability and corporate social responsibility in supply chains: The state of research in supply chain management and business ethics journals*, Journal of Purchasing and Supply Management, Volume 22, Issue 2, June 2016, p. 82-97.
23. *Report of the World Commission on Environment and Development: Our Common Future*, Transmitted to the General Assembly as an Annex to document A/42/427 – Development and International Co-operation: Environment.
24. Rybak M., *Etyka menedżera – społeczna odpowiedzialność przedsiębiorstwa*, Wydawnictwo Naukowe PWN, Warszawa 2004.
25. Seuring S., Müller M., *From a literature review to a conceptual framework for sustainable supply chain management*, Journal of Cleaner Production, Volume 16, Issue 15, October 2008, p. 1699-1710
26. Smith N. C., Lenssen G. (ed.), *Odpowiedzialność biznesu. Teoria i praktyka*, Wydawnictwo Studio EMKA, Warszawa 2009.
27. Syrytczyk K. W., *Improving social responsibility – implementing ISO 26000*, [in:] *Zarządzanie Logistyka – procesy, koncepcje, narzędzia*, red. T. Pokusa, Wyd. Wyższej Szkoły Zarządzania i Administracji w Opolu, Wydawnictwo Instytut Śląski, Opole 2013, p. 294-304.
28. Syrytczyk K. W., *The evolution of sustainable development goals in the light of the United Nations Documents*, [in:] *Transformations in contemporary society: humanitarian aspects, Monograph*, ed. W. Duczmal, I. Ostopolets, The Academy of Management and Administration in Opole, Opole 2017, p. 131-136.
29. Taneja S. S., Taneja P. K., Gupta R. K., *Researches in Corporate Social Responsibility: A Review of Shifting Focus, Paradigms, and Methodologies*, Journal of Business Ethics, 2011, Volume 101, Number 3, p. 343-364.
30. Tekin E. K., Ertürk A., Tozan H., *Corporate Social Responsibility in Supply Chains*, [in:] *Applications of Contemporary Management Approaches in Supply Chains*, edited by H. Tozan, A. Erturk, Publisher: InTech, 2015.
31. Vaaland T. I., Owusu R. A., *What is a Responsible Supply Chain?*, International Journal of Business and Management, Vol. 7, No. 4, February 2012, p. 154-171.
32. Van Weele A. J., *Purchasing and Supply Chain Management. Analysis, Strategy, Planning and Practice*. Cengage Learning, 2010.
33. Waddock S. A., Graves S. B., *The Corporate Social Performance – Financial Performance Link*, Strategic Management Journal, 1997, Vol. 18, Issue 4, p. 303-319.
34. Wright P., Ferris S., *Agency Conflict and Corporate Strategy: The Effect of Divestment on Corporate Value*, Strategic Management Journal, 1997, Vol. 18, Issue 1, p. 77-83.

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# MOTIVATING WORKERS AS A SIGNIFICANT ELEMENT OF MANAGING AN ORGANISATION

## *Summary*

*The work concerns the problem of motivating workers in an organisation taking into consideration the challenges that present and future employers face. The author explains the concept of motivating, which is the fundamental element of the widely understood system of human resources management and presents theories of motivation in relation to the literature of the subject. The knowledge of the methods of motivating in the process of management is the key aspect for any manager. The current motivation systems aim to create such conditions that the worker himself would want to do what is expected of him/her, with pleasure, because he/she feels a part of the organisation, and also because of his/her need to achieve success and gain recognition at work.*

\* \* \*

## **Introduction**

Dynamic social and political changes, the development of information technology, intensive globalisation, increasing competition and the development of economy based on knowledge all have a great influence on managing contemporary enterprises. The role of managers is believed to be very important if organisations want to achieve their aims. Because of quickly changing conditions, any enterprise must constantly find new ways of stimulating motivation and ensuring its workers' commitment. The significance of the role of an individual in achieving goals, competitiveness, and as a result as well the success of the organisation is strongly emphasised in management sciences<sup>1</sup>.

Human resources are the most valuable capital of every organisation and this means that without the commitment and support of workers it is not possible to fulfil the aims of the organisation. Nowadays the human capital is said to be the enterprise's biggest resource<sup>2</sup>.

<sup>1</sup> B. Siuta-Tokarska, *Podobieństwa i różnice w rozwoju przedsiębiorstw sektora MŚP z kapitałem krajowym i z udziałem kapitału zagranicznego w Polsce. Analiza i ocena wyników badań*, Difin, Warszawa 2015, p. 61.

<sup>2</sup> T. Sapeta, *Kapitał ludzki w organizacji* [in:] *Zarządzanie zasobami ludzkimi: tworzenie kapitału ludzkiego organizacji*. H. Król, A. Ludwicyński, PWN, Warszawa 2006, p. 119.

Activating the potential in people is a very complex action, which requires knowledge and abilities to motivate so that the organisation's aims could be fully achieved and that the climate of an organisation supporting development could be created. In every organisation it should be remembered that the more needs work satisfies, the more it motivates people. The knowledge of this issue and the ability to use the theory of motivation in the management practice are believed by the theoreticians of organisation and management to be the most important competences.

## **The essence of motivating and its significance in the process of work**

The problem of motivating workers has been for many years a very significant issue both in scientific discussions and in everyday actions of practitioners<sup>3</sup>. The knowledge of motivating is of interdisciplinary nature. It is the subject of research concerning the organisation and its management, because the level of people's commitment to achieving organisation's aims determines how effective the organisation is. Also the psychology of management<sup>4</sup> or psychology of work<sup>5</sup>, disciplines which originated on the basis of organisation and management theories, social psychology and other social sciences pay a lot of attention to the processes of motivation and motivating.

To understand better the essence of the problem – managing by motivating – it is worth going back to theoretical basis and looking at the definition of the notion of “motivating”.

It is important to differentiate between motivating, which is a term used in management, and motivation, which is a psychological notion. Motivation shows the state – has an attributive dimension; motivating, on the other hand, is of functional nature<sup>6</sup>. Motivating concerns influencing the behaviour of workers with the use of such stimuli that could be by them transformed into action in accordance with the aims of the organisation<sup>7</sup>.

Motivating is always of personal character: we motivate somebody to something. We can and even should motivate ourselves<sup>8</sup>. Motivating yourself, according to M. Armstrong [...] is about setting the direction independently and then taking a course of action which will ensure that you are there<sup>9</sup>.

Motivating yourself means, according to M. Armstrong, the ability to set yourself clearly defined goals and undertake actions to fulfil them. It is the best type of motivation if the direction of actions is right, desirable for the organisation. However, people who are highly self-motivated are a minority, the majority of people need extrinsic motivation by various stimuli, e.g. remuneration, possibilities to develop or a reward. Providing these stimuli is the role of the management. Intrinsic motivation gives deeper and more constant results. By using extrinsic motivators it is possible to achieve immediate results, but usually less durable<sup>10</sup>.

Motivating to work is one of the most difficult functions of management. According to S. Borkowska, motivating is the process of conscious and deliberate influencing motives and actions of people at work by creating for them such conditions and opportunities that they are able to follow systems of values and fulfil expectations in order to achieve a motivating aim<sup>11</sup>.

<sup>3</sup> Z. Nieckarz, *Psychologia motywacji w organizacji*, Wyd. Difin, Warszawa 2011, p. 185.

<sup>4</sup> G. Bartkowiak, *Psychologia zarządzania*, Wydawnictwo Zachodnie Centrum Organizacji, Łódź 2003.

<sup>5</sup> X. Gliszczyńska, *Motywacja do pracy*, Książka i Wiedza, Warszawa 1981.

<sup>6</sup> A. Pietroń-Pyszczek, *Motywowanie pracowników – wskazówki dla menedżerów*, Marina, Wrocław 2007, p. 10.

<sup>7</sup> W. Kopertyńska, *Motywowanie pracowników – teoria i praktyka*, Placet, Warszawa 2008, p. 18.

<sup>8</sup> T. Oleksyn, *Zarządzanie zasobami ludzkimi w organizacji*. Wydawnictwo Wolters Kluwer, Warszawa 2017, p. 297.

<sup>9</sup> Armstrong M., Taylor S., *Zarządzanie zasobami ludzkimi*, Wolters Kluwer Polska, Warszawa 2016.

<sup>10</sup> Armstrong M., *Zarządzanie...*, op. cit., pp. 107-110.

<sup>11</sup> P. Borkowska, *System motywowania w przedsiębiorstwie*, PWN, Warszawa 1985, p. 9.



People are motivated when they expect that what they do will most probably lead to achieving the aim and getting a valuable reward, which can be for example need satisfaction<sup>12</sup>. Motivating comes down to using specific stimuli in the process of management. They are an element of motivating subordinates and should in a positive way, so according to the established aim, shape the behaviour of the members of an organisation<sup>13</sup>.

R.W. Griffin indicates that motivating is [...] the set of forces that cause people to behave in certain ways<sup>14</sup>. The aim of the manager is to make the worker put in the job the maximum effort as often as possible and as seldom as possible do it with minimal commitment. It is a difficult task because motivation is a very complex process. Achievements at work depend on the following factors: the willingness to work – so motivation, worker's abilities to do it and the working environment, that is tools, materials, necessary information. The manager must diagnose each of these elements to see their influence on the achieved results<sup>15</sup>.

Z. Jasiński, on the other hand, thinks that motivating means affecting workers through various means so that their actions are in accordance with the will of the manager, and so that they aim to fulfil given tasks. Motivating is then a process which is of bilateral character<sup>16</sup>. Its basic significance in the company can be brought down, in a general sense, to combining interests of two basic socio-professional groups, that is workers and managers<sup>17</sup>. It is a problem of the organisation to influence workers in such a way that they would do their job highly committed and thinking about the interest of the organisation<sup>18</sup>.

M. Goldsmith, C. Greenberg, A. Robertson and M. Hu-Chan state that motivating people in their workplace means helping them so that they could achieve the best results [...] and develop together with the organisation<sup>19</sup>. Therefore a well construed motivating system should enable workers to satisfy their needs, at the same time encouraging them to engage into achieving the goal of the organisation. R. L. Ackoff pays attention to this, and he notices that the effectiveness of workers can be maximised only when what has value for them is not in opposition to what has value for the organisation<sup>20</sup>.

The fullest definition, with practical values, has been presented by L. Haber. He defines motivating as [...] an individualised approach of a manager towards the worker, infiltrating his system of needs and expectations, creating suitable working conditions and choosing the best way of managing, thanks to which the work done by him/her can be the basis for achieving company's aims and at the same time satisfy his/her needs and expectations<sup>21</sup>.

This definition shows the complexity of motivating stimuli and bilateral benefits of using them – achieving aims of workers and the organisation.

The definitions above describe the contemporary understanding of the function of motivating. The approach to it has changed together with the evolution of the theory of organisation and management. To sum up, undoubtedly motivating is a process which uses suitably chosen tools in order to get the desired effect which is a properly executed action by a chosen person. Motivation makes a person act

<sup>12</sup> M. Armstrong, *Zarządzanie ludźmi – praktyczny poradnik dla menedżerów liniowych*, Dom Wydawniczy Rebis, Poznań 2007, p. 33.

<sup>13</sup> L. H. Haber, *Management. Zarys zarządzania małą firmą*, Wydawnictwo Profesjonalnej Szkoły Biznesu, Kraków 1993, p. 144.

<sup>14</sup> R. W. Griffin, *Podstawy zarządzania organizacjami*, Wydawnictwo Naukowe PWN, Warszawa 2010, p. 457.

<sup>15</sup> Ibidem, p. 458.

<sup>16</sup> *Motywowanie w przedsiębiorstwie, uwalnianie ludzkiej produktywności*, Z. Jasiński (ed.), Placet, Warszawa 1998, p. 16.

<sup>17</sup> Cz. Zając, *Zarządzanie zasobami ludzkimi*, Wydawnictwo Wyższej Szkoły Bankowej, Poznań 2007, p. 115.

<sup>18</sup> G. Aniszewska, *Kultura organizacyjna w zarządzaniu*, PWE, Warszawa 2007, p. 133.

<sup>19</sup> M. Goldsmith, C. L. Greenberg, A. Robertson, M. Hu – Chan, *Globalni liderzy – kolejna generacja*, MT Biznes, Warszawa 2007, p. 65.

<sup>20</sup> R. L. Ackoff, *Zarządzanie w małych dawkach*, Wydawnictwo naukowe PWN, Warszawa 1993, p. 37.

<sup>21</sup> L. H. Haber, *Management*, op.cit., p. 144.

and makes him/her do various things, taking into consideration the aim which he/she wants to achieve. It is the sum of everything that makes us act.

#### Review of motivation theories

There have been many various motivation theories so far, and each of them aims to explain what people are and what they can become if they are influenced by motivating factors. It is very useful to know these theories if we want to understand the mechanisms of people functioning in an organisation. What is also important is that thanks to this variety of theories it is possible to perfect an individual and the process of managing the dynamics of life of a given organisation is much simpler<sup>22</sup>.

We can find various divisions of theories of motivation and motivating in the literature, such as the division into<sup>23</sup>:

- 1) early theories connected with the classical school of economics, movement of scientific management, administration and human relations trend,
- 2) theories concentrating on motivation as a subject matter, among which we can differentiate:
  - *content* theories of motivation emphasise the significance of internal factors which make a person behave in a given way (“What motivates people?”),
  - *process* theories of motivation define in what way and by what aims individuals are motivated (“How are people motivated?”),
  - theories of motivation *based on the reinforcement concept* are based on the conviction that all human behaviour is controlled by the outcomes of this behaviour.

A traditional motivation model connected with F. W. Taylor and the school of scientific management opens the list of early theoretical concepts<sup>24</sup>. It emphasised developing the remuneration system, however other motivators were also present, in particular connected with better organisation of work and ergonomics<sup>25</sup>. The creators of this model assumed that people driven by benefits will carry out orders of the management and will undertake any job which will make their income grow<sup>26</sup>. The traditional approach was based also on the conviction that for the majority of people work is something unpleasant and the money income is for workers more important than the work itself<sup>27</sup>. From the point of view of the organisation, the production maximisation depended on creating a system of remuneration in which salaries differ depending on the levels of the work results. The higher they are, the higher the individual salary is<sup>28</sup>.

Critics of F. W. Taylor pointed out that it is difficult to establish the real influence of the material stimuli because of their connection with working conditions, attitude at work, working group and the nature of work, all having as well considerable motivating significance<sup>29</sup>.

Contrary to now popular beliefs, the schools of scientific management did not limit motivating to remuneration, but promoted and implemented many engineering actions influencing working conditions, which undoubtedly had motivational significance as well<sup>30</sup>.

The research done by H. Fayol and M. Weber reached outside the production sphere and included among others administration clerks, creating at the same time foundations for administration direction.

<sup>22</sup> J. A. F. Stoner, R.E. Freeman, D. R. Gilbert, *Kierowanie*, PWE, Warszawa 2001, p. 335.

<sup>23</sup> A. Walecka, *Podstawy motywowania pracowników*, [in:], *Podstawy zarządzania*, ed. A. Zakrzewska-Bielawska, Wydawnictwo Nieoczywiste, Piaseczno 2017, p. 328.

<sup>24</sup> L. Krzyżanowski, *Podstawy nauk organizacji i zarządzania*, PWN, Warszawa 1994, p. 78.

<sup>25</sup> T. Oleksyn, *Zarządzanie...*, p. 304.

<sup>26</sup> M. Juchnowicz, *Motywowanie w toku pracy*, [in:] *Zasoby ludzkie w firmie*, ed. A. Sajkiewicz, Poltext, Warszawa 2000, p. 206.

<sup>27</sup> M. Kostera, P. Kownacki, *Kierowanie zachowaniami organizacyjnymi*, [in:] *Zarządzanie. Teoria i praktyka*, ed. A. K. Koźmiński, W. Piotrowski, Wydawnictwo Naukowe PWN, Warszawa 2000, pp. 401-417.

<sup>28</sup> E. McKenna, N. Beech, *Zarządzanie zasobami ludzkimi*, Felberg SJA, Warszawa 1999, p. 188.

<sup>29</sup> A. Benedykt, *Motywowanie pracowników w sytuacjach kryzysowych*, Astrum, Wrocław 2003, p. 22.

<sup>30</sup> T. Oleksyn, *Zarządzanie...*, op. cit., p. 307.

H. Fayol drew attention to the significance of fair remuneration of workers in an organisation, a human, friendly approach, subordinating personal interest to common interest, and work discipline. The name of M. Weber is associated with the theory of bureaucracy in which there are, among others, the rules of: competence, hierarchy, formalisation and effectiveness. Employees of such an organisation are qualified, independent, rewarded and promoted according to their achievements at work.

A theory contrary to the assumption of scientific management is the model of interpersonal relationships proposed by E. Mayo and his associates. Their research initiated the Human Relations school and provided the basis for future research of workers' satisfaction and factors which affect this satisfaction.

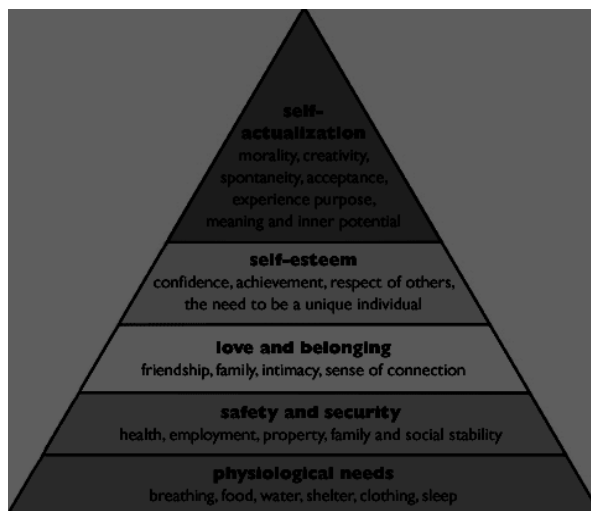
## Content theories

The first among the theories concentrating on motivation as a subject matter is motivating which concentrates on the content. Creators of this theory looked for answers to the questions about what needs people want to satisfy thanks to professional work and what makes them do different activities. According to the content theories, people feel some needs or feel they are not satisfied, which can take on two forms<sup>31</sup>:

- 1) absolute deprivation, caused by the lack of food, cover, sleep, shelter or recognition at work,
- 2) relative deprivation, appearing as the comparison of our own condition with the condition of co-workers, situation of others at work.

One of the most well known concepts of motivation is the famous pyramid of needs by Abraham Maslow. According to it, people are motivated by the hierarchical system of five basic needs, placed in the order of their satisfaction. A. Maslow claimed that until the need of the lower level is satisfied, referring to the needs of the higher level is not very effective. If the need of the level has been satisfied, it stops being the source of motivation

Figure 1: Hierarchy of needs by Abraham Maslow



Source: <http://www.researchhistory.org/2012/06/16/maslows-hierarchy-of-needs/>

<sup>31</sup> J. Penc, *Motywowanie w zarządzaniu*, Wydawnictwo Profesjonalnej Szkoły Biznesu, Kraków 2000, p.145.

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However, scientific research revealed some weaknesses and lacks in the theory of the pyramid of needs of A. Maslow, that is<sup>32</sup>:

- not always all workers have all five levels of needs,
- not always their order is the same as the one postulated by A. Maslow,
- representatives of various cultures might have different categories and hierarchies of needs.

The comments above do not change the fact that the presented hierarchy is a useful tool of categorising human needs and ways of their satisfaction. It is a good way to make sure that all the groups of needs have been taken into consideration. It also helps realise how great the individual differences between people can be and connected with it motives for their actions, how many various biological, psychological, social factors affect the creation of needs of individuals.

The ERG theory was created in response to the criticism directed at the theory of A. Maslow. Its author is C. Alderfer and he divided needs into three categories (and not five like Maslow):

- a) existence needs,
- a) relatedness needs,
- b) growth needs<sup>33</sup>.

According to C. Alderfer, fulfilling lower needs is not the necessary condition to the appearance of higher needs<sup>34</sup>. In the ERG theory these are the following needs<sup>35</sup>:

- 1) existence needs – connected with physiological, material conditions essential to life (they match the physiological and safety needs mentioned in the hierarchy of needs by Maslow),
- 2) relatedness needs – connected with desires whose satisfying ensures proper human relations (Maslow calls them needs of love and belonging),
- 3) needs of development – concern enriching personality and the increase of competences in the area of professional and private life (they include the self-actualisation needs by Maslow).

The ERG theory assumes that a human action can be caused by a few categories of needs at the same time. If a given need is not satisfied, then the person will feel frustrated, will go to the lower level of needs and will start looking for new ways of fulfilling the needs of the lower level<sup>36</sup>.

It can be therefore said that the ERG theory helps to understand the behaviour of workers, which in turn helps managers to react more flexibly to workers' needs and pacify frustration if it is not possible to satisfy the appearing needs<sup>37</sup>.

Nowadays the main advocate for the needs theory is David McClelland. It results from his research that we have a strong need for accomplishments and it is intensified by the external environment and leads to high efficiency at work<sup>38</sup>.

Another well known content theory is the two-factor theory of motivation by F. Herzberg. It explains how satisfaction or dissatisfaction from work develops under the influence of two independent sets of factors, called motivators and hygiene factors. The following hygiene factors have been differentiated<sup>39</sup>:

- 1) company policies and quality of management,
- 1) performance control,

<sup>32</sup> R. W. Griffin, *Podstawy zarządzania organizacjami*, Wydawnictwo Naukowe PWN, Warszawa 2010, p. 522.

<sup>33</sup> L. Koziół, *Motywacja w pracy – determinanty ekonomiczno-organizacyjne*, Wydawnictwo Naukowe PWN, Warszawa – Kraków 2002, p. 28.

<sup>34</sup> M. Juchnowicz, *Motywowanie...*, op. cit., p. 209.

<sup>35</sup> L. Koziół, *Motywacja...*, op. cit., p. 42.

<sup>36</sup> R. W. Griffin, *Podstawy...*, op. cit., pp. 523 – 524.

<sup>37</sup> L. Koziół, *Motywacja...*, op. cit., p. 42.

<sup>38</sup> R. E. Franken, *Psychologia motywacji*, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2005, p. 149.

<sup>39</sup> T. Oleksyn, *Zarządzanie...*, op. cit., p. 313.

Table 1: Theory X and Y of McGregor

THEORY X	THEORY Y
The man dislikes work and if it is possible, he will avoid it.	Work is indispensable for psychological development of the man.
The man must be made to or bribed in order to undertake the effort.	The man wants to be interested in work and in suitable conditions can enjoy it.
The man has to be directed because he does not take responsibility but avoids it.	The man directs himself towards acceptable aims.
-----	In suitable conditions the man looks for responsibility and undertakes it.
-----	Internal discipline is more efficient and may be more severe than external discipline.
The man is motivated mainly by money.	In suitable conditions the man is motivated by the desire to realise their potential.
The man is motivated mainly by his fear for his safety.	-----
People are generally not creative – and it does not apply only to avoiding rules of management.	Creativity and resourcefulness are common phenomena and generally not used enough.

Source: G. Steward, *Skuteczne zarządzanie sprzedażą*, Wydawnictwo Profesjonalnej Szkoły Biznesu, Kraków 1996.

- 2) relations with supervisors,
- 3) “horizontal” relations,
- 4) relations with subordinates,
- 5) salary,
- 6) security,
- 7) personal life,
- 8) working conditions,
- 9) status.

On the other hand, to motivators, so factors creating satisfaction, belong<sup>40</sup>:

- 1) achievement,
- 1) recognition,
- 2) advancement,
- 3) “the work itself”,
- 4) personal growth,
- 5) responsibility.

According to researchers both groups of factors should be taken into consideration while creating work relations and motivating systems.

F. Herzberg realised that even total elimination of the negative effect of the hygiene factors will not ensure workers’ motivation, it may only minimise their level of dissatisfaction from work. It is possible to get motivation only by activating motivators<sup>41</sup>.

<sup>40</sup> Ibidem.

<sup>41</sup> A. Sajkiewicz, Ł. Sajkiewicz, *Nowe metody pracy z ludźmi. Organizacja procesów personalnych*, Poltext, Warszawa 2002, p. 202.

The presented theory, despite many discussions, has had a great influence on the practice of managing. A more perspective approach – internal motives connected with being interested in the work itself – eliminated the dominating reasoning that the basis of motivating should be external incentives<sup>42</sup>.

The next theory developed by McGregor puts emphasis on the distinctness of the essence of human behaviour and ambivalence of concepts of managers concerning their subordinates. The researcher presented two contradictory theories concerning the human nature<sup>43</sup>, which are presented in the table below.

The content motivation theories, concentrating exclusively on individual needs, do not explain why workers react to some conditions and some not, or in what way people show activity in order to satisfy the needs they feel.

### Process theories

Process motivation theories deal with how motivation is created<sup>44</sup>. Such an approach concentrates on explaining why people choose some variations of behaviour to satisfy their needs and how they evaluate their satisfaction after achieving their aims. Expectancy theories and equity theories can be included in popular process theories of motivation<sup>45</sup>.

According to expectancy theories motivation depends on two factors: how much a person wants something and the expected probability of satisfying this desire<sup>46</sup>. Theses formulated by V. Vroom and described by D. Nadler and E. Lawler are based on four assumptions concerning human behaviour in an organisation:

1. the behaviour is indicated by the combination of factors happening to a given person and in their environment,
1. behaviour of individuals is the result of conscious decisions,
2. people have different needs, desires and aims,
3. the choice of given behaviour depends on expectations of achieving desirable effect of this behaviour<sup>47</sup>.

The expectancy theory of motivation indicates that motivation requires effort and this, connected with possibilities and abilities of the worker and factors from the environment, makes it possible for them to get achievements at work. Achievements give different results and a variable called value is connected with each of them. The interdependence of the instrumentality of results and expected value and their function develops the motivation of workers<sup>48</sup>. According to this theory the manager must learn the expectations of workers in order to be able to influence their motivation. Also, when rewarding, not only effects should be taken into consideration but also effort which has to be put into it. Money influences – through bonuses, commissions – will be ineffective, if workers decide that the promised money is not worth their effort<sup>49</sup>.

<sup>42</sup> H. Steiman, G. Schreyogg, *Zarządzanie. Podstawy kierowania przedsiębiorstwem. Koncepcje, funkcje, przykłady*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2001, p. 367.

<sup>43</sup> G. Steward, *Skuteczne zarządzanie sprzedażą*, Wyd. Profesjonalnej Szkoły Biznesu, Kraków 1996, [in:] *Zarządzanie przez motywowanie – motywująca rola dyrektora placówki oświatowej*, ed. M. Dobrowolska-Wesołowska, <http://zn.wsbip.edu.pl/wydania/zeszyt1/sekcjaA/1.pdf>, [access: 10.12.2017].

<sup>44</sup> W. Bańka, *Operacyjne kierowanie pracownikami w organizacjach*, Wydawnictwo Adam Marszałek, Toruń 2007, p. 527.

<sup>45</sup> Cz. Zając, *Zarządzanie...*, op. cit., p. 124.

<sup>46</sup> A. F. Stoner, R. E. Freeman, D. R. Gilbert, *Kierowanie...*, op. cit., p. 441.

<sup>47</sup> Cz. Zając, *Zarządzanie...*, op. cit., pp. 124–125.

<sup>48</sup> L. Kozioł, *Motywacja...*, op. cit., p. 46.

<sup>49</sup> T. Oleksyn, *Zarządzanie...*, op. cit., p. 316.

J. S. Adams developed the equity theory, also called social exchange theory. He assumed that the main factor of motivation, effectiveness and work satisfaction is individual assessment by the worker of justice, or fairness, of getting a reward<sup>50</sup>. J. S. Adams claimed that comparing oneself with others is a personality trait of human nature<sup>51</sup>. In this theory equity is the conviction that the worker is treated identically to other people in the organisation who are in the same situation<sup>52</sup>. According to it, workers constantly look for psychological balance between the work effort and rewards they get. If they see imbalance, they undertake actions to correct the inequity. Depending on where the imbalance is, it can mean increasing effort or requiring new benefits.

The presented theory, though has some weaknesses, states that work satisfaction in considerable degree is dependent on how the individual sees themselves against other workers. The process is susceptible to many mistakes and distortions. The work inputs of other people and rewards which they get are assessed according to one's own perception. The activities done by individual workers can differ considerably. The relation between work effort and received rewards is therefore sometimes difficult to assess. Managers should realise these things so that they could undertake actions preventing the decrease of worker motivation in time.

### Reinforcement theory

Reinforcement theories are concerned with the influence of results of previous actions in the future, in the cyclic process of learning<sup>53</sup>. The reinforcement theory is also called the theory of behaviour modification or learning theory and is associated with the psychologist B. F. Skinner<sup>54</sup>. He sees the sources of motivation in people's need to repeat actions which in the past brought them positive feelings,

Table 2: Elements of reinforcement theory

<b>The system of reinforcement conditions</b>	
<b>1. Positive reinforcement</b> Reinforcing the behaviour by giving it desirable outcomes	<b>3. Extinction</b> Weakening the behaviour by not allowing desirable outcomes
<b>2. Teaching avoidance</b> Reinforcing the behaviour by allowing avoiding undesirable outcomes	<b>4. Punishment</b> Weakening the behaviour by giving it undesirable outcomes
<b>Schedules of reinforcement</b>	
<b>1. Fixed interval</b> Reinforcement used in constant time periods, regardless of behaviour	<b>3. Fixed ratio</b> Reinforcement used after the set number of responses, regardless of time
<b>2. Variable interval</b> Reinforcement used in changeable time periods, regardless of behaviour.	<b>4. Variable ratio</b> Reinforcement used after changeable number of responses, regardless of time.

Source: R. W. Griffin, *Podstawy zarządzania organizacjami*, Wydawnictwo Naukowe PWN, Warszawa 2010, p. 536.

<sup>50</sup> A. F. Stoner, R. E. Freeman, D. R. Gilbert, *Kierowanie...*, op. cit., p. 439.

<sup>51</sup> N. Stevenson, *Motywowanie pracowników. Praktyczny poradnik dla tych, którzy nie lubią tracić czasu*, Liber, Warszawa 2002, p. 11.

<sup>52</sup> Z. Sekuła, *Motywowanie do pracy, teoria i instrumenty*, PWE, Warszawa 2008, p. 18.

<sup>53</sup> A. Pietroń – Pyszczyk, *Motywowanie...*, op. cit., p. 22.

<sup>54</sup> A. F. Stoner, R. E. Freeman, D. R. Gilbert, *Kierowanie...*, op. cit., p. 362.

so rewards, and avoiding those whose results were negative or are associated with something not nice<sup>55</sup>. According to this theory, all learning happens on the basis of reinforcement. What is important in motivation is not only the type of reinforcement but also the choice of the proper moment and frequency of reinforcement<sup>56</sup>.

Although the theory met with criticism because of its simplifications, it is indeed very useful. There is a number of positive and negative reinforcements which make it more or less probable that the worker will continue their behaviour. Desirable behaviour, if met with rewards, will probably be continued and at the same time punished unwanted behaviour will be stopped. Contemporary management theories emphasise that positive reinforcements need to be used, limiting using punishments, that is negative motivation.

The presented motivation theories provide information concerning the factors which stimulate people to work. Thanks to understanding them the manager can suitably create the degree of the level of commitment of workers getting from them what is the most valuable.

## Conclusion

The success of contemporary management requires a contemporary method of managing organisations and adaptation to the changing conditions resulting from the changes that are happening in the world economy. Competitiveness and the company development depend above all on the suitably composed and motivated team of workers. Effective motivating requires constant updating the knowledge of workers and conditions of functioning the organisation. A motivated person brings to the organisation not only knowledge, skills or experience but also commitment to the company's issues. The company which wants to achieve success should take care of their most valuable assets, that is workers.

Although there are many various motivation theories, in practice it is difficult to create such a system of motivating workers that would be good in all conditions. There is no one solution how to effectively motivate people because the process is conditioned by various internal or external factors in organisation and the chosen theories and views on the basis of literature of the subject are only an indication.

It is good to realise that the concept of motivation reaches way beyond the single organisation, touching upon the concepts of responsibility for the creation of the world in which everyone would like to live.

## Bibliography

1. Ackoff R. L., *Zarządzanie w małych dawkach*, Wydawnictwo naukowe PWN, Warszawa 1993.
2. Aniszewska G., *Kultura organizacyjna w zarządzaniu*, PWE, Warszawa 2007.
3. Armstrong M., *Zarządzanie ludźmi – praktyczny poradnik dla menedżerów liniowych*, Dom Wydawniczy Rebis, Poznań 2007.
4. Amstrong M., Taylor S., *Zarządzanie zasobami ludzkimi*, Wolters Kluwer Polska, Warszawa 2016.
5. Bańka W., *Operacyjne kierowanie pracownikami w organizacjach*, Wydawnictwo Adam Marszałek, Toruń 2007.
6. Bartkowiak G., *Psychologia zarządzania*, Wydawnictwo Zachodnie Centrum Organizacji, Łódź 2003.
7. Benedykt A., *Motywowanie pracowników w sytuacjach kryzysowych*, Astrum, Wrocław 2003.
8. Borkowska S., *System motywowania w przedsiębiorstwie*, PWN, Warszawa 1985.
9. Franken R. E., *Psychologia motywacji*, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2005.
10. Gliszczyńska X., *Motywacja do pracy*, Książka i wiedza, Warszawa 1981.

<sup>55</sup> W. Kopertyńska, *Motywowanie...*, op. cit., p. 29.

<sup>56</sup> R. W. Griffin, *Podstawy...*, op. cit., pp. 536–537.



11. Goldsmith M., Greenberg C. L., Robertson A., Hu – Chan M., *Globalni liderzy – kolejna generacja*, MT Biznes, Warszawa 2007.
12. Griffin R. W., *Podstawy zarządzania organizacjami*, Wydawnictwo Naukowe PWN, Warszawa 2010.
13. Haber L. H., *Management. Zarys zarządzania małą firmą*, Wydawnictwo Profesjonalnej Szkoły Biznesu, Kraków 1996.
14. Jasiński Z. (ed.), *Motywowanie w przedsiębiorstwie, uwalnianie ludzkiej produktywności*, Placet, Warszawa 1998.
15. Juchnowicz M., *Motywowanie w toku pracy*, [in:] *Zasoby ludzkie w firmie*, ed. A. Sajkiewicz, Poltext, Warszawa 2000.
16. Kopertyńska W., *Motywowanie pracowników – teoria i praktyka*, Placet, Warszawa 2008.
17. Kostera M., Kownacki S., *Kierowanie zachowaniami organizacyjnymi*, [in:] *Zarządzanie. Teoria i praktyka*, ed. A. K. Koźmiński, W. Piotrowski, Wydawnictwo Naukowe PWN, Warszawa 2000.
18. Koziół L., *Motywacja w pracy – determinanty ekonomiczno-organizacyjne*, Wydawnictwo Naukowe PWN, Warszawa – Kraków 2002.
19. Krzyżanowski L., *Podstawy nauk organizacji i zarządzania*, PWN, Warszawa 1994.
20. McKenna E., Beech N., *Zarządzanie zasobami ludzkimi*, Felberg SJA, Warszawa 1999.
21. Nieckarz Z., *Psychologia motywacji w organizacji*, Wyd. Difin, Warszawa 2011.
22. Oleksyn T., *Zarządzanie zasobami ludzkimi w organizacji*, Wydawnictwo Wolters Kluwer, Warszawa 2017.
23. Penc J., *Motywowanie w zarządzaniu*, Wydawnictwo Profesjonalnej Szkoły Biznesu, Kraków 2000.
24. Pietroń-Pyszczek A., *Motywowanie pracowników – wskazówki dla menedżerów*, Marina, Wrocław 2007.
25. Sajkiewicz A., Sajkiewicz Ł., *Nowe metody pracy z ludźmi. Organizacja procesów personalnych*, Poltext, Warszawa 2002.
26. Sapeta T., *Kapitał ludzki w organizacji*, [in:] *Zarządzanie zasobami ludzkimi: tworzenie kapitału ludzkiego organizacji*, ed. H. Król, A. Ludwicyński, PWN, Warszawa 2006.
27. Sekuła Z., *Motywowanie do pracy, teoria i instrumenty*, PWE, Warszawa 2008.
28. Siuta – Tokarska B., *Podobieństwa i różnice w rozwoju przedsiębiorstw sektora MŚP z kapitałem krajowym i z udziałem kapitału zagranicznego w Polsce. Analiza i ocena wyników badań*, Difin, Warszawa 2015.
29. Steiman H., Schreyogg G., *Zarządzanie. Podstawy kierowania przedsiębiorstwem. Koncepcje, funkcje, przykłady*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2001.
30. Steward G., *Skuteczne zarządzanie sprzedażą*, [in:] *Zarządzanie przez motywowanie – motywująca rola dyrektora placówki oświatowej*, ed. M. Dobrowolska – Wesółowska, Wyd. Profesjonalnej Szkoły Biznesu, Kraków 1996, <http://zn.wsbip.edu.pl/wydania/zeszyt1/sekcjaA/1.pdf>, [access: 10.12.2017].
31. Stevenson N., *Motywowanie pracowników. Praktyczny poradnik dla tych, którzy nie lubią tracić czasu*, Wyd. Liber, Warszawa 2002.
32. Stoner J. A. F., Freeman R. E., Gilbert D. R., *Kierowanie*, PWE, Warszawa 2001.
33. Walecka A., *Podstawy motywowania pracowników*, [in:] *Podstawy zarządzania*, ed. A. Zakrzewska-Bielawska, Wydawnictwo Nieoczywiste, Piaseczno 2017.
34. Zajac Cz., *Zarządzanie zasobami ludzkimi*, Wydawnictwo Wyższej Szkoły Bankowej, Poznań 2007.



## **PART II**



# **ENTERPRISES' RESTRUCTURING – LEGAL, ECONOMIC AND SOCIAL ASPECTS**



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# RESTRUCTURING ENTERPRISES IN THE LIGHT OF THE POLISH LEGAL REGULATIONS

## *Summary*

*It is unquestionable that in the modern market economy there exists the need for continuous changes that raise the effectiveness of management. This requires executing restructuring processes on a macro- and micro-scale, in this way concerning all types of enterprises. One can notice here quite common agreement that the objective of restructuring is adapting an enterprise to transformations that take place in its environment as well as improving or maintaining its market competitiveness. It is believed that the basic reason for the enterprise's initiation of the restructuring process is exceptional dynamics of contemporary phenomena and processes. However, one cannot omit the fact that restructuring is also frequently induced by abrupt changes within the enterprise itself. For this reason, this paper justifiably undertakes this significant and current issue and provides basic definitions of restructuring. It continues to focus on manners of executing the restructuring processes in Poland. The Author pays attention to legal regulations of the execution of restructuring processes in Poland, makes generalisations of the analysed issue and postulates conclusions resulting from earlier deliberations.*

**Key words:** *restructuring, effectiveness, economic resources, objectives of restructuring, legal basis of restructuring, managing transformations in an enterprise*

\* \* \*

## **Introduction**

Restructuring is an absolute necessity in the conditions of modern market economy. This results from the fact that the need for continuous transformations undertaken in order to raise management effectiveness concerns all enterprises and the entire national economy. Literature is consistent to some extent that the objective of restructuring is adapting an enterprise to transformations that take place in its environment as well as improving (or maintaining) its market competitiveness. A change of that sort is sometimes describes as radical. It is believed that the main reason for the enterprise's initiation of restructuring processes is the exceptional dynamins of phenomena and processes existing on the contemporary market. It is frequently induced by abrupt changes within the enterprise itself. Thus, this paper justifiably makes a detailed analysis of the issue of restructuring. It presents basic definitions

of restructuring that are in common use in the specialist literature. However, the Author pays special attention to the objectives of restructuring and legal regulations that apply to restructuring processes in Poland. The conclusion provides generalisations of earlier deliberations and the resulting conclusions.

## General remarks on the essence of the restructuring process in enterprises

A common feature of definitions provided by literature is the assertion that restructuring is a change of a radical (profound) character. It is costly as well. This fact is reflected not only in the financial, but also social aspect. This change has to be understandable and acceptable both to the company's customers and its employees in order to expect its effectiveness. As a matter of fact, without social approval, restructuring and remedy measures should not be undertaken.<sup>1</sup>

Still, restructuring is perceived in many different ways, in particular with regard to the size of the enterprise, the scale of the existing problem and the objective of restructuring. Restructuring processes of the enterprises undergo various transformations in terms of their size, kind and direction. They shape the current and future proprietary, capital, organisational as well as economic and financial situation. While analysing the implemented changes, areas and effects of enterprise restructuring, one should remember that the appearance of even the same kinds of effects will be diversified in terms of the scope and scale in specific enterprises. These are in fact a derivative of the effect of various organisational elements of the company. They also result from a mutual interaction of technical and organisational problems with the economic ones. Usually they tend to appear at different times. Therefore, some of them may appear quite fast. Other may come to existence only after some time.

A characteristic feature of the effects of restructuring is the fact that their size, scale and areas of existence considerably depend on the type and material scope of restructuring.<sup>2</sup> However, the disclosed transformations resulting from the restructuring process, always express themselves in a more effective than previously – use of the existing possibilities and conditions of the enterprise's development. Restructuring is a radical change in at least one (among three basic) dimensions of an organisation, namely within the enterprise's operations, capital structure or internal organisation. The objective of such a transformation is restoring this enterprise's internal balance and (or) balance in terms of its interaction with the surrounding environment. In the most general sense, restructuring may be described as "*the process of system-based proprietary, organisational, economic, financial and technical transformations that are adjusted to an effective execution of objectives posed to an enterprise*".<sup>3</sup>

Restructuring also means professional diagnostic and project proceedings. It is aimed at improving the management and operational systems of the enterprise. These changes mostly refer to transformations taking place in the enterprise's organisational form, management systems and human resources.<sup>4</sup> Restructuring can also be called "*a complex process of significant, often fundamental changes in an*

<sup>1</sup> More details on these partnership relations in: R. Borowiecki, T. Rojek (scientific ed.), *Kształtowanie relacji partnerskich i form współdziałania współczesnych przedsiębiorstw. Strategie – Procesy – Narzędzia*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.

<sup>2</sup> Here restructuring processes of enterprises need to be separated from measures aimed at changing the structure of the national economy and the associated resource relocation on a macroscale. Despite apparent similarities there appear significant differences, especially in the methods of implementation, primarily resulting from a different (micro- or macro-) scale of reference. More details in: A. Prokopiuk, A. Maksimczuk, *Zmiany struktury gospodarki i zakres realokacji zasobów w Polsce w początkach transformacji – uwagi ogólne*, [in:] A. Cudowska-Sojko (ed.), *Współczesne wyzwania rozwoju gospodarczego. Polityka i kreacja potencjału. Struktura gospodarki – Rynek pracy – Środowisko i jakość życia*, part II, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2015, pp. 107-129.

<sup>3</sup> K. Wanielista, I. Miłkowska – *Słownik menedżera*, Fraktal, Wrocław 1998, p. 215.

<sup>4</sup> A. Stabryła – *Zarządzanie rozwojem firmy*, Księgarnia Akademicka, Kraków 1995, p. 16.

enterprise, aimed at current (operational) and long-term (strategic) shaping of the attributes of its subjectivity with regard to effective changes in the environment and internal needs of the enterprise itself”.<sup>5</sup>

From a different perspective, restructuring can be considered as “a system-based reconstruction, modernisation, improvement or update of the organisational structure and the principles of the functioning of an enterprise or other subjects of economic research”.<sup>6</sup> It has a complex, multidimensional and long-term character. The occurrence of critical situations in the development of structures affected by restructuring make the premises for its undertaking.<sup>7</sup> Restructuring is “a process of fundamental, profound changes mostly induced by external factors, in other words critical situations, for the development of the structures affected by this process”.<sup>8</sup>

Still, restructuring is most frequently defined as “reconstruction, modernisation and upgrade or adjustment to the contemporary level of technology and the development of the organisational and managerial idea of the enterprise’s or organisation’s structure”.<sup>9</sup> In Polish conditions restructuring used to be associated with privatisation and other macroeconomic transformations.<sup>10</sup> Restructuring is a thought-over – in terms of significant changes taking place in the surrounding – reorientation of the enterprise’s objectives as well as adjusting technology, organisation, economics and human resources for this purpose.<sup>11</sup>

Restructuring is a process of transformations triggered by internal signals critical to the enterprise’s development and originating in its surrounding. It is aimed at creating a competitive enterprise in market dimensions. The subject of this process is an effective organisational, production, economic and technical adjustment as well as potential changes in the legal and ownership status of the enterprise. In a general sense of this part of deliberations, it can be claimed that restructuring is a total of undertakings that aim at changes in the element (area) structure as well as methods of the company’s functioning, and lead to its renewal and improvement in the effectiveness of measures and developmental possibilities.<sup>12</sup> A common ground for all the above definitions is the presentation of restructuring as a process of bringing a change in the enterprise and the national economy.<sup>13</sup>

## What are the most popular assumptions of restructuring objectives?

Restructuring is an inherent part of the functioning of the contemporary enterprise. It allows for restoring an internal balance and a balance with the surrounding to an enterprise by means of fundamental and profound changes. As a consequence, through raising the level of effectiveness of the enterprise’s

<sup>5</sup> C. Suszyński – *Restrukturyzacja, konsolidacja, globalizacja przedsiębiorstw*, PWE, Warszawa 2003, p. 71.

<sup>6</sup> Borowiecki R., *Zarządzanie restrukturyzacją procesów gospodarczych. Aspekt teoretyczno-praktyczny*, Difin, Warszawa 2003, p. 77.

<sup>7</sup> *Ibid.*, p. 77 and further.

<sup>8</sup> S. Chomętowski – *Kierunki i metody oceny oraz realizacji restrukturyzacji przedsiębiorstw*, „Przegląd Organizacji” 1994, No 12, p. 22.

<sup>9</sup> I. Durlik – *Restrukturyzacja procesów gospodarczych. Reengineering. Teoria i praktyka*, Placet, Warszawa 1998, p. 45.

<sup>10</sup> *Ibid.*, p. 45.

<sup>11</sup> Z. Jasiński – *Restrukturyzacja systemu zarządzania przedsiębiorstwem*, „Ekonomika i organizacja przedsiębiorstwa”, 1992, No 8, p. 12.

<sup>12</sup> S. Lachiewicz (ed.), A. Zakrzewska-Bielawska (ed.) – *Restrukturyzacja organizacji i zasobów kadrowych przedsiębiorstwa*, Oficyna Ekonomiczna, Kraków 2005, p. 16.

<sup>13</sup> Some restructuring issues in Poland’s national economy are extensively described in: A. Maksimczuk, *Sektory problemowe i pomoc selektywna a mechanizm kreacji zasobów gospodarczych w Polsce w pierwszej połowie transformacji*, [in:] E. Gruszevska (ed.), *Współczesne wyzwania rozwoju gospodarczego. Polityka i kreacja potencjału. Kreacja – Innowacyjność – Handel zagraniczny*, part I, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2015, p. 25-47.

operations, restructuring leads to the growth of its market value and competitiveness.<sup>14</sup> Thus, the basic objectives of restructuring can be the following:

- improving the company's competitiveness,
- adjusting the company to changes in the surrounding and required flexibility in its functioning,
- ensuring the best possible integration of the planned measures and processes,
- creating a modern organisational culture of the company,
- improving the enterprise's innovativeness.<sup>15</sup>

In the short term, the restructuring process is intended to fulfil the basic aim – bringing the enterprise on the development path directed at changes that take place in its surrounding as well as adjusting the activity to effective functioning in new conditions. Long-term objectives of restructuring are the following:<sup>16</sup>

- improving competitiveness of the enterprise and its products through creating a market competitive advantage with reference to selected elements of its functioning,
- leading to achieving effective economic results, in particular limiting the costs of functioning and generating a profit at a level allowing for the development of the enterprise,
- increasing the enterprise's market value, which expands the circle of potential investors interested in participating in further development.

Therefore, it can be stated that the fundamental objective of restructuring is implementing changes that ensure improvement (or at least retrieval) of its capacity to generate a profit at a level guaranteeing its further development in the long run but in the short term – achieving an adequate positive difference between operating costs and the achieved revenue.<sup>17</sup>

It should be emphasised that factors taken into consideration in all restructuring projects are in particular:<sup>18</sup>

- a dominating supply of high-quality products over demand for products based on latest technologies,
- increasing the level of product complexity,
- launching market innovations,
- changes in the organisation of manufacturing processes,
- shrinking natural resources,
- a growing significance of marketing and strategic management as a result of advancing economy globalisation,<sup>19</sup>
- changes in employees' personal aspirations and their requirements within work organisation,
- unwise use of labour market situations by some entrepreneurs,
- changes in legal conditions in areas connected with the enterprise's activity,

<sup>14</sup> J. Brzóska – Praktyka restrukturyzacji – za i przeciw, [http://dlafirmy.info.pl/articlesFiles/Praktyka\\_restrukturyzacji\\_-\\_za\\_i\\_przeciw.pdf](http://dlafirmy.info.pl/articlesFiles/Praktyka_restrukturyzacji_-_za_i_przeciw.pdf).

<sup>15</sup> J. Brzóska – Praktyka restrukturyzacji – za i przeciw, [http://dlafirmy.info.pl/articlesFiles/Praktyka\\_restrukturyzacji\\_-\\_za\\_i\\_przeciw.pdf](http://dlafirmy.info.pl/articlesFiles/Praktyka_restrukturyzacji_-_za_i_przeciw.pdf).

<sup>16</sup> Cf.: J. Kaczmarek, W. Szymła (scientific ed.), *Teoria i praktyka zarządzania w obliczu nowych wyzwań*, part II. *Innowacyjność i jakość wyznacznikami ścieżki rozwoju przedsiębiorstwa* and part III. *Kształtowanie strategii, przewagi konkurencyjnej i kluczowych kompetencji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015, pp. 81-232.

<sup>17</sup> J. Grzywacz (scientific ed.), *Struktura kapitału w przedsiębiorstwie w warunkach ekspansji, kryzysu i zjawisk upadłościowych*, Oficyna Wydawnicza, Szkoła Główna Handlowa w Warszawie, Warszawa 2015, pp. 11-46.

<sup>18</sup> Cf.: A. Jaki, M. Kowalik (scientific ed.), *Współczesne oblicza i dylematy restrukturyzacji*, part III. *Strategiczne wyzwania i zakresy restrukturyzacji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015, pp. 15-116.

<sup>19</sup> A. Maksimeczuk, *Granice państwowe, relacje z sąsiedztwem gospodarczym i wschodnie pogranicze Polski w dobie transformacji, integracji i globalizacji*, volume 1. *Transformacja systemowa i kształtowanie się nowej jakości polskich granic państwowych*, chapter 1. *Najważniejsze wyzwania cywilizacyjne podjęte przez Polskę u schyłku XX wieku*, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2013, pp. 19-38.



- changing economic factors and governments' approach to restructuring, which requires their close observation,
- taking account of the target shape of the political and economic map of integrating Europe.<sup>20</sup>

While functioning in the atmosphere of uncertainty and continuous confrontation with aggressive competition, enterprises attempt to combine stabilisation with necessary changes. In such a situation they should introduce these modifications well in advance, namely before their competition does that.<sup>21</sup> Success will belong only to those enterprises that, while preserving flexibility in operations, will continue to improve quality as well as launch innovative products and services.

## Legal regulations in terms of restructuring processes in Poland

The Act of 15 May 2015, *the Restructuring Law*<sup>22</sup>, regulates the issue of making an arrangement by an insolvent (or threatened with insolvency) debtor and its creditors as well as the results of these arrangements and conducting curative (remedial) measures. Such restructuring is conducted in the following, restructuring proceedings, pursuant to the above act:

- 1) approval of an arrangement,
- 2) accelerated arrangement procedure,
- 3) arrangement procedure,
- 4) curative procedure.

The objective of restructuring proceedings is avoiding the declaration of the debtor's bankruptcy. This is possible through giving the debtor a possibility of restructuring by means of making an arrangement with his creditors. The curative procedure, in turn, may also involve remedial measures, while securing eligible rights of the creditors.

The provisions of this act apply to:

- 1) entrepreneurs in the meaning of the Act of 23 April 1964 – *the Civil Code*<sup>23</sup>,
- 2) limited liability companies and joint-stock companies that do not conduct a business activity,
- 3) partners of commercial partnerships who incur liabilities towards the partnership with their entire property without limitations,
- 4) partners of partnerships.

The provisions of the act do not apply to:

- 1) the State Treasury and local government units,
- 2) state-owned and mortgage banks,
- 3) insurance companies and reinsurance companies,
- 4) investment funds.

Restructuring proceedings, as mentioned before, can be conducted towards an insolvent debtor or a debtor threatened with insolvency. A definition of an insolvent debtor is provided by the Act of 28

<sup>20</sup> This is connected with possible restructuring of enterprises' export directions. More details in: A. Maksimczuk, A. Prokopiuk, *Geographical Restructuring of Foreign Trade and Challenges in the Improvement of International Competitiveness of the Polish Economy* [in:] R. Borowiecki, B. Siuta-Tokarska (eds.), *Restructuring as the Imperative of Developmental Changes in Economy*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015, pp. 13-32.

<sup>21</sup> J. Kaczmarek, W. Szymła (scientific ed.), *Teoria i praktyka zarządzania w obliczu nowych wyzwań*, part III. *Kształtowanie strategii, przewagi konkurencyjnej i kluczowych kompetencji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015, pp. 155-232.

<sup>22</sup> Journal of Laws of 2015, item 978.

<sup>23</sup> Journal of Laws of 2004, item 121, as amended.

February 2003, *the Bankruptcy Law*<sup>24</sup>. A debtor threatened with insolvency is a debtor whose economic situation indicates its potential insolvency in a short time.

Pursuant to the act, a restructuring plan should include at least<sup>25</sup>:

- 1) an analysis of a debtor's difficult economic situation,
- 2) an initial description and an overview of planned restructuring means and related costs,
- 3) an initial schedule of implementing various restructuring means.

A full restructuring plan should include at least:

- 1) a description of a debtor's enterprise with information on the current and future condition of supply and demand on the market of its activity,
- 2) an analysis of causes of a debtor's difficult economic situation,
- 3) a presentation of a proposed, future strategy for managing a debtor's company with information on the levels and sorts of risks,
- 4) a full description and an overview of planned restructuring tools and related costs<sup>26</sup>,
- 5) a schedule of implementing the planned restructuring means and a final deadline for implementing the restructuring plan,
- 6) information on an indebted enterprise's potential manufacturing capacity, in particular on its possible use and reduction,
- 7) a description of the enterprise's methods and sources of financing restructuring, including the use of the available capital, sale of assets in order to finance restructuring, financial receivables of shareholders and third parties, in particular banks or other creditors, the volume of granted and requested public assistance as well as de minimis aid or de minimis aid in agriculture or fishery, and providing justification for its demand,
- 8) anticipated profits and losses towards operations for the following five years based on at least two outlooks<sup>27</sup>,
- 9) full names of persons responsible for executing the approved arrangement,
- 10) full names of the authors of the draft restructuring plan,
- 11) date of drawing up the restructuring plan<sup>28</sup>.

All matters in restructuring proceedings are settled by the restructuring court, which is the competent district court – the commercial court. Restructuring cases are settled by the court competent for the main seat of a debtor. After the court initiates the restructuring proceedings, further proceedings are conducted by the judge commissioner who manages the course of restructuring. The judge commissioner supervises the activities of the court supervisor and administrator. The judge commissioner also assigns activities which can be conducted by the court supervisor or administrator upon his consent or the consent of the board of creditors. The judge commissioner and the court supervisor or administrator communicate in

<sup>24</sup> Journal of Laws of 2005, item 233 and 978.

<sup>25</sup> Cf.: A. Jaki, M. Kowalik (scientific ed.), *Procesy restrukturyzacji wobec współczesnych przemian gospodarczych*, part II. *Koncepcje i metody restrukturyzacji procesów gospodarczych*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2016, pp. 61–126.

<sup>26</sup> Cf.: J. Kaczmarek, W. Szymła (scientific ed.), *Teoria i praktyka zarządzania w obliczu nowych wyzwań*, part IV. *Zarządzanie finansami, kapitał i funkcje kontrolne przedsiębiorstwie*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015, pp. 233-306.

<sup>27</sup> Cf.: A. Jaki, M. Kowalik (scientific ed.), *Procesy restrukturyzacji wobec współczesnych przemian gospodarczych*, part IV. *Uwarunkowania, przebieg i efekty procesów restrukturyzacji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2016, pp. 195-256.

<sup>28</sup> Articles 9 and 10 of the Act of 15 May 2015 – *The Restructuring Law*, Journal of Laws of 2015, item 978.

matters with regard to restructuring proceedings directly or with the use of technical means of remote, direct communication such as telephone, fax or email<sup>29</sup>.

The court supervisor and administrator in restructuring proceedings can be a natural person with full capacity to legal acts and a restructuring advisor's licence issued pursuant to and in a manner described in the Act of 15 June 2017 – *on a restructuring advisor's licence*<sup>30</sup>. This may also be a commercial company, where the partners incur liabilities towards the partnership with their entire property without limitations or members of the board acting as representatives of the company, who are holders of such a licence<sup>31</sup>. The court supervisor in particular deals with:

- 1) notifying creditors on the initiation of restructuring proceedings,
- 2) drawing up a restructuring plan and a list of receivables,
- 3) assessing arrangement proposals, including – if necessary – counselling within their modifications in order to ensure compliance with the law and the possibility of their execution, undertaking measures aimed at casting by the creditors the largest possible number of votes, participating in the creditors' meeting and submitting an opinion on the possibility to execute the arrangement,
- 4) in accelerated arrangement proceedings – drawing up a list of disputable receivables<sup>32</sup>.

It is worth mentioning that a holder of a restructuring advisor's licence can be a natural person who:

- 1) has nationality of a member state forming the European Union, the Swiss Confederation or the European Free Trade Association (EFTA) – parties to the agreement on the European Economic Area,
- 2) speaks Polish in the extent that allows for performing the activities of a trustee, court supervisor or administrator,
- 3) has full capacity to legal acts,
- 4) has completed higher education and obtained a Master's degree or its equivalent,
- 5) has a good reputation,
- 6) in the period of 15 years before filing an application for a restructuring advisor's licence, managed the property of a bankrupt, a company or its separate unit for at least 3 years,
- 7) has not been convicted of a crime or a fiscal crime,
- 8) is not suspected or accused of a crime prosecuted by public indictment or a fiscal crime,
- 9) is not recorded in the register of insolvent debtors of the National Court Register,
- 10) has passed an exam before the Examination Committee appointed by the Minister of Justice<sup>33</sup>.

Pursuant to the act, participants of the court-supervised restructuring proceedings are:

- 1) the debtor,
- 2) the debtor's personal creditor entitled to unchallenged receivables,
- 3) the debtor's personal creditor entitled to unchallenged receivables and who sufficiently substantiated the payable receivables and has been allowed by the court commissioner to participate in the proceedings.

The creditor is understood as a person entitled to demand from the debtor satisfying a specific consideration<sup>34</sup>. The act became effective on 1<sup>st</sup> January 2016<sup>35</sup>. In this way it regulated many aspects of the practice of executing restructuring processes in Poland. Its former lack was a factor that hindered the execution of restructuring. In many cases these processes had an improper course due to the lack of unequivocal legal regulations.

<sup>29</sup> Article 19 of the Act of 15 May 2015 – *The Restructuring Law*, Journal of Laws of 2015, item 978.

<sup>30</sup> Journal of Laws of 2014, item 776 and of 2015, item 978.

<sup>31</sup> Articles 23 and 24 of the Act of 15 May 2015 – *The Restructuring Law*, Journal of Laws of 2015, item 978.

<sup>32</sup> Article 40 of the Act of 15 May 2015 – *The Restructuring Law*, Journal of Laws of 2015, item 978.

<sup>33</sup> Article 3 of the Act of 15 June 2007 *on a restructuring advisor's licence*, Journal of Laws of 2014, item 776 and of 2015, item 978.

<sup>34</sup> Article 65 of the Act of 15 May 2015 – *The Restructuring Law*, Journal of Laws of 2015, item 978.

<sup>35</sup> Article 456 of the Act of 15 May 2015 – *The Restructuring Law*, Journal of Laws of 2015, item 978.

In order to avoid bankruptcy, a debtor needs to initiate restructuring and bankruptcy proceedings. Entrepreneurs rarely notice signals of upcoming financial problems in a timely manner. Lack of awareness and real evaluation of the company's situation does not allow for recognising a good time for initiating restructuring proceedings.

As a rule, the first basic element in restructuring proceedings should be proceedings to make an arrangement. It is intended for debtors that are capable to reach agreement with the majority of their creditors without the participation of the court. In this case, the debtor turns to the creditors and makes an arrangement with them on specific terms and conditions. Here, it is possible to pay liabilities in instalments. Upon negotiations with the creditor, it is possible to obtain his consent to reducing the debt. After making an arrangement, the creditor only needs to visit the court in order to confirm the restructuring arrangement with the debtor. The second stage of the restructuring proceedings is the so-called accelerated arrangement procedure. If it is already prepared, the court has to approve and accept this procedure within one week from the moment of submitting the application. Therefore, the entrepreneurs should be aware that before their companies go bankrupt, they should use these two simple modes of restructuring proceedings.

If the sum of disputable liabilities exceeds 15% of the debtor's total liabilities, the debtor enters the following two modes of restructuring proceedings: arrangement and curative proceedings. These are quite complicated proceedings and are intended for companies of a higher financial potential. Their benefit is that the debtor may apply at the court to suspend bailiff enforcement, not losing financial liquidity, and at the same time may attempt to restructure his company. In suspending such proceedings, the court enables the debtor to repay liabilities. At the same time it is possible to direct the company to the path of a normal development through implementing restructuring modifications, selecting new sources of financing the enterprise, acquiring new technologies and co-operators<sup>36</sup>.

Another type is a curative procedure, being one of more complex restructuring proceedings. Usually it may be initiated and conducted with regard to failure of any other restructuring procedure. This deprives the debtor of the possibility to manage the enterprise. Such proceedings also involve appointing an external administrator who takes over the process of managing the company. However, thanks to this, it becomes possible to apply a range of solutions allowing for dismissing employees, withdrawing from unused contracts, selling the ineffective part of the company's assets. The total of these measures is called the restructuring plan. All these measures are approved by one court commissioner and are executed within 12 months.

Unless all the above mentioned proceedings are effective, the ultimate solution for a company is bankruptcy proceedings. In this case, the debtor must apply at the court to initiate bankruptcy proceedings and declare bankruptcy within 30 days from the date of the insolvency date. One of the premises for declaring bankruptcy is a situation where two liabilities remain unpaid for a period longer than 3 months. From that moment the debtor has 30 days to declare bankruptcy so that the members of the management board can avoid individual responsibility for the company's liabilities.

Upon making deliberations on the legal basis of restructuring, it should be stated that the new restructuring law passed by the Polish Parliament at the session of 9 April 2015, stipulates a revolutionary method of approaching enterprises' restructuring proceedings. In its qualitative aspect, it is a completely new act – restructuring law, which specifies, as mentioned earlier, four different paths of making an arrangement by an entrepreneur. In terms of restructuring the enterprise, two modes are simpler and two more complex. The selection of the most suited one is based on the level of restructuring complexity

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<sup>36</sup> It should be noted that the issues raise in this article are extensively presented in: A. Jaki, M. Kowalik (scientific ed.), *Procesy restrukturyzacji wobec współczesnych przemian gospodarczych*, part I, II, III. And in particular in part IV. *Uwarunkowania, przebieg i efekty procesów restrukturyzacji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2016.

and problems existing in the company. In 2016 the number of bankruptcies in Poland grew by over 3%. As a result, their pace was slower than in 2015 (3.9)<sup>37</sup>. One of the causes was amending the bankruptcy law and implementing the restructuring law to the Polish legal system. What can be observed here is a growing popularity of using the restructuring process in the companies' remedial system.

## Conclusion

This paper presents selected viewpoints with regard to the theory and practice of restructuring processes conducted in Poland. These refer to profound modifications in enterprises. The Author presents basic definitions of restructuring and describes the reasons for the necessity to implement restructuring processes. The article presents the basics of statutory restructuring, conducted under the Act of 15 May 2015 – *The Restructuring Law*.

The methodology for conducting the restructuring process and the applied tools are subject to constant modifications. This takes place with continuous progress in the field of management and Information Technology sciences that frequently support management processes in a significant manner. It should be claimed that the function of the restructuring process will have a growing impact on the economy. This is especially noticed in the periods of economic downturn, such as the one taking place in recent years. An important aspect is not only the enterprises' remedy, being the essence of remedial restructuring, but also the application and dissemination of developmental restructuring. It allows for reaching and strengthening the competitive advantage. Quite frequently it also constitutes a powerful safeguard against crisis situations in the economy. Therefore, the function of the state and various institutions that promote entrepreneurship is of considerable significance since they should raise the management's consciousness of the function of strategic planning in the company with regard to reaching long-term financial and other benefits.

In today's reality, with the use of the manager's current knowledge, professional experience and skills, conducting the restructuring process should not be something fearsome or complicated. Yet, it is only possible when all the associated aspects are properly planned. While implementing many verified management methods and experiences in the restructuring process, it can be concluded that every process in the enterprise can be improved. It merely requires adequate approach and the use of suitable tools. However, the manager's appropriate approach and professional experience have a decisive impact on the success of the modification process and properly affect the employees' attitude. Focusing only on these processes (or plans of their execution) and disregarding the human factor rather cannot guarantee success. Only proper preparation for changes, based on well organised training courses of human teams, will allow for balanced and effective execution of the restructuring process – currently conducted in Poland under the Act of 15 May 2015 – *The Restructuring Law*.

## Bibliography

1. Borowiecki R., *Zarządzanie restrukturyzacją procesów gospodarczych. Aspekt teoretyczno-praktyczny*, Difin, Warszawa 2003.
2. Borowiecki R., Siuta-Tokarska B. (eds.), *Restructuring as the Imperative of Developmental Changes in Economy*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.

<sup>37</sup> Cf.: J. Grzywacz, *Struktura kapitału w przedsiębiorstwie w warunkach ekspansji, kryzysu i zjawisk upadłościowych*, Oficyna Wydawnicza SGH, Warszawa 2015, chapter 4, point 4.2.1., *Przedsiębiorstwa, – liczba, aktywność, przeżywalność*, pp. 111-113.

3. Borowiecki R., Rojek T. (scientific ed.), *Kształtowanie relacji partnerskich i form współdziałania współczesnych przedsiębiorstw. Strategie – Procesy – Narzędzia*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.
4. Brzóska J., *Praktyka restrukturyzacji – za i przeciw*, published on: [http://dlafirmy.info.pl/articlesFiles/Praktyka\\_restrukturyzacji\\_-\\_za\\_i\\_przeciw.pdf](http://dlafirmy.info.pl/articlesFiles/Praktyka_restrukturyzacji_-_za_i_przeciw.pdf).
5. Chomątowski S., *Kierunki i metody oceny oraz realizacji restrukturyzacji przedsiębiorstw*, „Przegląd Organizacji” 1994, No 12.
6. Cudowska-Sojko A. (ed.), *Współczesne wyzwania rozwoju gospodarczego. Polityka i kreacja potencjału. Struktura gospodarki – Rynek pracy – Środowisko i jakość życia* part II, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2015.
7. Durlik I., *Restrukturyzacja procesów gospodarczych. Reengineering. Teoria i praktyka*, Placet, Warszawa 1998.
8. Gruszewska E. (ed.), *Współczesne wyzwania rozwoju gospodarczego. Polityka i kreacja potencjału. Kreacja – Innowacyjność – Handel zagraniczny*, part I, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2015.
9. Grzywacz J. (scientific ed.), *Struktura kapitału w przedsiębiorstwie w warunkach ekspansji, kryzysu i zjawisk upadłościowych*, Oficyna Wydawnicza, Szkoła Główna Handlowa w Warszawie, Warszawa 2015.
10. Jaki A., Kowalik M. (scientific ed.), *Procesy restrukturyzacji wobec współczesnych przemian gospodarczych*, part II. *Koncepcje i metody restrukturyzacji procesów gospodarczych*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2016.
11. Jaki A., Kowalik M. (scientific ed.), *Procesy restrukturyzacji wobec współczesnych przemian gospodarczych*, part IV. *Uwarunkowania, przebieg i efekty procesów restrukturyzacji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2016.
12. Jaki A., Kowalik M. (scientific ed.), *Współczesne oblicza i dylematy restrukturyzacji*, part III. *Strategiczne wyzwania i zakresy restrukturyzacji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.
13. Jasiński Z., *Restrukturyzacja systemu zarządzania przedsiębiorstwem*, „Ekonomika i organizacja przedsiębiorstwa”, 1992, No 8.
14. Kaczmarek J., Szymła W. (scientific ed.), *Teoria i praktyka zarządzania w obliczu nowych wyzwań*, part III. *Kształtowanie strategii, przewagi konkurencyjnej i kluczowych kompetencji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.
15. Kaczmarek J., Szymła W. (scientific ed.), *Teoria i praktyka zarządzania w obliczu nowych wyzwań*, part II. *Innowacyjność i jakość wyznacznikami ścieżki rozwoju przedsiębiorstwa* and part III. *Kształtowanie strategii, przewagi konkurencyjnej i kluczowych kompetencji*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.
16. Kaczmarek J., Szymła W. (scientific ed.), *Teoria i praktyka zarządzania w obliczu nowych wyzwań*, part IV. *Zarządzanie finansami, kapitał i funkcje kontrolne przedsiębiorstwie*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.
17. Lachiewicz S., Zakrzewska – Bielawska A. (eds.), *Restrukturyzacja organizacji i zasobów kadrowych przedsiębiorstwa*, Oficyna Ekonomiczna, Kraków 2005.
18. Maksimczuk A., *Sektory problemowe i pomoc selektywna a mechanizm kreacji zasobów gospodarczych w Polsce w pierwszej połowie transformacji*, [in:] Gruszewska E. (ed.), *Współczesne wyzwania rozwoju gospodarczego. Polityka i kreacja potencjału. Kreacja – Innowacyjność – Handel zagraniczny*, part I, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2015.
19. Maksimczuk A., *Granice państwowe, relacje z sąsiedztwem gospodarczym i wschodnie pogranicze Polski w dobie transformacji, integracji i globalizacji* vol. 1. *Transformacja systemowa i kształtowanie się nowej jakości polskich granic państwowych*, chapter 1. *Najważniejsze wyzwania cywilizacyjne*

- podjęte przez Polskę u schyłku XX wieku*, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2013.
20. Maksimczuk A., Prokopiuk A., *Geographical Restructuring of Foreign Trade and Challenges in the Improvement of International Competitiveness of the Polish Economy* [in:] Borowiecki R., Siuta-Tokarska B. (eds.), *Restructuring as the Imperative of Developmental Changes in Economy*, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2015.
  21. Prokopiuk A., Maksimczuk A., *Zmiany struktury gospodarki i zakres realokacji zasobów w Polsce w początkach transformacji – uwagi ogólne*, [in:] Cudowska-Sojko A. (ed.), *Współczesne wyzwania rozwoju gospodarczego. Polityka i kreacja potencjału. Struktura gospodarki – Rynek pracy – Środowisko i jakość życia*, part II, Wydawnictwo Uniwersytetu w Białymstoku, Białystok 2015.
  22. Stabryła A., *Zarządzanie rozwojem firmy*, Księgarnia Akademicka, Kraków 1995.
  23. Suszyński C., *Restrukturyzacja, konsolidacja, globalizacja przedsiębiorstw*, PWE, Warszawa 2003.
  24. Act of 15 May 2015, *The Restructuring Law*, Journal of Laws of 2015 item 978.
  25. Act of 15 June 2007 *on the restructuring advisor's licence*, Journal of Laws of 2014 item 776.
  26. Act of 28 February 2003 – *The Bankruptcy Law*, Journal of Laws of 2015, item 233.
  27. Act of 23 April 1964 – *The Civil Code*, Journal of Laws of 2014, item 121, as amended.
  28. Wanielista K., Miłkowska I., *Słownik menedżera*, Fraktal, Wrocław 1998.





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# DE-STRUCTURING THE ORGANIZATION PROCESSES AND STRUCTURES IN THE FACE OF CHANGES

## *Summary*

*Organizations today are fighting to survive the massive changes in the business environment. Organizations have to respond to this change or perish. Traditional structures can no longer be adapted to newer challenges. Organizations have to go through the complete process of re-inventing themselves. This paper traces the history of structures and critically examines their role in present business scenario. The traditional organizational structures built around function or product is constrained by hierarchical pressures. Firms cannot maximize their productivity in such circumstances. It further proposes a model which will sustain in the future and contribute to the development of the organization.*

\* \* \*

## **Introduction**

History of Organization Structure(s) is in fact history of organized work. Since pre-historic times, human beings organized themselves into groups to fend for themselves. These groups had their own rules which all members followed and those who did not, invited severe punishments. The Pre-industrial times, saw work organization take the shape of the Guild, which had its own structure of Masters, Journeymen and Apprentices. The Industrial revolution saw the introduction of machines and the Factory System. For the first time large pool of workers were together under one roof using mechanized devices, producing not an entire product by themselves but working on one process that would ultimately make the product in co-ordination with others. This required setting up a formal system called 'organization'. An organization is a group of people working together to produce value (McChrystal, Collins, Silverman, & Fussel, 2015). The set of rules that governed each individual within the organization is called 'Organization Structure'. The traditional organization structure was established in early 20<sup>th</sup> century and it became popular among business practitioners. (Lim, Griffiths, & Sambrooks, 2010).

The industrial age required mass production and economies of scale. Large scale machines were deployed to achieve this end. This required people with different skill sets, one performing specialized

tasks and the other ensuring that the tasks get completed. It was the beginning of the hierarchical organization structure. Rules became more complex and organizations became more structured. In time every organization adapted to the external and internal realities of business and formed a structure that suited their needs.

An organization Structure is thus the method by which tasks are divided and synchronized to achieve organizational goals. According to investopedia, “Organizational structure is a system that consists of explicit and implicit institutional rules and policies designed to outline how various work roles and responsibilities are delegated, controlled and coordinated. Organizational structure also determines how information flows from level to level within the company.” (Investopedia, n.d.).

Various studies have been done on Organization and its form. Blackburn, (Blackburn, 1982) and Fredrickson (Fredrickson, 1986) studied the organization from a structural point of view. Child (Child, 1974) and Dalton et.al (Dalton, Todor, Spendolini, Fielding, & Porter, 1980) identified the characteristics of an organization structure and its relation to organization performance.

The traditional organization structure was hierarchical in nature. Every entity under this structure is a subordinate to the other entity. This structure usually comprises of single group of power at the top of the organization and subsequent levels of less powers beneath them (Butler Jr, 1986). The structure of the organization is typically grouped either function wise (Functional Structure) or division wise (Division Structure or Product Structure).

In Functional Structure, the organization is divided as per the specialized functions that need to be performed like operations, marketing, finance etc. This division makes the personnel gain expertise in their domains and contributes to overall efficiency. A centralized authority controls the production making it easier to mass produce limited variety of standardized products. In the Division or Product Structure, the organization is divided on the basis of Product group that it produces. Thus each Product line becomes a group and each such product line has its own functions of operations, marketing, finance etc. In this structure, the performance of a product can be easily measured as there is complete accountability for that particular group. Decision making is faster in Product Structure and coordination between functions is easier.

Figure 1. Functional Structure

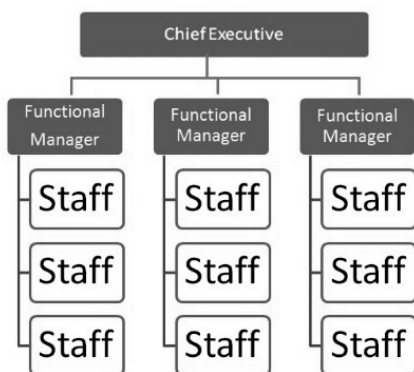
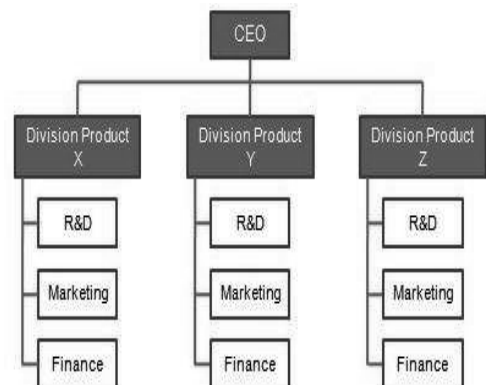


Figure 2. Product Structure

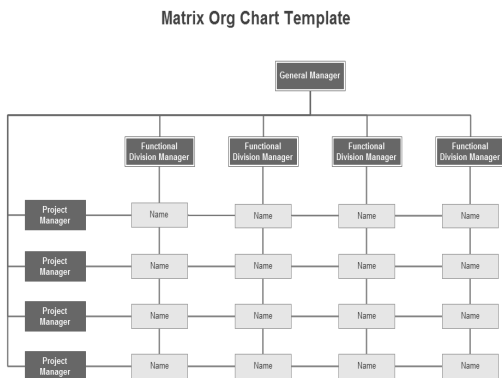


In addition to the above traditional structures, many organizations introduced the Matrix Structure and Flat Structure to get more efficiencies from the system. Matrix structure uses a mix of functional and product structure where employees work as teams for a given task. Matrix structure, involves “dual-authority relations” (Jennergren, 1981), one to the functional head and another to the administrative head. Flat structure is employed by small companies where there is none or a thin line of middle managers and

lower level employees are empowered to make decisions directly in conjunction with the top management. Flat organization is a later day innovation that has tried to address the information gap within a hierarchical structure. Here, there is no or negligible concept of middle management. There are very few layers of authority and the top management is directly in touch with the day to day operations. Information flow is fast and the system is ready to respond quickly to external changes or market demand.

Figure 3 Matrix Structure

Figure 4 Flat Structure

**Flat Organization Structure**

### **Limitations of the traditional structures**

The traditional organization structures were meant for an economy where information was power and achieving targets at any cost was the norm. In functional organizations, communication is slow and controlled. Lateral communication within divisions is not very smooth. This leads to inter-departmental conflicts and waste of time and efforts of the top management. In Division Structure, there is an additional cost of functional resources due to overlap in each division. Moreover, it increases rivalries amongst the divisions. Centralization of decisions, in traditional structures leads to obstructions in transfer of information. (Milton & Artur, 2002). Matrix organization creates its own confusion and conflict due to dual reporting. Big amount of effort is required to create, manage and disband the teams. “A matrix organization does not fit a globalization strategy based on the two principal drivers of globalization, economies of scale and scope” (Barson & Besanko, 1996). This structure, though works efficiently, is largely confined to small. As the organization grows, the management is too stretched to concentrate on micro operations. Flat structure limits the scale of operations. Once the number of employees increases, it becomes very difficult to manage them directly beyond a point.

The hierarchy in both the traditional systems ensures that:

- Information is used as a weapon against those in the lower ranks.
- Cooperation is replaced with conflict with respect to other departments or divisions.
- Individual contributions are ignored in favor of the bigger mass.
- Individual contributions are ignored or not given due credit.
- Individual frustration with corporate structure and its decision making.
- Exceptional contributions do not get their due.
- Innovation is stifled or discouraged.
- Organization cannot optimize the combined strengths of all its employees.

In strict hierarchical structures there is redundancy and inefficiency of resource utilization. For instance, if arranged by business function, you must duplicate support functions, such as HR or IT

within each business unit. Also, workers functioning in different roles or collaborating across the organization break the strict hierarchical structure. Cross-functional communication and collaboration are not encouraged in hierarchies, because the workers are not accountable to anyone except their direct supervisor. Hierarchies, therefore, tend to become bureaucratic and siloed. (Altman & Roy, 2016)

## **Changing Business Environment**

### ***Globalization***

Globalization has led to improved communication and transportation services across the world (Jacobides M. G., 2007). Globalization has revolutionized the way business is conducted in the new millennium. Today, the competition is not the immediate rival with near about market share but a one person company sitting in a remote village in an under-developed country.

Manufacturing today happens based on which supplier can supply a component of best quality at lowest price from anywhere in the world. Globalization has brought in free movement of goods and services across borders. The obvious impact has been movement of people from one geography to another (though not as free!). The demand for specific skill sets has made organizations compete to acquire talent at a premium. It is the skills that are being sought after rather than persons with degrees to fill up the vacant positions in the hierarchy. In such circumstances, the existing organization structures just cannot survive.

### ***Information Age***

In the traditional organization structures, information was the king. Those who had it could exert their power over those who did not. Today, information is freely available to everyone. No longer can those who are higher up in the hierarchy can dictate terms to those below just because they are better informed. Today, information is available at the click of a button and they can be questioned based on the information available to those in the lower ranks. In other words, hierarchal ranks do not matter as the person at a lower rank may possess more 'knowledge' and 'skills' than the one above him/her. Easy access to any kind of information from any corner of the globe has created a "Flat" world. (Friedman, 2005)

Moreover, the flow of information within the organization in traditional structures is slow and biased. It takes an organization a great amount of time to respond to external changes. Information is usually unidirectional, from top to bottom with little respect for the reverse flow of information.

### ***Competitiveness***

Organizations have to be fast and furious to stay ahead of the competition. A rigid structure does not allow it the flexibility to respond to competition. Nokia is a prime example of how a world number one company in its category could fall apart due to radical moves by its competitors. Organizations have to change their structural inflexibility to face the competition today.

### ***Outsourcing***

The manufacturing industry had implemented the 'make or buy' strategy for years together until the service industry caught up in the late nineties when business process outsourcing became the norm. It caught particular attention due to IT-enabled outsourcing at a global level. So, what does outsourcing really achieve? It actually brings the best of global talent to work for the organization. This leaves serious questions on the organization structure of the outsourcer company.

### ***Societal Changes***

Changes in the external world are reflected in the changes that govern social mores. The individual today is much more integrated to the happenings in the world at large. The individual aspires to achieve

the best in the world through the talents that s/he possesses. The individual is ready to scout for the best buyer for his/her talent rather than get stuck in the maze of corporate rules and regulations.

### ***Technology***

Information and Communication Technologies have changed the world forever and are doing so at a very rapid pace. Technology, today, is not the fiefdom of a few but available to all and sundry. This has given every individual on the planet an opportunity to work towards achieving his/her true potential. Technological changes have brought down mega corporations and brought up hitherto unknown enterprises to the forefront of business world. The individual is now able to sell his/her talent to the highest bidder or even work on multiple projects without the shackles of an organization tying the individual down.

## **Organizational Responses to Changing Business Environment**

The modern organizations take in resources from their environment and transform them into outputs to be distributed back into the environment. The processes and structure in traditional organizations were stable for longer periods. The situation has changed under modern organizations where structures undergo continuous changes. Organizations continuously improve on their competitive advantage which puts them in a state of permanent flux. (Dozier, 2012). Modern organizations undergo a lot of changes which includes reorganization of divisions, reengineering of business processes, replacement of permanent employees with part-timers or freelancers and outsourcing of non-critical activities. (Jacobides & Winter, 2007). The traditional structure of the organization is described in detail in an organization chart with clear demarcation of lines of communication and reporting hierarchy. This makes it very stable but closed to external environment. On the other hand, the modern organization structure is an open system which dynamically interacts with the external environment (Jacobides & Winter, 2007). When the decisions in the organization are taken by experts and specialists close to the grassroots. (Hart & Moore, 2005). "Contemporary organizations must be efficient, effective, flexible, agile, innovative, fast-cycled, responsive, and aligned" (Tomislav, Ana, & Maja, 2013).

Barring a few examples, organizations have desperately tried to cling to traditional structures. This has given rise to demoralized employees and organizations getting less than optimum productivity from their operations. In the long run, organizations lose their competitive advantage in the market. As technology permeates every sphere of work and life, organizations have to rethink the very fundamental on which their structures stand.

### **Proposed Model**

#### ***Modern Organization Structure***

In the 21st century, organizational theorists such as Lim, Griffiths, and Sambrook (Lim, Griffith, & Sambrook, 2010) are once again proposing that organizational structure development is very much dependent on the expression of the strategies and behavior of the management and the workers as constrained by the power distribution between them, and influenced by their environment and the outcome. The goals have become more diversified and they are influenced by many factors including, strategic planning, creativity, individual responsibility and teamwork (Lim, Griffith, & Sambrook, 2010). In the 21st century, even though most, if not all, organizations are not of a pure hierarchical structure, many managers are still blind to the existence of the flat community structure within their organizations (Butler Jr, 1986)

The context of the modern organization is very different from traditional organizations. Information is available from multiple sources from within and outside the organization and communication has become

much faster with electronic devices. Specialization in a particular domain results in employees at junior level having more knowledge than their seniors. Leading industry researcher Josh Bersin recently wrote: “What our research discovered, after talking with dozens of companies around the world, is that the high-performing companies of today are not functional hierarchies, they are “networks of teams,” and the “network of teams” requires a whole new way of thinking about jobs, roles, leadership, talent mobility, goals, and the tools we use to share information, provide feedback, and measure our success.” (Bersin, n.d.). The business is no longer just a place where people come to work. For most of the employees, the firm confers on them that sense of belonging and identity — the firm has become their “village”, their community (Stacey, 1974). The firm of the 21st century is not just a hierarchy which ensures maximum efficiency and profit; it is also the community where people belong to and grow together, where their affective and innovative needs are met (Lim, Griffith, & Sambrook, 2010)

## **De-structuring and not Re-structuring**

To achieve the optimal out of the organization of the future, one needs to bring in radical changes. These cannot be achieved with routine process changes in the traditional structures. Organizations have to demolish their entire structures and re-construct new models. Existing hierarchies, job titles, bureaucracies have to be demolished and the system has to be made dynamic and flexible. Every activity has to be focused towards the customer. The customer in fact becomes the center of the organization. In the new organization structure every employee is involved in decision making process as opposed to the traditional system where managers told the workers what was supposed to be done and how. The focus of the de-constructed organizations is the customer. Specialist teams come together to finish a project to the highest satisfaction of the customer. Traditional hierarchal structure is not best suited to adapt to changing customer requirements while the newer organization structures are capable of changing themselves as and when required.

## **How to De-Structure**

**Replacing Employees with Freelance Professionals** – An organization needs talent to run its business and not physical employees under its payroll clocking 42 hours a week. There is no compulsion that such a talent has to be employed as full time employees with the organization. This talent can be bought for a specific purpose and disbanded when the objective is met. The modern organization has introduced the concept of temporary jobs as opposed to permanent jobs in the traditional system (Lim, Griffith, & Sambrook, Organizational Structure for the twenty-first century, 2010). Organizations can re-structure every activity into a project. Since each project will need experts to deliver the end result, such expertise can be obtained on a contractual basis for the time that the project is underway. Once the project is completed, contract is over, team members are relieved and are free to take up other projects.

Talent available on contract is much more motivated to complete the project to the best of their ability as they have a reputation to make and protect. Their next contract will depend on the performance of this project. The Organization can thus get the best of talent available in the market based on the client’s requirements.

**Outsourcing support functions** – Organizations need employees to perform routine functions to support its Primary activities. In the De-structured model, majority of the routine functions will be outsourced to specialized agencies. Outsourcing of housekeeping, security, payroll, recruitment and other such functions are already a norm. Human Resources, Procurement & Logistics, Accounts. In this way, the organization does not have the liability of employees on its payroll. The Outsourced Company is monitored strictly on the basis of the contractual terms resulting in tremendous amounts of efficiency.

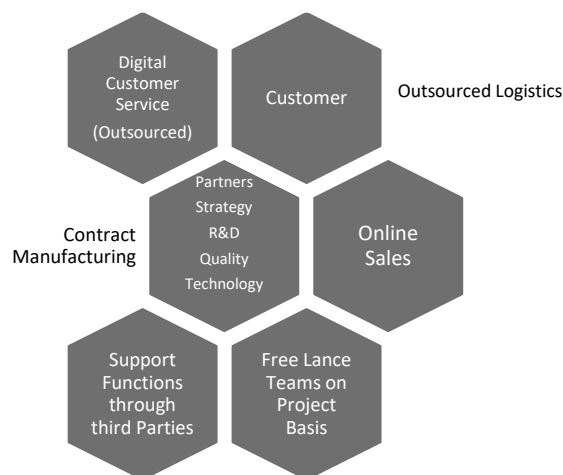
**Business Process Re-engineering (BPR)** – BPR helps organizations to fundamentally rethink how they do their work in order to dramatically improve customer service, cut operational costs, and become world-class competitors (Accounting and Information Management Division, 1997). BPR has a vital role to play in changing over from traditional to futuristic organizations. Every activity of the organization, every job role and every function has to be critically reviewed and its value to the organization assessed. Optimization of processes should be achieved by cutting down wasteful activities. Any activity that can be done better by external agencies should be outsourced.

**Technology** – A successful transition away from traditional organization will involve massive use of Information and Communications Technology. A small management team has to depend on multiple outsiders to achieve the desired organizational goals. This cannot be achieved without a sturdy IT and Communications network. Different entities of the Organization network have to be integrated so that the process of delivering value to the customer is not hampered. A sturdy network will ensure seamless integration wherein every entity will be able to access required information and report progress of its activity. It is recommended that this function be retained within the organization's core team.

**Research & Development (R&D)** – This is one area where the organization conceives products and services for the customer. It is the first step where the organization innovates and offers new or improved products so as to stay ahead of the competition. Every other function in the organization is dependent on R&D to offer solutions to customers. New products are absolutely vital for the survival of the organization in these times of cut-throat competition. Even if an organization were to imitate the innovations of others, it will have to rely on its own R&D to customize it to their needs. The R&D team has to form the Core team of the organization. The personnel here can be hired for fixed term contracts with freelance professionals.

**Quality Control** – A frugal organization dependent on external entities for logistics, operations, delivery and customer service has to set extremely strict standards to procure the products and services that it has out sourced. It has to start by considering every supplier as an equal stakeholder in the business process. Once such standards are set, they have to be monitored extensively. This job again has to be done by core in-house team which can be relied upon to work for the achievement of organization goals.

Figure 5: Proposed Model



The above discussion brings us to the following model of the organization structure that they will adopt to face environmental challenges.

The model describes the relationship that every system in the organization shares with others. Despite the fact that there is no linear connection, the organization structure consists of networks of entities which come together to enable optimum results. Each of these entities (example; customer service) will have its own such sub-system where it will rely on its own network of professionals, freelancers and fixed-contract employees. The same relationship is extended to subcontracted parties whether for contract manufacturing or outsourcing third party support functions. This model will slowly but surely take over the organization structure of all small and big companies in the time to come.

## Conclusion

Organizations have to respond to these challenges by making suitable changes in their organization structure. Organizations have to get ready for a future that is going to hit them much sooner than expected. Free flow of information, technology disruptions and globalization have posed serious challenges to the continuation of traditional organization structures. These structures cause information blocks and conflicts in the organization which compromises the goals of the organization. In highly competitive environment, no organization can afford to do this. Such structures have to be demolished and newer dynamic organizations have to be developed which are responsive to the customer needs and optimizes the resources. Such structures can be formed by retaining very core functions and using networks to fulfill others.

## Bibliography

1. Accounting and Information Management Division. (1997). *Business Process Re-engineering Guide*. United States General Accounting Office.
2. Altman, & Roy. (2016). *Workforce Solutions Review*, 13-15.
3. Barson, D. P., & Besanko, D. (1996). Global Strategy and Organization. *Working Paper*, 1-1.
4. Bersin, J. (n.d.). ,” [https:// www.linkedin.com/pulse/ time-do-away-organizationchart-josh-bersin?trk=profpost](https://www.linkedin.com/pulse/time-do-away-organizationchart-josh-bersin?trk=profpost). Retrieved from [www.linkedin.com](http://www.linkedin.com): ,” [https:// www.linkedin.com/pulse/ time-do-away-organizationchart-josh-bersin?trk=profpost](https://www.linkedin.com/pulse/time-do-away-organizationchart-josh-bersin?trk=profpost).
5. Blackburn, R. S. (1982). Dimensions of Structure : A Review and Reappraisal. *Academy of Management Review*, 7(1), 59-66.
6. Butler Jr, J. (1986). A Global View of Informal Organization. *Academy of Management Journal*, 39-43.
7. Child, J. (1974). Managerial and Organizational Factors Associated with Company Performance. *Journal of Management Studies*, 11(3), 175-189.
8. Dalton, D. R., Todor, W. D., Spendolini, M. J., Fielding, G. J., & Porter, L. W. (1980). Organization Structure and Performance : A critical review. *Academy of Management Review*, 5(1), 49-64.
9. Dozier, B. (2012, December 19). Retrieved from Barbara Dozier’s Blog: <https://barbradozier.wordpress.com/2012/12/19/traditional-organization-and-organizational-structure-in-modern-business-economy/>
10. Fredrickson, J. W. (1986). The Strategic Decision Process and the Organizational Structure. *Academy of Management Review*, 11(2), 280-297.
11. Friedman, T. L. (2005). *The World is Flat*. New York: Farrar, Straus and Giroux.
12. Hart, o., & Moore, J. (2005, Aug). On the Design of Hierarchies: Coordination versus Specialization. *Journal of Political Economy*, 113(4), 675-702.
13. *Investopedia*. (n.d.). Retrieved from [Investopedia.com](http://www.investopedia.com/terms/o/organizational-structure.asp): <http://www.investopedia.com/terms/o/organizational-structure.asp>



14. Jacobides, G. M., & Winter, S. G. (2007). Entrepreneurship and Firm Boundaries: The Theory of A Firm. *Journal of Management Studies*( 44), 1213–1241. doi:doi:10.1111/j.1467-6486.2007.00726.x
15. Jacobides, M. G. (2007). The inherent limits of organizational structure and the unfulfilled role of hierarchy: Lessons from a near war. *Organization Science*, 455-477.
16. Jennergren, L. P. (1981). *Decentralization in Organizations*. New York: Oxford University Press.
17. Lim, M., Griffith, G., & Sambrook, S. (2010). *Organizational Structure for the twenty-first century*. Austin: The Institute for Operations Research and The Management Sciences.
18. Lim, M., Griffiths, G., & Sambrooks, S. (2010). *Organization Structure for the twenty-first century*. Austin: The Institute of Operations Research.
19. McChrystal, G. S., Collins, T., Silverman, D., & Fussel , C. (2015). *Team of Teams: New Rules of Engagement for a Complex World*. New York: Penguin Publishing Group.
20. Milton, H., & Artur, R. (2002, July). Organization Design. *Management Science*, 48(No. 7), 852-865.
21. Stacey, M. (1974). The Myth of Community Studies. In C.Bell, *The Sociology of Community: A Selection of Readings* (pp. 13-26). London: Frank Crass.
22. Tomislav, H., Ana, A., & Maja, K. (2013). Organizing for Competitiveness – Structural and Process Characteristics of Organizational Design. *Contemporary Economics*, 25-40.



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# MANUFACTURING STRUCTURE FORMATION IN NETWORK MANUFACTURING SYSTEM UNDER CONDITION OF RESOURCES DISTRIBUTION

## *Summary*

*Issues related to formation the structure of network manufacturing system under condition of resources distribution is considered both static and dynamic approach. Static structure of manufacturing system can be seen as a effect of the network of distributed resources interactions coordination which requires proper configuration for integrated manufacturing process execution. The paper presents the problem of forming the manufacturing structure, which is perceived as a problem of industrial network configuration.*

\* \* \*

## **Introduction**

Manufacturing processes are increasingly being performed using resources occurred in different manufacturing systems. In the case, where fulfillment of a production order requires the involvement of resources existing in different systems, we deal with the distribution of manufacturing resources<sup>1</sup>. A particular area of the occurrence of distributed resources are relationship or interactions network<sup>2</sup>, that finds the required resources and determines and enables their use<sup>3</sup>. The interactions network, in a general case, is referred to in the relevant literature as the interorganizational network understood as a relatively

<sup>1</sup> M. Dudek, *Organizacja rozproszonych zasobów produkcyjnych w sieci*, /in:/ *Dylematy współczesnych przedsiębiorstw w procesie restrukturyzacji. Dywersyfikacja – integracja – rozwój*, R. Borowiecki, A. Jaki (eds.), Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2011, pp. 391-403

<sup>2</sup> networks based on short-term relations between cooperating companies are called interactions network and networks based on long-term relations between cooperating companies are called relationship network, as: A. Kozina (eds.), *Wybrane problemy zarządzania relacjami w przedsiębiorstwie*, Wydawnictwo Mfiles.pl, Kraków 2015, pp. 70

<sup>3</sup> W. Czakon, *Sieci w zarządzaniu strategicznym*, Oficyna Wolters Kluwer Business, Warszawa 2012, pp. 28.

durable grouping of autonomous, specialized companies that participate in a system of cooperation based on market principles, while this being a system of at least three organizations oriented to achieving coincident goals.<sup>4</sup> The notion of interorganizational network refers to the general conceptualization of the cooperation of production enterprises, in a broad sense, i.e. both collaboration networks, as well as industrial networks, or systems of cooperation between enterprises.<sup>5</sup> Production enterprises that make resources available to the environment, with an integral part of those resources being manufacturing systems, may be perceived as actors who have competences necessary for producing an added value, and who are interconnected with time-variable interorganizational collaboration and are embedded in a network of interactions with identifiable partners.<sup>6</sup> Producing a value in an interaction network requires the appropriate integration of distributed resources, whereby achieving the most desirable course of processes will be possible under given network configuration conditions.<sup>7</sup> The product offered as a result of this integration is the resultant of different types of links and relationships defined by the network coordination. Network coordination involves the network assuming a specific form of ordering, which should be regarded as a form of network organization.<sup>8</sup>

The literature on the subject of interaction network organization focuses on the problem of network organization in the context of enterprises' cooperation on a strategic level. On an operating level, on the other hand, the issues of the organization and management of industrial networks require expansion that goes beyond the currently prevailing views and concepts.<sup>9</sup> The objective of this study is to attempt to solve the problem of the configuration of the industrial network, being an element of the coordination of the network of distributed resources interactions, which enables the integration of distributed manufacturing resources with the aim of creating the expected value.

### **Network Manufacturing System as a form of industrial network organization**

In the context of the industrial network, one can analyze production enterprises' collaboration within an economic network, which manifests itself in mutual sharing and using resources possessed by respective enterprises.<sup>10</sup> An industrial network may refer to collaboration within industrial cooperation based on horizontal relationship or within sector competition. The network can be seen as an intermediate form of coordination of distributed resources between the market and the enterprise.<sup>11</sup> Network organization comprising the network arrangement design, the selection of partners, negotiation and

<sup>4</sup> A. Zakrzewska – Bielawska, *Strategie przedsiębiorstw w sieci. Wyniki badań firm high-tech. /in:/ Zarządzanie strategiczne. Strategie sieci i przedsiębiorstw w sieci*, R. Krupski (eds.), Prace Naukowe Wałbrzyskiej Wyższej Szkoły Zarządzania i Przedsiębiorczości, t. 32, Wałbrzych 2015, pp. 440

<sup>5</sup> H. O'Neill, P. Sackett, *The Extended Manufacturing Enterprise Paradigm*, Management Decision, Vol. 32, No. 8, 1994 pp. 42-49

<sup>6</sup> W. Czakon, *op. cit.*, pp. 25

<sup>7</sup> M. Dudek, *Szczupłe systemy wytwarzania*, Difin, Warszawa 2016, pp. 9

<sup>8</sup> A. Grandori, G. Soda, *Inter-Firm Networks: Antecedents, Mechanisms and Forums*, Organization Studies, Vol. 16, No. 2, 1995, pp. 183-214

<sup>9</sup> R. Dekkers, C.A.V. Luttervelt, *Industrial networks: Capturing changeability?* International Journal of Networking and Virtual Organizations, No. 3, 2006, pp. 1-24

<sup>10</sup> on the other hand, interorganizational network provides the widest perspective of analyzing the cooperation of enterprises, including competitors, entities creating the value chain and other organizations in the environment, as: A. Zakrzewska – Bielawska, *op. cit.*, pp.440

<sup>11</sup> W.W. Powell, *Neither market nor hierarchy: Network forms of organization.*, Research in Organizational Behavior, Vol. 12, 1990, pp. 300

the construction of the network<sup>12 13</sup>, leads to the formation of a disordered base of resources.<sup>14</sup> This base represents a subjective system of the executors of activities in the production of values, who have selected competences and production means available. Establishing network coordination involves the creation of relations in the base of unordered resources, which will enable them to be used in carrying out integrated manufacturing processes. The method of coordination describes the role of resource allocation mechanisms, activity coordination and management mechanisms.<sup>15</sup> The coordination of the network involves, therefore, bringing a specific degree of ordering into the distributed resource base by imparting a defined form of ordering to this network. The form of ordering of the resource interaction network is expressed by the system's structure, because the system is a set of elements of a specific structure. A manufacturing system structure appropriate to the problem of distributed resources interaction network coordination is the structure of a network manufacturing system.<sup>16</sup>

Network Manufacturing System is a collection of independent units (systems elements) separated from within existing or newly designed systems. These units are connected through co-operational network, that is treated as binder of particular elements of the system framework, that perform subsequent stages of integrated manufacturing process.<sup>17</sup> Network manufacturing system belongs to a class of distributed manufacturing systems which consist of autonomous and cooperating units and assume the organization of the system as a co-operational network of these units<sup>18</sup>, consistent with the paradigm of agile manufacturing. Network Manufacturing System under condition of resources distribution is an ordered set of manufacturing modules connected through co-operational network based on external connections. Manufacturing module represented distributed resource as an execution element of manufacturing system, which is responsible for execution process technological operations or transport operations between units in integrated manufacturing process. Manufacturing module can be a single workstation, a group of workstations or the entire system with specified form of structure. Manufacturing module can be seen as modular manufacturing unit which consists of a required hardware (machine, tools, equipment), software (elements for control material flow, processing information, decision making) and people. These elements are integrated into one unit to coordinate the transformation processes, workflow and maintaining the functions of this unit.<sup>19</sup> The network manufacturing system under condition of resources distribution should be regarded as a virtual and dynamic unit that is represented by the logical and temporary structure.

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<sup>12</sup> T. Jarvensivu, K. Moller, *Metatheory of Network Management: A Contingency Perspective.*, Industrial Marketing Management, Vol. 38, 2009, pp. 654-661

<sup>13</sup> P. Dembinski, *Very Large Enterprises, Focal Firms and Global Value Chains*, Revista de Economia Mundial, Vol. 23, 2009, pp. 107-130

<sup>14</sup> K. Czajka, M. Dudek, *Organization of the network manufacturing system under condition of distributed resources*, /in:/ *Contemporary issues and challenges of the organization management process: models – implementation – interrelation*, A. Jaki, T. Rojek, (eds.), Foundation of the Cracow University of Economics, Cracow, 2017, pp. 99-109

<sup>15</sup> W. Czakon, *op. cit.*, pp. 16

<sup>16</sup> K. Czajka, *Essentials of organizing network manufacturing system in the environment of distributed resources*, /in:/ *Managing organizations in changing environment: models – concepts – mechanisms*, A. Jaki, T. Rojek, (eds.), Foundation of the Cracow University of Economics, Cracow, 2014, pp. 181-190

<sup>17</sup> Z. Mazur, *Zarządzanie procesami w systemach wytwarzania*. Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, Kraków 2007

<sup>18</sup> P. Sousa, N. Silva, T. Heikkilä, M. Kollingbaum, P. Valckenaers, *Aspects of co-operation in distributed manufacturing systems*, Proceedings of the 2<sup>nd</sup> International Workshop on Intelligent Manufacturing Systems, Leuven, Belgium, September 1999, pp. 695-717

<sup>19</sup> D. C. McFarlane, *Modular Distributed Manufacturing Systems and the implications for integrated control*, Proceedings of IEE Colloquium on Choosing the Right Control Structure, London, UK, 1998

The network manufacturing system organization process<sup>20</sup> corresponds to the process of coordination of the network of interactions between distributed resources. The result of this process is the ordering of resources within the system structure. It comprises the following stages:

- resource selection with the aim of extracting a subset of resources from the distributed resources base, which will take part in the process of resource allocation negotiation, i.e. assigning the capability for those resources to be used in carrying out the integrated manufacturing process and defining the manufacturing holons on this basis;
- negotiations and allocation of the resources to distinguish elements forming the system and to create on this basis a static structure of the system, which will have the form of a holarchy and will constitute the operational closure of the holons;
- ordering of the resources to create a dynamic system structure, i.e. a manufacturing structure formed as a result of establishing the structural interactions resulting from the integrated manufacturing processes necessary to be carried out in the system; and
- coordination of cooperation to determine the conditions of the collaboration of distributed resources involved in carrying out the integrated manufacturing process, so as to enable production flow control in the organized system.

### **The structure of Network Manufacturing System**

The system structure expresses the mode of ordering of set elements, resulting from the relationships between these elements and the properties of these relationships.<sup>21</sup> In a network approach, the structure is a static expression of network order shown at a given point of time, which makes it possible to determine the position of a given system element in the whole.<sup>22</sup> The structure of a manufacturing system is made up of a set of relationships between its elements, inputs and outputs<sup>23</sup>, which should be considered as a combination of a static structure and a dynamic structure. This structure is therefore defined by relationships between static elements (responsible for system control), operation elements (responsible for carrying out processes) and flow elements that are processed in the system.<sup>24</sup> The static system structure describes the arrangement of the means of production, their division, competences and responsibility, and the information and decision-making structure.<sup>25</sup> The dynamic structure, referred to as the manufacturing structure, reflects the co-operational network (of activity, supply and information types) existing at a given time between the operation elements of the system.

The static structure of the network manufacturing system under condition of resource distribution conditions is a dispersed structure, i.e. the one based on so-called loose structural connections that enable the creation of temporary relationships between hierarchic elements. It has the nature of a logic structure that is made up of a structural system reflecting the relationships between products, orders and resources. This structure is created by negotiation processes between entities that control individual elements. This temporary structure is flexible and loose, often lost or virtual, and it may not restrict the

<sup>20</sup> this process was presented in: K. Czajka, M. Dudek, *Organization of the network manufacturing system under condition of distributed resources*, /in:/ *Contemporary issues and challenges of the organization management process: models – implementation – interrelation*, A. Jaki, T. Rojek, (eds.), Foundation of the Cracow University of Economics, Cracow, 2017, pp. 99-109

<sup>21</sup> M. Dudek, *Projektowanie szczupłych systemów wytwarzania*, Difin, Warszawa 2016, pp. 154

<sup>22</sup> A. Piekarczyk A., K. Zimmewicz, *Myślenie sieciowe w teorii i praktyce*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2010, pp. 46-47

<sup>23</sup> J. Mazurczak, *Projektowanie struktur systemów produkcyjnych*, Wydawnictwo Politechniki Poznańskiej, Poznań 2005, pp. 16

<sup>24</sup> B.S. Blanchard B.S., W.J. Fabrycky, *Systems Engineering and Analysis*, Prentice Hall, New Jersey, 1990

<sup>25</sup> M. Dudek, *op.cit.*, pp. 154

individual autonomy of elements; at the same time, it is indispensable for providing the capability to control the system as an organized whole.<sup>26</sup> The distributed structure provides stability and simultaneous dynamic flexibility to the hierarchy by combining the ability to foresee the system's productivity with the capability to quickly adjust it to changes and disturbances.<sup>27</sup>

The manufacturing structure of the network manufacturing system, under condition of resources distribution, is a structure that is made up by the co-operational network of interactions between the system's operation elements existing at a given time. The integrated interaction network results from cooperation interactions that are possible to occur in the carrying out of manufacturing processes. Cooperation interactions determine in which location of the network a given fragment of the manufacturing processes needs to be carried out, and for what time and in what amount.<sup>28</sup> A reflection of the manufacturing structure in the network manufacturing system under condition of resources distribution is the arrangement of cooperative interactions between manufacturing modules being connected in a given production situation through co-operational interactions resulting from the integrated manufacturing process being conducted at a given point of time.<sup>29</sup> The arrangement of cooperative interactions does not have a fixed nature and results from the best production flow parameters possible to be obtained at a given time.

In accordance with the adopted holonic approach to the network manufacturing system organization<sup>30</sup>, under condition of resource distribution, this structure has the form of a holarchy. The holarchy is represented by the dynamic temporary structural system which is referred to as the cooperation domain.<sup>31</sup> Its elements are dynamic mediators, information exchange between manufacturing holons that represents products, orders and resources in the system and dynamic virtual clusters.<sup>32</sup> The cooperation domain is regarded as a logic space, in which holons collaborate and communicate with each other. It provides the context that defines in which location of the system's structure holons may be situated and how they should create interactions to achieve the cooperation goals.<sup>33</sup> The cooperation domain constitutes a static structure of the system, while the manufacturing structure is made up by a set of dynamic virtual clusters appointed to carry out specific production tasks. The clusters represent interactions necessary for carrying out specific tasks among resources involved in their execution. The clusters are dynamic, because they are created for carrying out a specific task, after which they are dissolved. The clusters are virtual, because they represent the logical or functional decomposition of interactions in the system, rather than the static structural grouping of system elements.<sup>34</sup>

<sup>26</sup> H. Nylund, K. Salminen, P.H. Anderson, *Framework for Distributed Manufacturing Systems*, /in:/ *Enabling Manufacturing Competitiveness and Economic Sustainability*, H.A., ElMarghy (eds.), Springer, Montreal 2011, pp. 172-177

<sup>27</sup> H. Van Brussel H., L. Bongaerts, J. Wyns, P. Valckenaers, T. Van Ginderachter, *A conceptual framework for Holonic manufacturing: identification of manufacturing holons*, Journal of Manufacturing Systems, Vol. 18, No. 1, 1999, s. 35-52

<sup>28</sup> Z. Mazur, *op. cit.*, pp. 15

<sup>29</sup> Z. Mazur, *op. cit.*, pp. 9

<sup>30</sup> K. Czajka, Essentials of organizing network manufacturing system in the environment of distributed resources, /in:/ *Managing organizations in changing environment: models – concepts – mechanisms*, A. Jaki, T. Rojek (eds.), Foundation of the Cracow University of Economics, Cracow, 2014, s. 181-190.

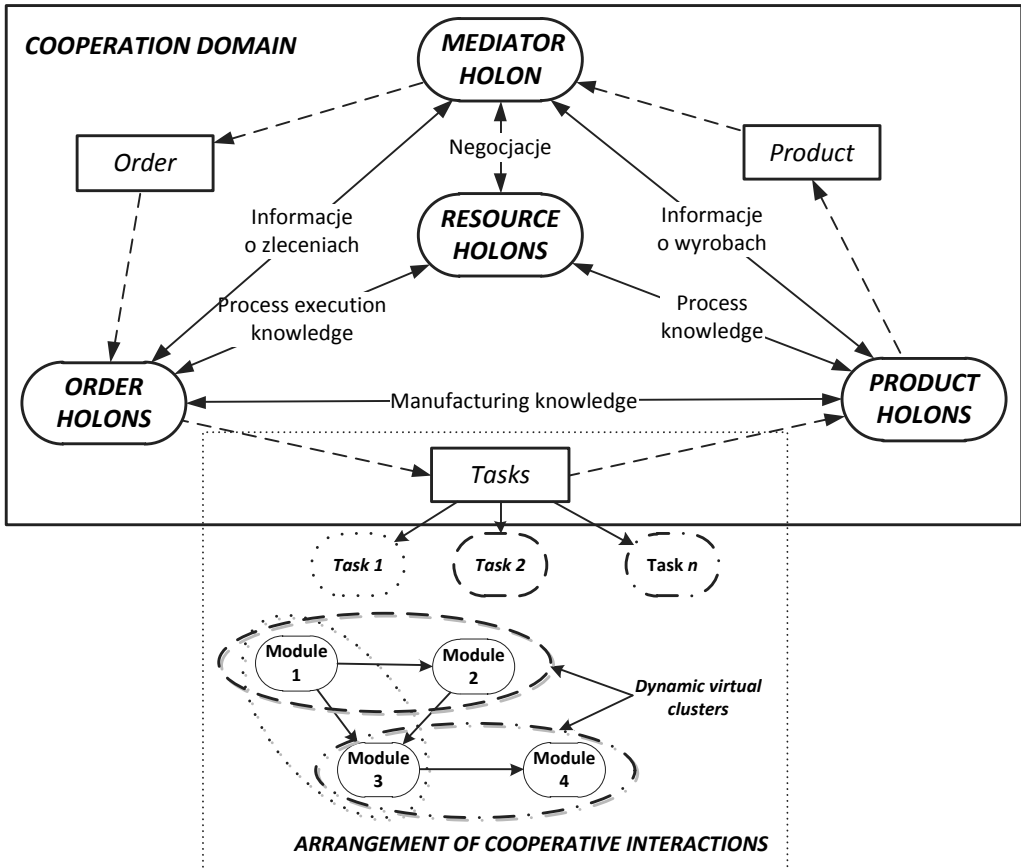
<sup>31</sup> M. Fletcher, E. Garcia-Gerreros, J.H. Christensen, S.M. Deenl, R. Mittmann, *An Open Architecture for Holonic Cooperation and Autonomy*, Proceedings of HoloMAS' 2000, Greenwich IEEE Computer Society, 2000

<sup>32</sup> X. Zhang, D.H. Norrie, *Holonic Control at the Production and Controller Levels*, /in:/ *Proceedings of the 2<sup>nd</sup> International Workshop on Intelligent Manufacturing Systems*, P. Valckenaers, H. Van Brussel (eds.) 1999, pp. 215-224

<sup>33</sup> M. Fletcher, E. Garcia-Gerreros, J.H. Christensen, S.M. Deenl, R. Mittmann, *op. cit.*

<sup>34</sup> M. Ulieru, R.W. Brennan, S.S. Walker, *The holonic enterprise: a model for Internet-enabled global manufacturing supply chain and workflow management*, Integrated Manufacturing Systems, Vol. 13, No. 8, 2002, pp. 538-550

Figure 1. Static and dynamic structure of network manufacturing system



Source: own research based on literature review

## The formation of a manufacturing structure

The formation of a manufacturing structure enables the ordering of distributed resources, which constitutes one of the main stages of the process of organization of the network manufacturing system under condition of resource distribution.<sup>35</sup> The aim of the formation of the manufacturing structure is to determine, using simulation modeling<sup>36</sup>, the system of cooperation interactions between the manufacturing modules that will be engaged in the carrying out of production tasks in a given situation. The formation of the manufacturing structure requires:

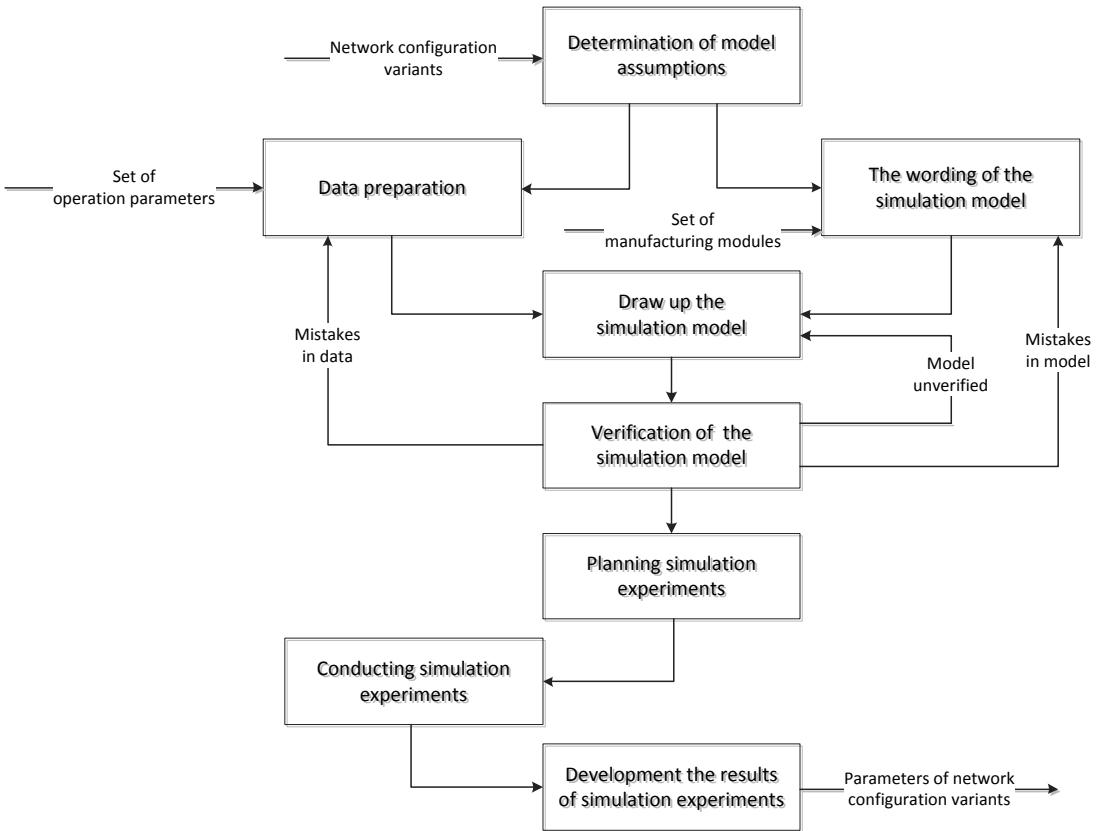
<sup>35</sup> K. Czajka, M. Dudek, *Organization of the network manufacturing system under condition of distributed resources*, *in: Contemporary issues and challenges of the organization management process: models – implementation – interrelation*, A. Jaki, T. Rojek, (eds.), Foundation of the Cracow University of Economics, Cracow, 2017, pp. 99-109

<sup>36</sup> The justification for the use of simulation modeling to forming the manufacturing structure can be found, among others in: Francalanza E., Borg J., Constantinescu C., *Deriving a Systematic Approach to Changeable Manufacturing System Design*, *Proceedings of the 47<sup>th</sup> CIRP conference on Manufacturing Systems: Variety Management in Manufacturing*, Procedia CIRP Vol. 17, 2014, s. 166-171;



- the determination of the possible variants of arrangement of cooperative interactions based on the specification of resource use cases (i.e. processing operations and transport operations) and the set of all cooperation interactions between manufacturing modules,
- the construction of a simulation model and carrying out a series of simulation experiments, and
- the assessment of the possible variants of arrangement of cooperative interactions that enable the selection of the target variant.

Figure 2. Utilization of simulation modeling for manufacturing structure formation.



Source: own research based on: J. Banks *Introduction to Simulation*, Proceedings of the 1999 Winter Simulation Conference (WSC), *Simulation – a bridge to the future*, Vol. 1., Miami, Florida, USA, 1999, pp.7-13

On the basis of simulations experiments performed on individual variants of arrangement of cooperative interactions, the assessment of particular variants is made to enable the selection of the most favorable variant under given production conditions. For the problem of the assessment of manufacturing structure variants, the view presented by H. Piekarz<sup>37</sup> should be taken. Working on the assumption that, as a result of the organizing process that orders and integrates individual elements of the system,

<sup>37</sup> H. Piekarz, *Efekt organizacyjny jako kryterium oceny systemu wytwórczego*, Seria: Monografie nr 102, Zeszyty Naukowe Akademii Ekonomicznej w Krakowie, Kraków 1991.

shapes its structure and influences the course of conducted processes, a specific type of effect occurs, being referred to as the organizational effect, the manufacturing structure is formed in such a manner that enables the goals set for the organized system to be achieved. Individual partial goals often remain in conflict with each other; this is, in particular, true to market orientation which manifests itself in the maximization of the customer satisfaction level, and effectiveness orientation which manifests itself in the maximization of profitability. In reference to the above, it should be recognized that, with respect to the assessment of distributed resource network configuration variants, the most important assessment criterion is effectiveness understood as the rational management of manufacturing resources in order that the product be manufactured in the shortest possible time and at the lowest possible cost.

The generally defined criterion for the assessment of distributed resource network configuration variants in terms of rational manufacturing resource management, requires, however, to be made more detailed in the context of manufacturing structure assessment. Achieving aims, which the manufacturing system fulfils through processes, is dependent on the appropriate decomposition of those processes into partial tasks that are then assigned to individual operational elements of the system, which are interconnected in a manner resulting from the manufacturing structure. To assess the variants of arrangement of cooperative interactions, it is proposed to use a measure – the configuration index ( $WK$ ) [1] that expresses, for the criterion of execution time minimization and the criterion of cost minimization, the agreement between the actually achieved effects and the expected effect.

The proposed measure enables the assessment of organizational effects achieved for individual variants of arrangement of cooperative interactions, compared to its normative value determined for the standard course of carrying out the integrated manufacturing process. Adopting the weights is dependent on the importance of the time criterion and the cost criterion in given market conditions. If there is time pressure, then the time criterion will have greater importance, and vice versa.

$$WK = w_t \cdot \frac{CT_{wz}}{CT_{war}} + w_k \cdot \frac{TC_{wz}}{TC_{war}} \quad [1]$$

where:

$WK$  – configuration index,

$w_t$  – weight of time criterion importance,

$w_k$  – weight of cost criterion importance,,

$CT_{wz}$  – production cycle time in the pattern of integrated manufacturing process,

$CT_{war}$  – production cycle time in the arrangement of cooperative interactions variant,

$TC_{wz}$  – cost of process execution in the pattern of integrated manufacturing process,

$TC_{war}$  – cost of process execution in the arrangement of cooperative interactions variant,

$w_t + w_k = 1$ .

The manufacturing structure requires the definition of the set of dynamic virtual clusters, to which production tasks will be assigned to be carried out. Based on the performed assessment, the arrangement of cooperative interactions with the maximum value of the configuration index is selected. Next, the schedule of carrying out the integrated manufacturing process in a selected arrangement of cooperative interactions is created. The selected arrangement of cooperative interactions is expected to guarantee the integrated manufacturing process to be carried out in a harmonious manner so that, as far as possible, the manufacturing modules performing individual operations do not wait for the delivery of work objects, the work objects do not wait for the availability of resources, or the tasks not to be completed with a large time advance, and individual activities associated with performing operations do not duplicate.

Based on the integrated manufacturing process performance schedule, production tasks are specified, for which dynamic virtual clusters are defined.

## Conclusion

The organization of the network manufacturing system under condition of resources distribution, which results in the creation of a static structure and a dynamic structure, enables, at the same time, the coordination of the interaction network to carry out a specific set of production orders. The static logic structure, which reflects the organization structure through the structural system described by relationships between products, orders and resources, provides network structuring, while the manufacturing structure enables its configuration in order to create values. The arrangement of cooperative interactions is a temporary network configuration that connects the parameters of manufacturing modules originating from different structures, such as operations, production techniques, production competences or production capacity.

## Bibliography

1. Banks J. *Introduction to Simulation*, Proceedings of the 1999 Winter Simulation Conference (WSC), *Simulation – a bridge to the future*, Vol. 1., Miami, Florida, USA, 1999, pp.7-13
2. Blanchard B.S., Fabrycky W.J., *Systems Engineering and Analysis*, Prentice Hall, New Jersey, 1990.
3. Czajka K., Essentials of organizing network manufacturing system in the environment of distributed resources, /in:/ *Managing organizations in changing environment: models – concepts – mechanisms*, A. Jaki, T. Rojek (eds.), , Foundation of the Cracow University of Economics, Cracow, 2014, s. 181-190.
4. Czajka K., Dudek M., *Organization of the network manufacturing system under condition of distributed resources*, /in:/ *Contemporary issues and challenges of the organization management process: models – implementation – interrelation*, A. Jaki, T. Rojek, (eds.), Foundation of the Cracow University of Economics, Cracow, 2017, pp. 99-109.
5. Czakon W., *Sieci w zarządzaniu strategicznym*, Oficyna Wolters Kluwer Business, Warszawa 2012.
6. Dekkers R., Luttervelt C.A.V., *Industrial networks: Capturing changeability?* International Journal of Networking and Virtual Organizations, No. 3, 2006, pp. 1-24.
7. Dembinski P., *Very Large Enterprises, Focal Firms and Global Value Chains*, Revista de Economia Mundial, Vol. 23, 2009, s. 107-130.
8. Dudek M., *Organizacja rozproszonych zasobów produkcyjnych w sieci*, /in:/ *Dylematy współczesnych przedsiębiorstw w procesie restrukturyzacji. Dywersyfikacja – integracja – rozwój*, R. Borowiecki, A. Jaki (eds.), Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2011, pp. 391-403.
9. Dudek M., *Projektowanie szczupłych systemów wytwarzania*, Difin, Warszawa 2016.
10. Dudek M., *Szczupłe systemy wytwarzania*, Difin, Warszawa 2016.
11. Fletcher M., Garcia-Gerreros E., Christensen J.H., Deenl S.M., Mittmann R., *An Open Architecture for Holonic Cooperation and Autonomy.*, Proceedings of HoloMAS' 2000, Greenwich IEEE Computer Society, 2000
12. Francalanza E., Borg J., Constantinescu C., *Deriving a Systematic Approach to Changeable Manufacturing System Design*, *Proceedings of the 47<sup>th</sup> CIRP conference on Manufacturing Systems: Variety Management in Manufacturing*, Procedia CIRP Vol. 17, 2014, s. 166-171
13. Grandori A., Soda G., *Inter-Firm Networks: Antecedents, Mechanisms and Forums*, Organization Studies, Vol. 16, No. 2, 1995, pp. 183-214
14. Jarvensivu T., Moller K., *Metatheory of Network Management: A Contingency Perspective.*, Industrial Marketing Management, Vol. 38, 2009, pp. 654-661.

15. Kozina A. (eds.), *Wybrane problemy zarządzania relacjami w przedsiębiorstwie*, Wydawnictwo Mfiles.pl, Kraków 2015.
16. Mazur Z., *Zarządzanie procesami w systemach wytwarzania*. Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, Kraków 2007.
17. Mazurczak J., *Projektowanie struktur systemów produkcyjnych*, Wydawnictwo Politechniki Poznańskiej, Poznań 2005.
18. McFarlane D.C., *Modular Distributed Manufacturing Systems and the implications for integrated control*, Proceedings of IEE Colloquium on Choosing the Right Control Structure, London, UK, 1998.
19. Nylund H., Salminen K., Anderson P.H., *Framework for Distributed Manufacturing Systems, /in:/ Enabling Manufacturing Competitiveness and Economic Sustainability*, H.A., ElMarghy (eds.), Springer, Montreal 2011, s. 172-177
20. O'Neill H., Sackett P., *The Extended Manufacturing Enterprise Paradigm*, Management Decision, Vol. 32, No. 8, 1994 pp. 42-49.
21. Piekarczyk A., Zimniewicz K., *Myślenie sieciowe w teorii i praktyce*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2010.
22. Piekarz H., *Efekt organizacyjny jako kryterium oceny systemu wytwórczego*, Seria: Monografie nr 102, Zeszyty Naukowe Akademii Ekonomicznej w Krakowie, Kraków 1991.
23. Powell W.W., *Neither market nor hierarchy: Network forms of organization.*, Research in Organizational Behavior, Vol. 12, 1990.
24. Sousa P., Silva N., Heikkilä T., Kollingbaum M., Valckenaers P., *Aspects of co-operation in distributed manufacturing systems*, Proceedings of the 2<sup>nd</sup> International Workshop on Intelligent Manufacturing Systems, Leuven, Belgium, September 1999, pp. 695-717
25. Ulieru M., Brennan R.W., Walker S.S., *The holonic enterprise: a model for Internet-enabled global manufacturing supply chain and workflow management.*, Integrated Manufacturing Systems, Vol. 13, No. 8, 2002, pp. 538-550
26. Zakrzewska – Bielawska A., *Strategie przedsiębiorstw w sieci. Wyniki badań firm high-tech. /in:/ Zarządzanie strategiczne. Strategie sieci i przedsiębiorstw w sieci*, R. Krupski (eds.), Prace Naukowe Wałbrzyskiej Wyższej Szkoły Zarządzania i Przedsiębiorczości, t. 32, pp. 439 – 457, Wałbrzych 2015
27. Zhang X., Norrie D.H., *Holonic Control at the Production and Controller Levels, /in:/ Proceedings of the 2<sup>nd</sup> International Workshop on Intelligent Manufacturing Systems*, P. Valckenaers, H. Van Brussel (eds.) 1999, pp. 215-224

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# THE CONDITIONS AND FACTORS OF DEVELOPMENT OF THE SME SECTOR ENTERPRISES IN THE ASPECT OF REGIONAL DEVELOPMENT

## *Summary*

*The publication presents the conditions and aspects of development characterising the SME sector enterprises, namely micro-, small and medium-sized business entities, with particular attention to the problems of regional development. Empirical research concerning developmental relations between the development of Polish regions and the development of SMEs in Poland indicate strong links between the potential of the SME sector and the synthetically expressed measure of regional development, shaping their level, arrangement and the links themselves. This chapter provides an adequate analysis with regard to the conditions and factors of this process.*

\* \* \*

## **Introduction**

Development, being a manifestation of all forms of life, is the object of interest of philosophy, natural and social sciences, including economic studies<sup>1</sup>. Development is the superior and fundamental value<sup>2</sup>, and in the common understanding it is treated as a long-term process of targeted changes in which we can distinguish consecutive phases and stages of transformations<sup>3</sup>, and is related to the recorded change

<sup>1</sup> S. Chomątowski, *Rozwój przemysłu w świecie*, Cracow University of Economics, Kraków 1986, p. 8.

<sup>2</sup> F. Piontek, B. Piontek, *Teoria rozwoju*, PWE, Warszawa 2016, T. Borys, *Aksjologiczne podstawy rozwoju*, [in:] *Humanistyczne, ekonomiczne i ekologiczne aspekty kategorii „rozwój”*, eds. F. Piontek, J. Czarny Zeszyty Naukowe No. 40 College of Economics and Administration, Komitet Człowiek i Środowisko przy prezydium PAN, Warszawa-Bytom 2005, p. 86.

<sup>3</sup> J. Brózda, *Konceptualizacja kategorii rozwoju* [in:] *Rozwój przedsiębiorstw: modele, czynniki, strategie*, ed. M. Białasiewicz, Rozprawy i Studia, Vol. 414, University of Szczecin, Szczecin 2002, p. 12.

and adherent structure<sup>4</sup>. The changes are of irreversible character and take place in the structure of complex objects, namely systems<sup>5</sup>. Their completion time and the division into individual phases and stages is varied and depends on the types of systems the changes concern<sup>6</sup>.

According to W. Gabrusewicz, the development of an enterprise is understood as the evolutionary and long-term process of targeted quantitative and qualitative changes leading from forms simpler, relatively little varied, to forms or states more complex and more varied, significantly transforming the inner structure of an enterprise and its mode of operation<sup>7</sup>. It is assessed and assumed as a justified statement that just like the changeability of matter is the motor of any development, the essence of an enterprise consists in changes made in it. It means that in its development an enterprise undergoes constant and unavoidable changes being the basis of its development<sup>8</sup>, and the only permanent thing in an organisation is change<sup>9</sup>. In this spirit, J. Machaczka interprets development as the liquidation of a developmental gap, that is the difference between potential and real achievements and as the improvement in the position of an organisation in its environment<sup>10</sup>. It should be emphasised that an enterprise which develops in a given environment is integrally related to it<sup>11</sup>. One of the elements of the environment is also the area within which the enterprise functions, and which can be a commune, a poviats or a region.

### The issue of regional development – the outline of the problem

The word “region” comes from a Latin “*regio, regionis*” and means straight movement, but also the specified space and the direction setting it, such as a: province, district, land. According to the administrative approach, region is defined as a strictly established area of a country, in which an economic complex is visible with a specific profile or specialisation with the isolated administrative and economic centre<sup>12</sup>, constituting the basic element of the spatial arrangement of the country<sup>13</sup>.

However, it should be noted that region as an elementary term is ambiguous, quite general and is of multi-dimensional character, and moreover it is used in different meanings, although there is a division into basically two approaches<sup>14</sup>:

- region in the natural approach, that is a physical and geographical region, and
- region in the economic approach.

<sup>4</sup> Z. Szymła, *Regionalne uwarunkowania rozwoju przemysłu*, Ossolineum Zakład Narodowy imienia Ossolińskich, Wrocław-Warszawa-Kraków 1994, p.11.

<sup>5</sup> Ibidem.

<sup>6</sup> B. Siuta-Tokarska, *Characteristic Growth Factors of Small and Medium-Sized Enterprises from the Perspective of Selected Multidirectional and Varied Results of Empirical Research*, British Journal of Economics, Management & Trade, Vol. 14, Issue 02/2016, pp.1-14.

<sup>7</sup> W. Gabrusewicz, *Planowanie rozwoju przedsiębiorstw przemysłowych*, TNOiK, Poznań 1990, p. 11.

<sup>8</sup> J. Adamczyk, *Koncepcja zrównoważonego rozwoju w zarządzaniu przedsiębiorstwem*, op. cit., p. 107.

<sup>9</sup> P. Drucker, *Praktyka zarządzania*, Czytelnik – Nowoczesność, Kraków 1994, p. 47 after: J. Adamczyk, *Koncepcja zrównoważonego rozwoju w zarządzaniu przedsiębiorstwem*, op. cit., p. 107.

<sup>10</sup> J. Machaczka, *Zarządzanie rozwojem organizacji. Czynniki, modele, strategia, diagnoza*, PWN, Kraków 1998, pp. 14-15; B. Siuta-Tokarska, *Podobieństwa i różnice w rozwoju przedsiębiorstw sektora MŚP z kapitałem krajowym i z udziałem kapitału zagranicznego. Analiza i ocena wyników badań*, Difin, Warszawa 2015, p. 21.

<sup>11</sup> A. Jaki, *Enterprise Development under Globalization and the New Economy Conditions*, The Business & Management Review, Vol. 2, No. 2/2012, pp. 279-286.

<sup>12</sup> S. Korenik, *Dysproporcje w rozwoju regionów Polski – wybrane aspekty*, Wyd. Akademii Ekonomicznej we Wrocławiu, Wrocław 2003, p. 50.

<sup>13</sup> Within the spatial regional arrangement we can distinguish so-called macro-regions (e.g. a few voivodeships), sub-regions (e.g. poviats) and micro-regions (e.g. communes).

<sup>14</sup> Z. Szymła, *Determinanty rozwoju regionalnego*, op. cit., p. 9.

Region in the economic approach is discussed as<sup>15</sup>:

- the tool of a study,
- the tool of action, and
- the object of cognition.

Among numerous attempts to define the notion of region in terms of<sup>16</sup>and considering the three aforementioned approaches to its analysis, we can assume following R. Domański that a region is “a shaped or shaping economic system whose elements are related to each other and to the natural environment by means of relations of co-occurrence and co-dependence, and to the external environment – by means of relations of co-dependence of great intensity”<sup>17</sup>. In addition, taking into consideration retrospective dependencies and those of civilisation character, we can indicate following A. Markus that it is a historically conditioned area which is inhabited by a community having common socio-economic, political and cultural features<sup>18</sup>.

Thus, we can assume that the essence of a region is characterised by space – relatively uniform, with specific natural or acquired features, standing out and distinguished from other areas, and being a part of a bigger whole<sup>19</sup>, namely the area of the occurrence of complex of co-dependent features which distinguish it from the environment<sup>20</sup> (Table 1).

Table 1: The division of regions by the selected delimitation criteria<sup>21</sup>

Condition	Proximity of location		
	physical and geographical	economic and spatial	administrative
Features of distinction	biological, atmospheric, geological, hydrostatic	infrastructure, development, manufacturing traditions, settlement network, distribution system, specialisation, economic model	administrative arrangement of the state, political and social arrangements, administrative, statistical, economic, etc.

<sup>15</sup> Therefore, the theory of economic region plays three basic functions, namely the research, cognitive and application one. The research function is related to the development of methodological and methodical bases for research and studies within that scope. The cognitive function refers to co-participation in the perception of reality, and the application function – to formulating conclusions for the realisation of the regional policy. The functions are mutually related.

<sup>16</sup> For more on that, see: A. Szewczuk, M. Kogut-Jaworska, M. Ziolo, *Rozwój lokalny i regionalny. Teoria i praktyka*, Wyd. CH. Beck, Warszawa 2011, pp. 13-34.

<sup>17</sup> R. Domański, *Kształtowanie otwartych regionów ekonomicznych*, PWN, Warszawa 1972, p. 7.

<sup>18</sup> A. Markusen, *Regions: The Economics and Politics of Territory*, Rowman&Littlefield, New York 1987, pp. 16-17, cited after: J. Pasieczny, *Profile gmin w Polsce – zarządzanie rozwojem i zmianami*, Wyd. Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2008, p. 20.

<sup>19</sup> J. Grzela, *Region, regionalizm, regionalizacja – wybrane aspekty teoretyczne*, Studia i Materiały, Miscellanea Oeconomicae No. 1/2011, p. 12.

<sup>20</sup> J. Korol, E. Kusideł, P. Szczuciński, *Przedsiębiorczość, produktywność i konkurencyjność regionów Polski*, Wyd. Adam Marszałek, Toruń 2016, p. 9.

<sup>21</sup> The literature, among the criteria of delimitation of regions distinguishes, among others: economic, population and area, ethnical and historical, cultural, organisational and structural or structural and settlement. Cited after: J. M. Nazarczuk, *Potencjał rozwojowy a aktywność inwestycyjna województw i podregionów Polski*, Wyd. Uniwersytetu Warmińsko-Mazurskiego w Olsztynie, Olsztyn 2013, p. 16.

Condition	Proximity of location		
Distinguished spatial objects	lands, provinces, depots	basins, districts, provinces	voivodeships
Types of regions	geographical region natural region climatic region anthropological region, etc.	economic region, socio-economic region	administrative region

Source: S. Korenik, *Rozwój regionu ekonomicznego na przykładzie Dolnego Śląska*, Wyd. AE we Wrocławiu, Wrocław 1999, p. 10.

The literature of the subject indicates five main components – dimensions concerning the regional issue. These are<sup>22</sup>:

- space, including order and development of the region,
- regional ecosystem,
- inhabitants of the region,
- regional infrastructure, and
- regional economy, including the economic structure and potential.

The notion of regional development is often explained as the permanent growth of its economic potential, with the systematic and permanent improvement of competitive power, as well as the quality and level of the inhabitants' living, which in turn contributes to the socio-economic development of the country as a whole<sup>23</sup>, with the assumption of the socio-economic cohesion in the spatial and regional arrangement. It is worth mentioning that in the case of regions it is indicated that their development takes place in phases with different intensity in time, however departing from the processes of the development describing the whole national economy<sup>24</sup>.

In the context of the problems of regional development, we can isolate two key notions related to it, namely the mechanism of regional development and the concept of this development. Under the mechanism of regional development we understand the way of linking conditions to the factors of development with the observable effects in the socio-economic, ecological and spatial sphere of the region, and under the concept of regional development – the adopted way of explaining this mechanism<sup>25</sup>. Among the indicated types of the mechanisms of regional development we can distinguish<sup>26</sup>:

- 1) the mechanism based on market regulators of development within which, according to neoliberal doctrine, the most effective mechanism of linking resources to the results obtained is the market;
- 2) the mechanism based on interventional influence of policy, especially through the instruments of the regional development policy within, according to the neo-keynesian doctrine, there is a need for the active role of the state in the context of regional development challenges;

<sup>22</sup> Ibidem, p. 14; J. Kudełko, *Rozwój regionalny a konkurencyjność regionów* [in:] *Uwarunkowania rozwoju i konkurencyjności regionów*, ed. Z. Ziolo, Institute of Economy, University of Information Technology and Management in Rzeszów, Department of Entrepreneurship and Spatial Economy, the Institute of Geography of Pedagogical University of Kraków, Kraków-Rzeszów 2005, p. 60.

<sup>23</sup> J. Chądzyński, A. Nowakowska, Z. Przygodzki, *Region i jego rozwój w warunkach globalizacji*, CeDeWu, Warszawa 2007, pp. 43-44.

<sup>24</sup> S. Korenik, *Potencjał rozwojowy regionów Polski w 2006 roku. Wybrane zagadnienia* [in:] *Problemy i efekty polityki spójności w polskich regionach*, ed. A. Prusek, Cracow University of Economics, Higher School of Economics and Management, Krakow 2009, p. 48.

<sup>25</sup> Ibidem, p. 21.

<sup>26</sup> Ibidem, pp. 21-22.



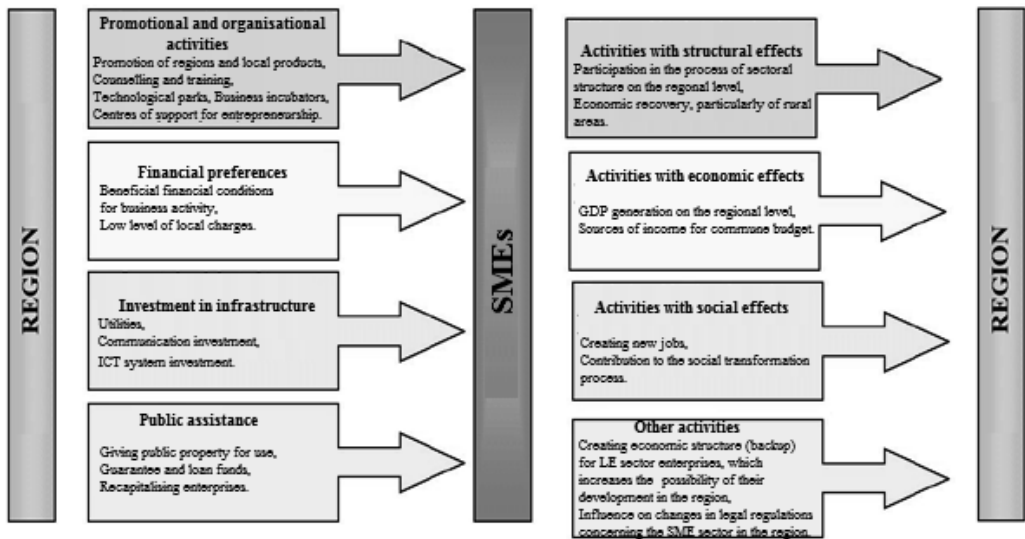
3) the mechanism constituting the combination of market and interventional regulators of regional development.

Economic practice basically uses the third type of regional development mechanism, and none of the previous ones generally occur in its pure form.

Thus, regional development should be perceived in the categories of changes in the co-existing and co-dependent, shaped and shaping economic, social, technical and technological, as well as ecological systems of the defined spaces which are related to the permanent replacement of the existing states of affairs through their better, that is assessed positively from the point of view of the adopted criteria, equivalents<sup>27</sup>.

Between individual areas in the spatial and economic and spatial arrangement, including regions, there are specific variations of their level of economic and social development which are of objective character<sup>28</sup>. In effect, the differences concerning the conditions of the geographical environment and the influence of the factors of geographical and social development contribute to non-uniform dynamics of the development of regions<sup>29</sup>, which also affects the development of the sector of enterprises. The scope of connections between the SME sector enterprises and the regional environment in which they operate are presented in Figure 1.

Figure 1: Activities connecting the region and the SME sector enterprises on the path to their development



Source: K. Wach, *Rola państwa i samorządu terytorialnego w rozwoju małych i średnich przedsiębiorstw w Polsce*, Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego No. 2, Gdańsk 2004, pp. 54, 60 with the use of ownmapping.

<sup>27</sup> D. Głuszczyk, *Istota rozwoju regionalnego i jego determinanty*, *Ekonomia/Economics* 5 (17)/2011, p. 74.

<sup>28</sup> Z. Szymła, *Determinanty rozwoju regionalnego*, Ossolineum, Wrocław 2000, p. 7.

<sup>29</sup> Ibidem.

## Conditions and factors of the development of SMEs

A condition(-s) is a feature or a set of features on which the existence of something, as well as a situation in a given field depend. Other terms are: state, circumstances in which something happens<sup>30</sup>. On the other hand, a “factor” comes from the notion of activity and is one of its elements – a cause<sup>31</sup>. Therefore, an activity is a form of an active attitude of an individual to reality or the process focused on achieving a goal, in which the structure shapes depending on the occurring conditions<sup>32</sup>. With regard to the process which development is, mutual relations between the condition and the factor are indicated<sup>33</sup>.

It is assumed that the conditions of development have less direct influence than the factors of development, as they are of potential character. They can occur in a given place and time but it is also possible that there will not be any. The occurrence of the conditions of development creates the possibility of the emergence and development<sup>34</sup>. The condition is an element necessary to perform an action, and the condition triggers a given process which is then confronted with conditions. Moreover, the conditions of development are basically non-controllable from the position of a specific subjective arrangement, contrary to factors which are characterised by controllability<sup>35</sup>. A factor is taking active position to reality, whereas a condition may be of a natural, technical or socio-political character<sup>36</sup>. Thus, the conditions of development are usually static and are shown as resources, whereas factors are dynamic and are shown as streams<sup>37</sup>.

Among the conditions of development, we distinguish three basic groups<sup>38</sup>:

- natural conditions of material character, such as: geographical location, raw resources, water resources, the state of the environment, and of personal character, such as: the demographic situation of a country, region or a place, the level of professional preparation and the qualifications of the staff, the absorptiveness of the internal and foreign market;
- conditions shaped as a result of the development so far: technical and social infrastructure, the level of development of the national economy, the level of the development of science and technique, the possibility to invest in development;
- socio-political and historical conditions: historical development of a given area, socio-economic system and the form of the ownership of means of production.

With regard to the factors of development, we can assume that the factors of development shape developmental processes within given conditions<sup>39</sup> and as B. Winiarski points out, they are strictly

<sup>30</sup> *Słownik wyrazów obcych*, PWN, Warszawa 1991, p. 898.

<sup>31</sup> J. Stanienda, *Determinanty rozwoju i konkurencyjności przedsiębiorstw w regionie*, Małopolska Wyższa Szkoła Ekonomiczna w Tarnowie, Tarnów 2006, p. 24.

<sup>32</sup> *Encyklopedia powszechna PWN*, PWN, Warszawa 1982, p. 150.

<sup>33</sup> See also: A. Kaleta, *Zewnętrzne i wewnętrzne warunki rozwoju przedsiębiorstw* [in:] *Przedsiębiorczość i innowacyjność małych i średnich przedsiębiorstw – wyzwania współczesności*, eds. A. Kaleta, K. Moszkowicz, L. Woźniak, Prace Naukowe Akademii Ekonomicznej im. O. Langego we Wrocławiu, No. 1030, Wrocław University of Economics, Wrocław 2004.

<sup>34</sup> S. Chomątowski, *Dynamika rozwoju a efektywność systemów przemysłowych*, Zeszyty Naukowe, specialseries: Monografia 19, No. 115, Wyd. Akademii Ekonomicznej w Krakowie, Kraków 1993, p. 39.

<sup>35</sup> T. Kudłacz, *Programowanie rozwoju regionalnego*, op. cit., p. 20.

<sup>36</sup> J. Stanienda, *Determinanty rozwoju i konkurencyjności przedsiębiorstw w regionie*, op. cit., p. 24.

<sup>37</sup> S. Chomątowski, *Warunki a czynniki rozwoju przedsiębiorstwa. Próba identyfikacji i klasyfikacji* [in:] *Restrukturyzacja w procesie przekształceń i rozwoju przedsiębiorstw*, ed. R. Borowiecki, Cracow University of Economics, TNOiK, Kraków 1996, p. 175.

<sup>38</sup> S. Chomątowski, *Dynamika rozwoju a efektywność systemów przemysłowych*, op. cit., p.40.

<sup>39</sup> M. Warczak, *Endogeniczne i egzogeniczne czynniki rozwoju gospodarczego z perspektywy gminy*, *Współczesna Gospodarka* Vol. 6, Issue 4/2015, p. 113.

correlated with the general conditions of development<sup>40</sup>, in effect of which the factors of development are determined by the scale and the level of use of the existing conditions of development.

When discussing the factors of development, we should remember that the same factor may turn out to be a driver of development of a given research subject (a firm, a region), whereas for another one it may not evoke changes significant for its development. Therefore, considering a variety of possibilities, it is worth paying attention to the typology of the factors of development (Table 2).

Table 2: Typology of the factors of development

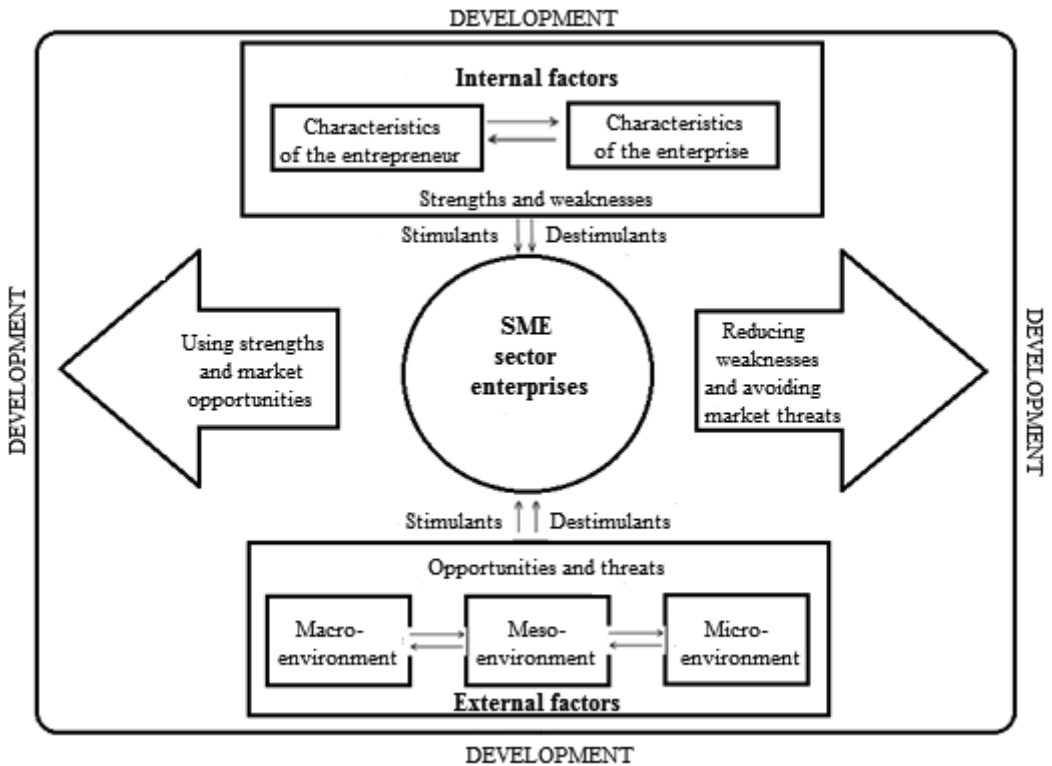
No.	Criterion of division	Specification
1.	Causes (motives) of the implementation of development	Factors ensuring the fulfilment of existential needs Factors ensuring the fulfilment of material and welfare needs, Factors ensuring the fulfilment of higher needs.
2.	Significance for development	Determinants, namely factors of fundamental significance for development, Stimulators and regulators of development, i.e. very important factors, Modifiers of development – important factors.
3.	Directness of influence	Factors exerting direct influence (direct ones), Factors exerting indirect influence (indirect ones).
4.	Scope of influence	Factors exerting comprehensive influence (e.g. cause quantitative, qualitative changes and changes in the structure), Factors exerting partial influence (e.g. cause only quantitative changes).
5.	Character of influence	Positive factors, i.e. conducting development, Negative factors, i.e. limiting development (barriers to development).
6.	Rationalisation of development activities	Maximisation of stimulants, Optimisation of nominants, Minimisation of destimulants.
7.	Sources of factors	Internal factors, External factors.
8.	Objectification	Material factors, Immaterial factors.
9.	Identification feature	Factors of an individual and group character, i.e. characteristic for an individual subject, states or things or a group of them.
10.	Economic level of influence	Factors on the macroeconomic level, Factors on the mesoeconomic level, Factors on the microeconomic level.
11.	Complementarity and sustainability of factors	Factors which do not require complementation and strengthening and factors which complementation and strengthening, Factors which can be replaced by others and factors of a non-substitutive character.
12.	Management and organisational aspect	Factors of ownership and supervisory character (natural persons, private organisational and legal entities, a commune, the Treasury), Factors concerning the class of the size of an entity and the attributes of a unit, Factors concerning risk management and relations with regard to the external environment of the enterprise.

Source: own study.

<sup>40</sup> B. Winiarski, *Polityka regionalna*, PWE, Warszawa 1976, p. 225, cited after: M. Warczak, *Endogeniczne i egzogeniczne czynniki rozwoju gospodarczego z perspektywy gminy*, op. cit., p. 113.

In general, it is assumed that the development of an enterprise, including SMEs (micro, small and medium-sized entities), all factors may have a stimulating and destimulating character. It means that factors may influence the development positively or be a restraint of the enterprise development, and even their influence may cancel each other out.

Figure 2: Internal and external factors in the process of the development of SMEs



Source: M. Matejun, *Czynniki rozwoju małych i średnich przedsiębiorstw na podstawie badań w mikroregionie łódzkim* [in:] *Teoria i praktyka zarządzania rozwojem organizacji*, ed. by S. Lachiewicz, A. Zakrzewska-Bielawska, Wydawnictwo Politechniki Łódzkiej, Łódź 2008, p. 153; R. Lisowska, *External Determinants of the Development of Small and Medium-Sized Enterprises – Empirical Analysis*, *Journal of Entrepreneurship, Management and Innovation* Vol. 11, Issue 4/2015, p. 123 with the use of own mapping.

What is important to an enterprise are factors exerting positive influence on its development, although factors impacting it negatively should be also taken into consideration in order to eliminate them. Both a positive and negative impact of individual factors on the development of every enterprise is always relative, if we disregard its internal situation and its place in the environment. The same factor may turn out to be a driving force of development in one enterprise, and in another firm it may not evoke changes which would be significant for its development since there are no conducive conditions for that.

Therefore, skipping the situation of the enterprise in its external and internal conditionings in research cannot lead to the correct explanation of the role of individual factors<sup>41</sup>.

## Conclusion

When discussing the role of individual factors in the development of an enterprise, we should take into consideration the current level of the enterprise development to which all these factors refer, as they may have a different power of influence and bring about different results in firms with different levels of development. Within shaping the development of an enterprise we should consider factors which depend on the enterprise accordingly to the possessed level of development, and give up those which do not match the level of the enterprise advancement in development, even if they are assessed as beneficial for the broadly understood development<sup>42</sup>. Therefore, in enterprises which are backward in terms of development, developmental paths of enterprises with the advanced level of development should not be imitated. Developmental paths of individual enterprises are most often unique, the more so if the conditions of their development are different<sup>43</sup>.

Just like in the case of enterprises, also with regard to regions an important problem considered in the subject area of their development is the differentiation of endogenous (internal) exogenous (external) factors<sup>44</sup>. It arises from the fact of the required engagement of both factors in this process with the simultaneous improvement of intraregional and interregional policy of the state<sup>45</sup>.

As empirical research shows, these are endogenous factors which are the main causative power, and so-called ability of the region to react to changes in its environment, bridging endo- and exogenous factors of development, is also a significant component of this process.

To conclude the deliberations concerning the enterprise and the region in the light of developmental processes, it should be emphasised that the implementation of both quantitative and qualitative changes/transformations taking place in the level and economic structure at the level of an enterprise, and at the regional level (considering the conditions and factors of development, the elements of subsystems and the closer and further environment, as well as the system of organisation and strategic management of development processes with the definition of the level of economic culture and economic progress) are the essence of the undertaken deliberations<sup>46</sup>.

## Bibliography

1. Adamczyk J., *Koncepcja zrównoważonego rozwoju w zarządzaniu przedsiębiorstwem*, Cracow University of Economics, Kraków 2001.
2. Borys T., *Aksjologiczne podstawy rozwoju*, [in:] *Humanistyczne, ekonomiczne i ekologiczne aspekty kategorii „rozwój”*, ed. F. Piontek, J. Czarny, Zeszyty Naukowe No. 40 College of Economics and Administration, Komitet Człowiek i Środowisko przy prezydium PAN, Warszawa-Bytom 2005.
3. Brózda J., *Konceptualizacja kategorii rozwoju*, [in:] *Rozwój przedsiębiorstw: modele, czynniki, strategie*, ed. M. Białasiewicz, Rozprawy i Studia, Vol. 414, Uniwersytet Szczeciński, Szczecin 2002.

<sup>41</sup> W. Gabrusewicz, *Rozwój przedsiębiorstw przemysłowych i jego ocena w gospodarce rynkowej*, op. cit., p. 41.

<sup>42</sup> Ibidem, p. 47.

<sup>43</sup> Ibidem, pp. 47–48.

<sup>44</sup> A. Potoczek, *Polityka regionalna i gospodarka przestrzenna*, TNOiK, Toruń 2003, p. 47.

<sup>45</sup> Ibidem.

<sup>46</sup> A. Łuczyszyn, *Nowe kierunki rozwoju lokalnego, ze szczególnym uwzględnieniem peryferyjnych ośrodków w metropoliach*, CeDeWu, Warszawa 2013, p. 51.

4. Chądzyński J., Nowakowska A., Przygodzki Z., *Region i jego rozwój w warunkach globalizacji*, CeDeWu, Warszawa 2007.
5. Chomątowski S., *Dynamika rozwoju a efektywność systemów przemysłowych*, Zeszyty Naukowe, Monografia 19, No 115, Cracow University of Economics, Kraków 1993.
6. Chomątowski S., *Rozwój przemysłu w świecie*, Cracow University of Economics, Kraków 1986.
7. Chomątowski, *Warunki a czynniki rozwoju przedsiębiorstwa. Próba identyfikacji i klasyfikacji* [in:] *Restrukturyzacja w procesie przekształceń i rozwoju przedsiębiorstw*, ed. R. Borowiecki, Cracow University of Economics, TNOiK, Kraków 1996.
8. Domański R., *Kształtowanie otwartych regionów ekonomicznych*, PWN, Warszawa 1972.
9. Drucker P., *Praktyka zarządzania*, Czytelnik – Nowoczesność, Kraków 1994.
10. Gabrusewicz W., *Planowanie rozwoju przedsiębiorstw przemysłowych*, TNOiK, Poznań 1990.
11. Głuszczyk D., *Istota rozwoju regionalnego i jego determinanty*, *Ekonomia/Economics* 5 (17)/2011.
12. Grzela J., *Region, regionalizm, regionalizacja – wybrane aspekty teoretyczne*, *Studia i Materiały, Miscellanea Oeconomicae* 1/2011.
13. Jaki A., *Enterprise Development under Globalization and the New Economy Conditions*, *The Business & Management Review*, Vol. 2, No. 2/2012.
14. Kaleta A., *Zewnętrzne i wewnętrzne warunki rozwoju przedsiębiorstw*, [in:] *Przedsiębiorczość i innowacyjność małych i średnich przedsiębiorstw – wyzwania współczesności*, ed. A. Kaleta, K. Moszkowicz, L. Woźniak, *Prace Naukowe Akademii Ekonomicznej im. O. Langego we Wrocławiu*, No 1030, Uniwersytet Ekonomiczny we Wrocławiu, Wrocław 2004.
15. Korenik S., *Dysproporcje w rozwoju regionów Polski – wybrane aspekty*, Wyd. Akademii Ekonomicznej we Wrocławiu, Wrocław 2003.
16. Korenik S., *Potencjał rozwojowy regionów Polski w 2006 roku. Wybrane zagadnienia* [in:] *Problemy i efekty polityki spójności w polskich regionach*, ed. A. Prusek, Cracow University of Economics, Higher School of Economics and Management, Krakow 2009.
17. Korenik S., *Rozwój regionu ekonomicznego na przykładzie Dolnego Śląska*, Wyd. AE we Wrocławiu, Wrocław 1999.
18. Korol J., Kusideł E., Szczuciński P., *Przedsiębiorczość, produktywność i konkurencyjność regionów Polski*, Wyd. Adam Marszałek, Toruń 2016.
19. Kudelko J., *Rozwój regionalny a konkurencyjność regionów* [in:] *Uwarunkowania rozwoju i konkurencyjności regionów*, ed. Z. Ziolo, Institute of Economy, University of Information Technology and Management in Rzeszów, Department of Entrepreneurship and Spatial Economy, the Institute of Geography of Pedagogical University of Kraków, Kraków-Rzeszów 2005.
20. Kudłacz T., *Programowanie rozwoju regionalnego*, Wydawnictwo Naukowe PWN, Warszawa 1999.
21. Lisowska R., *External Determinants of the Development of Small and Medium-Sized Enterprises – Empirical Analysis*, *Journal of Entrepreneurship, Management and Innovation* Vol. 11, Issue 4/2015.
22. Łuczyszyn A., *Nowe kierunki rozwoju lokalnego, ze szczególnym uwzględnieniem peryferyjnych ośrodków w metropoliach*, CeDeWu, Warszawa 2013.
23. Machaczka J., *Zarządzanie rozwojem organizacji. Czynniki, modele, strategia, diagnoza*, PWN, Kraków 1998.
24. Markusen A., *Regions: The Economics and Politics of Territory*, Rowman&Littlefield, New York 1987.
25. Matejun M., *Czynniki rozwoju małych i średnich przedsiębiorstw na podstawie badań w mikroregionie łódzkim*, [in:] *Teoria i praktyka zarządzania rozwojem organizacji*, ed. S. Lachiewicz, A. Zakrzewska-Bielawska, Wydawnictwo Politechniki Łódzkiej, Łódź 2008.
26. Nazarczuk J.M., *Potencjał rozwojowy a aktywność inwestycyjna województw i podregionów Polski*, Wyd. Uniwersytetu Warmińsko-Mazurskiego w Olsztynie, Olsztyn 2013.

27. Pasieczny J., *Profile gmin w Polsce – zarządzanie rozwojem i zmianami*, Wyd. Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2008.
28. Piontek F., Piontek B., *Teoria rozwoju*, PWE, Warszawa 2016.
29. Potoczek A., *Polityka regionalna i gospodarka przestrzenna*, TNOiK, Toruń 2003.
30. *Słownik wyrazów obcych*, PWN, Warszawa 1991.
31. Siuta-Tokarska B., *Characteristic Growth Factors of Small and Medium-Sized Enterprises from the Perspective of Selected Multidirectional and Varied Results of Empirical Research*, British Journal of Economics, Management & Trade, Vol. 14, Issue 02/2016.
32. Siuta-Tokarska B., *Podobieństwa i różnice w rozwoju przedsiębiorstw sektora MŚP z kapitałem krajowym i z udziałem kapitału zagranicznego. Analiza i ocena wyników badań*, Difin, Warszawa 2015.
33. Stanienda J., *Determinanty rozwoju i konkurencyjności przedsiębiorstw w regionie*, Małopolska Wyższa Szkoła Ekonomiczna w Tarnowie, Tarnów 2006.
34. Szewczuk A., Kogut-Jaworska M., Ziolo M., *Rozwój lokalny i regionalny. Teoria i praktyka*, Wyd. CH. Beck, Warszawa 2011.
35. Szymła Z., *Regionalne uwarunkowania rozwoju przemysłu*, Ossolineum Zakład Narodowy imienia Ossolińskich, Wrocław-Warszawa-Kraków 1994.
36. Szymła Z., *Determinanty rozwoju regionalnego*, Ossolineum, Wrocław 2000.
37. Wach K., *Rola państwa i samorządu terytorialnego w rozwoju małych i średnich przedsiębiorstw w Polsce*, Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego, No 2, Gdańsk 2004.
38. Warczak M., *Endogeniczne i egzogeniczne czynniki rozwoju gospodarczego z perspektywy gminy*, Współczesna Gospodarka Vol. 6, Issue 4/2015.
39. Winiarski B., *Polityka regionalna*, PWE, Warszawa 1976.





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# THE EMPLOYER BRANDING AS PART OF THE VALUE CREATION IN THE COMPANY

## *Summary*

*One of the areas of the value creation by the companies is employer branding. Enterprises are interested in creation of the a “good employer” brand, because – to first – do not lose valuable and talented employees, and secondly – to acquire new ones. Employer branding is not limited to the imposed regulations to protect workers. Enterprises are increasingly introduce additional facilities eg. For young mothers, create additional health fund, create internship programs, etc.. These actions – if they do not have the characteristics of sham activities – represent real value for employees and are cause to bind them with the company for longer. This in turn translates into better quantity and quality of people recruited, and enhanced employee productivity.*

\* \* \*

## **Introduction**

The brand is one of the factors enabling to obtain long-term market advantage of companies and most often is referred to products or services. The principles of branding are increasingly used in other functional areas of business, such as human resource management. Enterprises desiring to provide access to adequately prepared employees increasingly take action to creation their brand as a good employer.

The employer branding has the same theoretical basis as consumer branding and corporate branding. The employer communicates its goals, core values and strategy for current and potential employees, using available communication channels, including social media, in a way that will allow for its favourable differentiation from competitor offerings.

The interest in the employer branding by companies can be traced to two causes. These are – firstly – the growing importance of the concept of corporate social responsibility, and secondly – the current situation that prevails in the labour market.

In the era of public acceptance for the concept of corporate social responsibility more and more companies is not limited to concern for safe working conditions, which for some means only the compliance with the regulations governing the area of health and safety in the company, but consciously creates the employer brand, taking care of development and employee satisfaction. Rationale for this

approach to employees is also the situation that prevails in the labour market. In the era of the so-called – employee’s market, employers more and more strongly try to – on the one hand – not to lose good employees, and on the other – to encourage potential candidates to work in the company.

The article defined the concept of employer branding and gives examples of activities that are used in the process of creation of employer brand. In the research part, efforts were made to verify that the recommended measures are taken by employers in practice and how these activities are evaluated by employees.

### **The term and the essence of employer branding**

According to the American Marketing Association, a brand is “a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors”<sup>1</sup>. A similar definition writes D. Aaker. He defines brand as the name and / or symbol (such as a logo, trademark, packaging), designed to identify the goods or services of a single or group of sellers and to differentiate between competitors. In his view, the brand signals the essence of the product, protecting both the consumer and the manufacturer before competitors who want to offer identical goods<sup>2</sup>. The concept of brand and branding have been greatly expanded. Already Chernatony L. and M. McDonald define brand as a product or service, person or place, clearly distinguishable from the others and presented in such a way that the buyer or the user can easily see the relevant unique added value, which best meet their needs<sup>3</sup>. We can therefore speak today about the – for example – place brand, personal brand, and the employer brand.

The term employer branding suggests the differentiation of a firms’ characteristics as an employer from those of its competitors. The employment brand highlights the unique aspects of the firm’s employment offerings or environment<sup>4</sup>. T. Ambler and S. Barrow define the employer brand in terms of benefits, calling it “the package of functional, economic and psychological benefits provided by employment, and identified with the employing company”<sup>5</sup>. According to S. Lloyd employer branding has been described as the “sum of a company’s efforts to communicate to existing and prospective staff that it is a desirable place to work”<sup>6</sup>. J. Sullivan defines this term more broadly. According to him employer branding is “a targeted, long-term strategy to manage the awareness and perceptions of employees, potential employees, and related stakeholders with regards to a particular firm”<sup>7</sup>. The addressees of the taken actions are both prospective employees and persons employed. From this point of view, it is important to communicate the strategy, that’s Means the firm’s value system, policies and behaviours to both within and outside the company.

The care and concern for the image of the employer is not something entirely new. Philanthropic entrepreneurs are known both in Poland and outside our country. In Poland, the development of philanthropy took place in earnest in the second half of the nineteenth century, mainly inspired by the positivist ideas. Businesses supported the art and culture, but also the development of vocational education, contributed to the social facilities for the staff, including factory settlements, health care, etc.

<sup>1</sup> Kotler Ph., Armstrong G., *Principles of Marketing*, Prentice Hall International, London 1989, p. 248.

<sup>2</sup> Aaker D., *Managing Brand Equity. Capitalizing on the Value of a Brand Name*, The Free Press, New York 1991, p. 7.

<sup>3</sup> DeChernatony L., McDonald M., *Creating Powerful Brands*, Butterworth—Heinemann, Oxford 1998, p. 25.

<sup>4</sup> Backhaus K., Tikoo S., *Conceptualizing and researching employer branding*, “Career Development International”, 2004, Vol. 9 Iss: 5, pp. 501-517.

<sup>5</sup> Ambler T., Barrow S., *The employer brand*, “Journal of Brand Management”, 1996, Vol. 4, pp. 185-206.

<sup>6</sup> Lloyd S., *Branding from the inside out*, “BRW”, 2002, Vol. 24, No. 10, pp. 64–66.

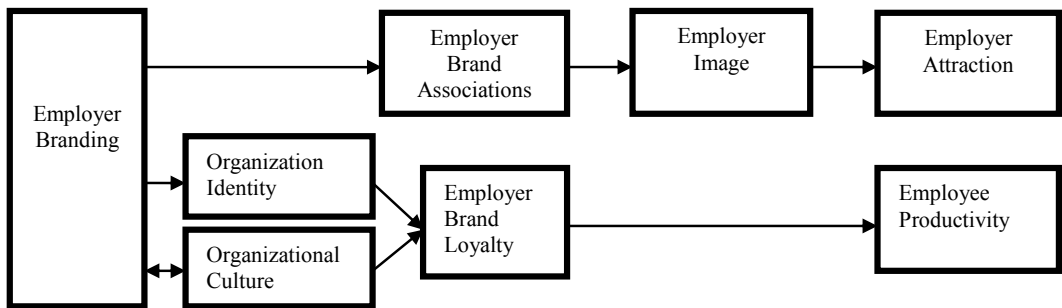
<sup>7</sup> Sullivan J., *Eight elements of a successful employment brand*, “ER Daily”, 23 February 2004, available at: [www.erexchange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp](http://www.erexchange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp) (accessed 14.09.2016).

To the importance of employees as addressees of marketing activities of companies, was pointed – among others – at the works of W. George and C. Grönroos<sup>8</sup>. They argues that the organisation’s personnel are the first market of any company. L. Berry and A. Parasuraman writes that job products must attract, develop and motivate employees, thereby satisfying the needs and wants of these internal customers, while addressing the overall objectives of the organization<sup>9</sup>. However it is a mistake to refer of employer branding only to the employment. The aim of the undertaken actions should be to obtain the status of “employer of choice”, which in practice means the possibility of hiring the best employees. Meanwhile, the lack of a good image among employees can cause that instead of strengthening marketing activities of companies, they can undermining the credibility of the information provided by employers. Coca-Cola’s renowned former chief marketing officer, Sergio Zyman concurs: “Before you can even think of selling your brand to consumers, you have to sell it to your employees.”<sup>10</sup>

### Employer branding activities undertaken

While creation of employer brand we should influence into two groups: 1) currently employed and 2) potential employees. According to K. Backhaus and S. Tikko it is done in two ways. The main factor affecting the already employed is the organizational identity and organizational culture. The employer deliberately forming its identity in the area of so-called workplace, forming a long-term relationships with employees, thus affecting the employees’ loyalty to the company. With regard to potential employees are more important factors such as the associations connected with employer brand and employer brand image. They ultimately form the perceived attractiveness of the employer<sup>11</sup> (Figure 1).

Figure 1. Employer branding framework



Source: Backhaus K., Tikoo S., *Conceptualizing and researching employer branding School of Business*, “Career Development International”, Vol. 9 Iss: 5, pp.501 – 517.

Differentiation impact on both the target group is also highlighted in the G. Martin’s model, for which the essence of employer branding is to attract talented people to the organization and to ensure

<sup>8</sup> George W.R., Gronroos, C. *Developing customer conscious employees at every level – internal marketing*. /In:/ *Handbook of Marketing for the Services Industries*, Congram, C.A., Friedman, M.L. (eds), AMACOM, New York 1989, pp. 85-100; George W.R., *Internal marketing and organizational behavior: a partnership in developing customer-conscious employees at every level*, “Journal of Business Research”, 1990, No. 20, pp. 63–70.

<sup>9</sup> Berry L.L., Parasuraman A., *Marketing Services. Competing Through Quality*. The Free Press, New York 1991.

<sup>10</sup> Zyman S., *The End of Advertising As We Know It*. Hoboken, John Wiley & Sons, Inc., New York 2002, p. 204.

<sup>11</sup> Backhaus K., Tikoo S., *Conceptualizing and researching employer branding*, op. cit, pp. 501-517.

that both existing and potential employees will identify with the company (its brand and mission) and provide the desired performance for employer.<sup>12</sup>

Necessity of impact on the two groups of recipients excludes the validity of using these same tools in relation to current and potential employees. The company after determining the employee value proposition (EVP), which should communicate what the organization has to offer to employees through the use of available means of communication, directs the message to the outside (marketing external) in order to attract desirable employees and inside (internal marketing) – in order to consolidate the image of the organization among existing staff<sup>13</sup>. The actions proposed in the framework of employer branding is shown in Table 1.

Table 1. Employer branding activities

	<b>Employer branding activities directed to potential employees</b>	<b>Employer branding activities directed to current employees</b>
<b>Employer branding activities</b>	Social media Career websites Online job boards Employee video testimonials On campus activities (incl. ambassador program) Graduate programs Internship programs Induction process Employee referral program (ERP) Mobile career site Sponsorship Alumni events External newsletter Mobile app Newspapers job ads Career fair Trade shows Open days	Training and development programs Internal newsletter (e.g. staff e-news) Company brochures Company events Performance appraisal Surveys of employee Good communication on the line: manager – employee Information boards Meeting with management board The program of additional facilities such as medical care, facilities for young mothers, etc.

Source: Own study based on literature

Employers are increasingly using non-standard methods to attract and retain employees, increasing the list of facilities for those already employed.

<sup>12</sup> See: Martin G., *Employer branding – time for some long and 'hard' reflections? /In:/ Employer branding. The latest fad or the future of HR?*, Research Insight, Chartered Institute of Personnel and Development, London 2008, p. 18-19. Available at: <http://www2.cipd.co.uk/NR/rdonlyres/56C8377F-256B-4556-8650-8408B0E07576/0/empbrandlatfad.pdf>. (accessed 14.09.2016).

<sup>13</sup> See: Backhaus K., Tikoo S., *Conceptualizing and researching employer branding*, op. cit., pp. 502-503.

## Data and research methodology

Empirical studies were conducted in 2011-2013 on a sample of 800 consumers in form a survey research. The research was conducted in the Silesia and Malopolska provinces. Given the subject of the research used a convenient choice. After rejecting of invalid responses, the basis for the calculation were: 502 questionnaires. The sample characteristic is presented in Table 2.

Table2: The sample characteristic [%]

<b>Sex</b>	<b>Female</b>		<b>Male</b>		
	57,4		41,2		
<b>Age</b>	To 25 years	From 26 to 35 years	From 36 to 45 years	From 46 to 55 years	Over. 56 years
	49,0	17,3	12,2	12,2	9,4
<b>Education</b>	Primary/Middle school	Vocational school	High school education	A university degree	
	2,4	9,8	53,6	32,7	
<b>Place of residence</b>	City of over 100 thousand. residents	City from 25 to 100 thousand. residents	City to 25 thousand. residents	Village	
	14,5	20,3	22,7	42,4	
<b>Monthly net income per family member</b>	To 500 zlotys	From 500 to 1500 zlotys	From 1500 to 2500 zlotys	Over 2500 zlotys	
	8,8	51,6	25,7	10,6	
<b>Status</b>	Student	A working person	An unemployed person	Pensioner	
	45,2	45,2	9,4	7,6	

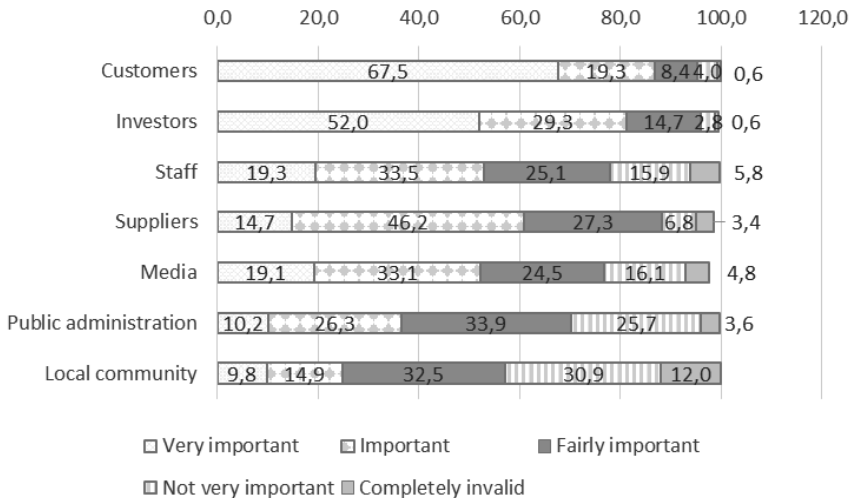
Source: Own study based on empirical research. N = 502.

## Evaluation of employer branding in the light of research

In the opinion of the surveyed the employees are not the most important group for companies. According to respondents, the most important group for companies are the customers – 68% of respondents believe that this group is very important for companies, and 19% – that at least important. On the second place are investors – according to 52% of surveyed think that this group is very important for companies and 29% believe that is important. Only 19% of respondents believe that employees are very important to businesses, 34% believe that it is important group, and 25% – that rather important. Such responses placed this group at the similar position as suppliers and the media (Figure 2)<sup>14</sup>.

<sup>14</sup> See: Howaniec H., *Postrzeżenie CSR w Polsce w kontekście zaangażowania przedsiębiorstw w poszczególne grupy interesariuszy. /In:/ Teoria i praktyka zarządzania w obliczu nowych wyzwań*, J. Kaczmarek, W. Szymła, eds. Fundacja Uniwersytetu Ekonomicznego, Cracow 2015, pp. 221-229.

Figure 2: The validity of the various stakeholders for the enterprise – employees' opinions [%]



Source: Own study based on empirical research

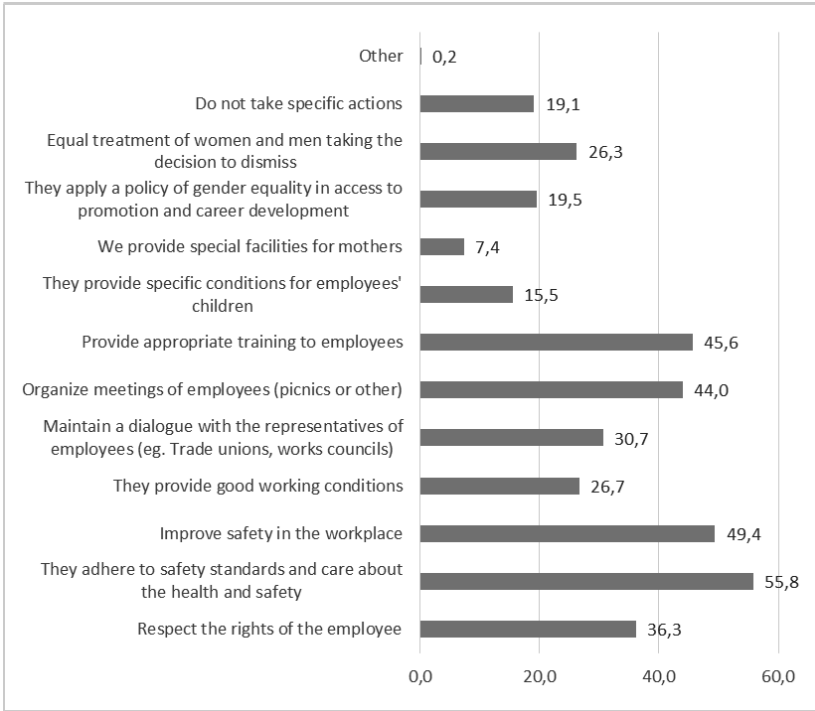
In assessing the proceedings of employers in practice, the respondents perceive first of all the compliance of employers with the rules occupational health and safety and care for the health and safety – 56% of respondents. Much of the surveyed believes that entrepreneurs improve safety in the workplace (49%). A considerable part of positively evaluates training programs for employees – 46% and organizing integration meetings – 44%. Only 36% of respondents believe that businesses respect the rights of the worker. Less than 31% believe that companies maintain a dialogue with the representatives of employees, e.g. labour unions. Only 27% of respondents believe that employers provide good working conditions. A similar number of respondents believe that employers are not guided by prejudices in relation to gender during deciding to dismiss. Unfortunately, much less believes that the policy of equality is applied in the planning and promotion of professional development – 20%. Very few people positively evaluates activities for children of employees – 16%, and even less – action taken against mothers – 7%. A relatively large group believes that entrepreneurs do not take special measures for employees – 19% (Figure 3).

Such responses do not confirm the high-care of companies operating in Poland about the image of a good employer. Concern for safety of workplace is not sufficient proof of concern for the employees. However, we can see an increased interest in test group of stakeholders (training programs, events).

Confronting it with the perception of the benefits, which according to the respondents providing CSR practices in the workplace, they believe that it is, among others, development of the image an attractive employer. The respondents assessed the probability of this benefit as very high – 28% of respondents, and large – 35%. Only 23 believes that it is the average, 14% – that small, and less than 1% – it is very small (Figure 4).

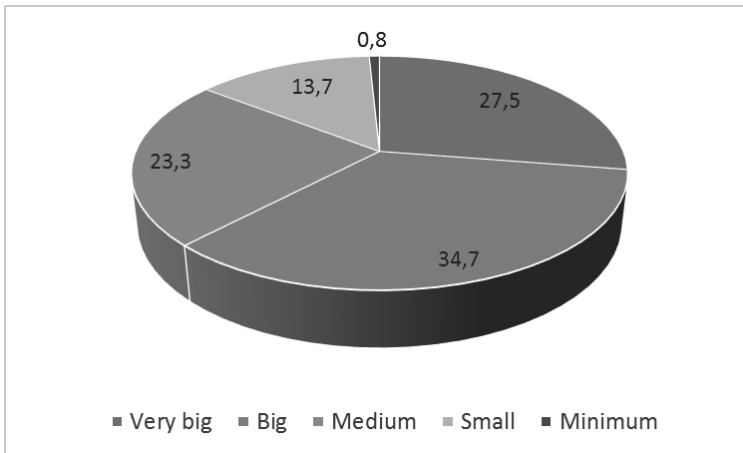
Responsible approach to employees is also reflected in an increase in satisfaction and employee engagement. At a very high probability of such benefits indicated 17% of respondents, 34% believe that it is high, 29% – the average of 19% considers them too small. At a very small possibility of occurrence of this advantages indicated only 2% found (Figure 5).

Figure 3: Evaluation of actions targeted to employees [%]



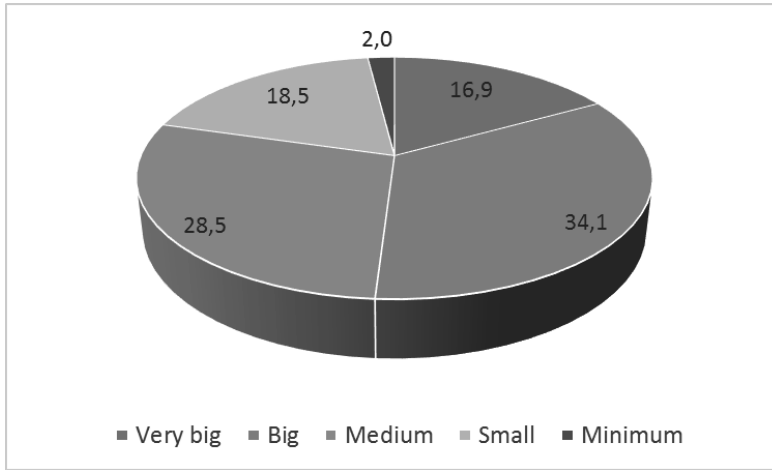
Source: Own study based on empirical research

Figure 4: Perception of the benefits: the image of an attractive employer [%]



Source: Own study based on empirical research

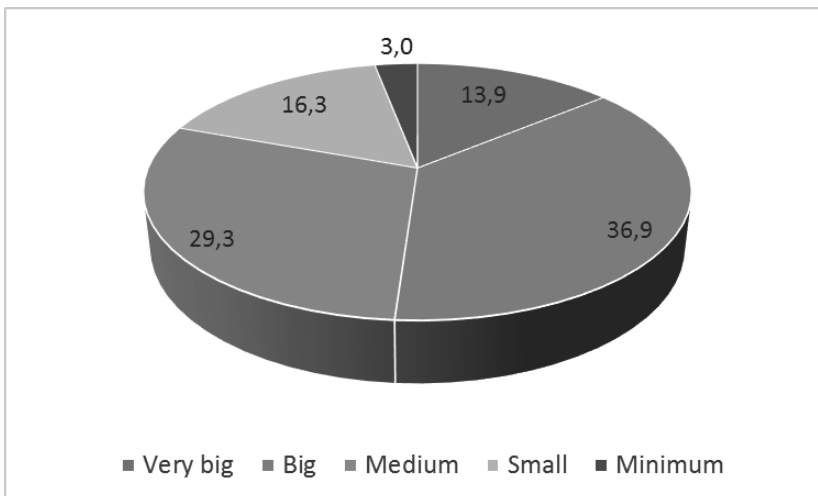
Figure 5: Perception of the benefits: increased customer satisfaction and employee engagement [%]



Source: Own study based on empirical research

Respondents also believe that the implementation of CSR helps in the process of recruitment and subsequent retention of employees in the company. At a very high possibility of its occurrence indicates only 14% of respondents, but as many as 37% defines it as large, and 29% – as average. Only 16% of respondents believe that the occurrence of this benefit is unlikely, and 3% – very small (Figure 6).

Figure 6: Perception of the benefits: increased ability to attract and retain workers [%]



Source: Own study based on empirical research



## Conclusion

The employer branding is not a new concept, but the changing conditions of business require competing for a good employee too. Enterprises should show high activity in the area of recruitment but also to have a well thought out action program aimed for current employees

The reality of what is taking place in Poland, still enforces the need for the highest standards. Employees do not feel important for employers, do not assess highly actions taken for them. There are, however, convinced that a responsible approach to personnel, manifested in activities which provide them with real value, can have a positive impact on the degree of fluctuation of personnel, involvement of staff and, consequently, on the image of the companies.

## Bibliography

1. Aaker D., *Managing Brand Equity. Capitalizing on the Value of a Brand Name*, The Free Press, New York 1991.
2. Ambler T., Barrow S., *The employer brand*, "Journal of Brand Management", 1996, Vol. 4.
3. Backhaus K., Tikoo S., *Conceptualizing and researching employer branding*, "Career Development International", 2004, Vol. 9 Iss: 5.
4. Berry L.L., Parasuraman A., *Marketing Services. Competing Through Quality*. The Free Press, New York 1991.
5. DeChernatony L., McDonald M., *Creating Powerful Brands*, Butterworth—Heinemann, Oxford 1998.
6. George W.R., Gronroos, C. *Developing customer conscious employees at every level – internal marketing*. /In:/ *Handbook of Marketing for the Services Industries*, Congram, C.A., Friedman, M.L. (eds), AMACOM, New York 1989.
7. George W.R., *Internal marketing and organizational behavior: a partnership in developing customer-conscious employees at every level*, "Journal of Business Research", 1990, No. 20.
8. Kotler Ph., Armstrong G., *Principles of Marketing*, Prentice Hall International, London 1989.
9. Lloyd S., *Branding from the inside out*, "BRW", 2002, Vol. 24, No. 10.
10. Howaniec H., *Postrzeganie CSR w Polsce w kontekście zaangażowania przedsiębiorstw w poszczególne grupy interesariuszy*. /In:/ *Teoria i praktyka zarządzania w obliczu nowych wyzwań*, J. Kaczmarek, W. Szymła, eds. Fundacja Uniwersytetu Ekonomicznego, Cracow 2015.
11. Martin G., *Employer branding – time for some long and 'hard' reflections?* /In:/ *Employer branding. The latest fad or the future of HR?*, Research Insight, Chartered Institute of Personnel and Development, London 2008. Available at: <http://www2.cipd.co.uk/NR/rdonlyres/56C8377F-256B-4556-8650-8408B0E07576/0/empbrandlatfad.pdf>.
12. Sullivan J., *Eight elements of a successful employment brand*, "ER Daily", 23 February 2004. Available at: [www.erechange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp](http://www.erechange.com/articles/db/52CB45FDADFAA4CD2BBC366659E26892A.asp).
13. Zyman S., *The End of Advertising As We Know It*. Hoboken, John Wiley & Sons, Inc., New York 2002, p. 204.



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# THE MANAGEMENT OF AGRITOURISM ORGANIZATION IN THE ASPECT OF RESTRUCTURING CHANGES

## *Summary*

*The article focuses on the issues connected with restructuring processes conducted in agritourism farms. The characteristics of the restructuring process and its definitions are presented on the basis of literature. Examples of restructuring changes in agritourism associations, also on the basis of literature, this time related to agritourism were presented, as well. In the empirical part of the article, the results of the survey were shown. The survey concerned the activity of three agritourism associations in the Lesser Poland Voivodeship.*

\* \* \*

## **Introduction**

The activities of each company are conditioned by many factors. One of them is the need to make changes that make it possible to grow better. These changes are often referred to restructuring processes, such as improving the quality of services, upgrading their standards, or introducing some innovation.

An important part of running a business is the right company strategy and the adequate techniques and management concepts. It is also important to skilfully manage the restructuring processes by choosing the accurate instruments for this purpose. The management of each organization and enterprise in the context of a variety of restructuring changes will contribute to their greater economic and financial condition, and thus increase their prestige.

Restructuring modifications are also a very important factor for the development of various organizations in the tourism sector. In the case of very popular agritourism in Poland, in its development, regional agritourism associations, which associate farmers with agritourism farms play an important role. These organizations make various changes, undergo restructuring processes to better and more effectively promote agritourism and create interesting offers of leisure.

The region known for the development of agritourism is the Lesser Poland Voivodeship. The article presents the results of direct interviews with the presidents of three agritourism associations, which were conducted in 2014. The interviews were designed to determine the restructuring of these organizations and strategic plans for the future.

## The essence of restructuring

Firms, regardless of its size and potential, branch, specialization, service companies, also trade and productive ones function in difficult competitive conditions. They have to run its activity based on proper marketing, management, improving the quality of the products, and services provided. It is important to broaden purchasers market, attract more consumers and constantly build its prestige on the market<sup>1</sup>. It is important to improve the company's offerings. This is the purpose of the company's restructuring of the introduced quantitative and qualitative changes, the introduction of innovation.

Restructuring means system redevelopment, modernization or updating of the organizational structure and rules of operation of enterprises and other economic research objects<sup>2</sup>. It, therefore, aims to improve the business and make changes. It is essential for a company to stay on the market and to respond to changes in its near and distant future<sup>3</sup>.

In the extensive literature on restructuring processes of enterprises, numerous definitions of restructuring can be found. Table 1 shows the selected ones.

Table 1: Definitions of restructuring according to chosen authors

Author	Definition
I. Duplik	'Restructuring is the most often determined as system restructuring, modernization or also as an adaptation to the modern level of technique and the development of organizational and managerial thought, structure and enterprise, firm, or institution. However, in polish terms, restructuring is associated with privatization and macroeconomic changes' <sup>4</sup>
A. Nalepka	'Restructuring of enterprise means the considered reorientation of enterprise purposes (mission) according to last or being able to occur in the future changes in the neighborhood and adaptation to it technique, organization, economics, and frames.' <sup>5</sup>
A. Pełka	'Restructuring of the enterprise are system changes in enterprises related to technique, technology, forms of production organization, management system, economics and market, and organizational-legal status of this enterprises.' <sup>6</sup>
A. Stabryła	'Restructuring is the diagnostics and design procedure, aiming at improving the management system and exploitative system of enterprise' <sup>7</sup>

Source: Own elaboration based on M. Mozalewski, *Rodzaje i metody restrukturyzacji przedsiębiorstw, /W:/ Ruch prawniczy, Ekonomiczny i Socjologiczny, ROK LXXII – zeszyt 2 – 2010, Wydawnictwo Wydziału Prawa i Administracji Uniwersytetu Ekonomicznego w Poznaniu, Poznań 2010, s. 216.*

The common denominator of several restructuring definitions in the table above is to make different changes in the company. Restructuring processes, however, are most often divided into two types: subject

<sup>1</sup> K. Szymczyk, *The impact of restructuring strategies on the functioning of the organization, /In:/ Contemporary Issues of Enterprise Management in Poland and Hungary*, Publisher, edited by Nowicka-Skowron Maria, Illes Csaba Balint, Tozser Janos, Szent Istvan University Publishing Hungary, p.98.

<sup>2</sup> Zarządzanie restrukturyzacją przedsiębiorstw i gospodarki, Red. Naukowa: R. Borowiecki, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014, s. 17.

<sup>3</sup> A. Brzozowska, K. Szymczyk, *Management Through Opportunities as an Unconventional Solution in the Theory of Strategic Management, /In:/ Shaping the Future of ICT. Trends in Information Technology, Communications Engineering, and Management*, edited by: El Amary Ibrahim M.M., Brzozowska Anna, CRC Press Taylor & Francis Group, p. 377.

<sup>4</sup> I. Durlik, *Restrukturyzacja procesów gospodarczych, Reengineering. Teoria i Praktyka*, Placet, Warszawa 1998, s. 45.

<sup>5</sup> A. Nalepka, *Zarys problematyki restrukturyzacji przedsiębiorstw*, Antykwa, Kraków 1998, s. 21.

<sup>6</sup> B. Pełka, *Restrukturyzacja przedsiębiorstwa przemysłowego*, Instytut Organizacji i Zarządzania w Przemysle „Orgmasz”, Warszawa 1994, s. 7.

<sup>7</sup> A. Stabryła, *Zarządzanie rozwojem firmy*, Księgarnia Akademicka, Kraków 1995, s. 16.

and subjective characters.<sup>8</sup> The subject restructuring concerns the introduction of changes in the company aimed at improving the functioning its technical and technological sphere, what is connected with the following changes: proprietary, financial, employment, technical and technological.<sup>9</sup> Restructuring of a subjective nature, in turn, aims to introduce in the company certain systemic changes in the legal, organizational and financial-economic areas. These changes often include changes in ownership, legal, organizational, decision systems and management systems.<sup>10</sup>

## The role of agritourism associations in the development of agritourism

The activity of agritourism associations are of a social nature and play an important role in supporting and popularizing agritourism. These entities cooperate with local authorities, agricultural advisory centres and district and regional branches of the Agency for Restructuring and Modernization of Agriculture. Such cooperation in agritourism is often seen in the joint organization of agritourism training and for farmers and trips to agritourism fairs.

The formation of regional agritourism associations in Poland began in the early nineties of the last century. In 1998, there were 33 such organizations registered in the country, 5 years later there were already 90 associations, whereas in 2003 there were already 122.<sup>11</sup>

Among the most important tasks of the agritourism associations there should be mentioned<sup>12</sup>:

- advisory and training activities related to current directions of agritourism associations' activity and improvement of profitability of agritourism enterprises,
- preparation of uniform criteria for qualitative assessment and standards of qualitative classification of services (including categorization of objects) and maintenance of standards,
- study of the tourist market in rural areas, meeting the expectations of tourists and analyzing the agritourism market,
- creating offers for different groups of tourists, identifying the best market segment, introducing innovations and expanding the agritourism package,
- clarification and description of leisure offers in agritourism farms,
- setting up a reservation system and arranging the sale of an agritourism product with the unification of pricing policy,
- marketing of agritourism services, especially promotion,
- cooperation with local governments and government to develop a strategy for the development of regional and local agritourism,
- acquisition funds for the implementation of the strategy, especially for tourist and local infrastructure.

Agritourism associations are the second, out of community council important entity supporting the development of agritourism services. Association is the organization, which can function in order to develop the agritourism farms. It is brought into being to realize the statutory goals appointed by its founders and to be financed from its means. To statutory goals include: informing about environmental and cultural values of any territory, study, publishing and distributing maps, brochures, and guides.<sup>13</sup>

<sup>8</sup> B. Pelka, op. cit., s. 7.

<sup>9</sup> M. Garstka, *Restrukturyzacja przedsiębiorstwa podział przez wydzielenie*, Cedewu, Warszawa 2006, s. 19.

<sup>10</sup> M. Mozalewski, *Rodzaje i metody restrukturyzacji przedsiębiorstw*, /W:/ *Ruch prawniczy, Ekonomiczny*

<sup>11</sup> *Socjologiczny*, ROK LXXII – zeszyt 2 – 2010, Wydawnictwo Wydziału Prawa i Administracji Uniwersytetu Ekonomicznego w Poznaniu, Poznań 2010, s. 216.

<sup>12</sup> I. Sierakowska-Wollak, *Instytucjonalne czynniki rozwoju agroturystyki*, /W:/ *Agroturystyka – moda czy potrzeba?* Red. naukowa: G. Ciepiela, J. Sosnowski, Wydawnictwo Akademii Podlaskiej, Siedlce 2007, s. 425.

<sup>13</sup> *Agroturystyka i usługi towarzyszące*, red. naukowa: J. Kania, L. Leśniak, W. Musiał, Małopolskie Stowarzyszenie Doradztwa Rolniczego, Kraków 2005, s. 115–116.

<sup>14</sup> M. Sznajder, L. Przezbórska, *Agroturystyka*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2006, s. 136.

Agritourism associations manage the development of agritourism by conducting appropriate marketing policy. It mainly concerns the promotion of tourist offers by farmers belonging to associations. Techniques and conceptions of agritourism farms management relate to various types of management. Among the most important of them there are: marketing management, quality management, strategic management, tourists' leisure time management and recreation management. In agritourism, restructuring is also important.

In the activities of agritourism associations, its restructuring policy is very significant. These organizations should implement modern management methods. An important aspect of its activity is the improvement of marketing, especially promotion, which may contribute to the increased interest of tourists in agritourism farms.

In the literature, one may notice various possible actions of restructuring agritourism associations. For example, J. Sikora points out the possibility of establishing associations of associations, combining them into systems that could create appropriate agritourism development programs.<sup>14</sup> In addition, the mentioned author writes about the possibility of active involvement of these organizations in the development of agritourism development strategies in the municipality or association of municipalities.<sup>15</sup> A. Bott-Alama also points to the creation of a strong alliance of rural tourism associations and agritourism along with benefits that the Polish Federation of Rural Tourism "Hospitable Farms" would give them.<sup>16</sup>

Especially rural communes in the process of agritourism management should support the establishment of agritourism associations in its area.<sup>17</sup> Communes would also be able to support initiatives aiming at the establishment of a circle, or branch of such organizations within its territory. The following projects could contribute to the promotion of agritourism services in the region. In reference to this statement, it is necessary to agree with B. Lane and J. Majewski that local authorities would be able to play an important role in the management of agritourism development through the participation of members of the municipal council in tourism organizations and thus in agritourism associations.<sup>18</sup>

For other restructuring activities undertaken by associations, one should certainly include improving marketing activities and improving the quality of services provided by its members. Properly packaged recreation services in agritourism farms affiliated to these organizations may be an attractive offer for tourists. Examples of restructuring activities of agritourism farms, on the example of the status of any association from the Lublin Voivodeship, is presented by J. Zawadka. These activities concern<sup>19</sup>:

- promotional activities and publishing,
- organization of training, meetings, and conferences,
- increasing the quality of rural tourism offers,
- cooperation with self-government authorities.

The restructuring changes in associations activity are also connected with an introduction and control of the standards of the quality of agritourism farms, market surveys, advisory in the range of shaping prices and maintaining regional and folk tradition.<sup>20</sup>

Regional agritourism associations in Poland play a very important role in the development of agritourism. These organizations associate farmers engaged in agritourism and support its activity, mainly in the promotion. It is seen among others in organizing trips for its members to tourism fairs

<sup>14</sup> J. Sikora, *Agroturystyka. Przedsiębiorczość na obszarach wiejskich*, Wydawnictwo C. H. Beck, Warszawa 2012, s. 193.

<sup>15</sup> Ibidem.

<sup>16</sup> A. Bott-Alama, *Uwarunkowania rozwoju turystyki wiejskiej w województwie zachodniopomorskim*, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2005, s. 121.

<sup>17</sup> *Agroturystyka. Materiały szkoleniowe*, Red. naukowa: K. Herbst, Ministerstwo Gospodarki, Departament Turystyki, Warszawa 2002, s. 101.

<sup>18</sup> B. Lane, J. Majewski, *Turystyka wiejska i rozwój lokalny*, Fundacja Fundusz Współpracy, Poznań 2001, s. 283.

<sup>19</sup> J. Zawadka, *Ekonomiczno-społeczne determinanty rozwoju agroturystyki na Lubelszczyźnie (na przykładzie wybranych gmin wiejskich)*, Wydawnictwo SGGW, Warszawa 2010, s. 112.

<sup>20</sup> M. Koniusz, *Miejsce i rola stowarzyszeń agroturystycznych w rozwoju agroturystyki, /W:/ Turystyczne funkcje obszarów wiejskich*, Red. naukowej: I. Sikorska-Wollka, Wydawnictwo SGGW, Warszawa 2009.

and publishing offers of leisure in agritourism farms. Associations organize or co-organize training and courses for its members to improve their offers, and also for farmers who plan to establish their own agritourism farms.

In order to confirm the fact of the benefits resulting from the membership of agritourism associations, the results of the survey conducted in 2005 by M. Karczewska and J. Sikora with 67 farmers associated with these organizations in the Greater Poland Voivodeship.<sup>21</sup> The respondents were asked to answer the questions connected to benefits of memberships in associations. They had a choice of more than one answer. More than half of the respondents (57,4%) in their answers pointed out the availability of information facilitating the activity of agritourism. 39,3% respondents indicated that they had been consulted, and every third of the respondents (32,8%) indicated a well-organized promotion of services.

Similar surveys were conducted by A. Niedziółka in 2006 with the owners of 184 agritourism farms associated in agritourism associations in the Lesser Poland Voivodeship. It turned out, that 86% respondents pointed out the promotional activity as the most important benefit of their membership in the association. Every fourth respondent indicated training as the greatest benefit of membership in these organizations (table 2).

Table 2: Opinions of farmers running agritourism farms on benefits of membership in agritourism farms

Kind of answer	Number of answers	
	Total	%
Promotion	159	86
Courses	45	24
Access to information	35	19
Shared trips to tourist fairs	34	16
Exchange of experiences	14	7
Opportunity to promote the region	1	0,5
Broadening knowledge about agritourism	1	0,5
Common events	1	0,5
Trips to other agritourism farms	1	0,5
No benefits	8	4,3

Source: A. Niedziółka, *Działalność stowarzyszeń agroturystycznych jako ważna determinanta rozwoju agroturystyki w województwie małopolskim* /W:/ Folia Universitatis Agriculturae Stetinensis 263. Oeconomica 51, Red. naukowa: W. Gusakow i in., Wydawnictwo Naukowe Akademii Rolniczej w Szczecinie, Szczecin 2008, s. 77.

At times, however, the activities of agritourism associations encounter various difficulties and problems. According to J. Wojciechowska, such associations are often characterized by spontaneity and they rather lack of long-term programs, as well as, they indicate the deficiency of intentionally

<sup>21</sup> Karczewska M., Sikora J., *Działalność lokalnych stowarzyszeń agroturystycznych w opinii kwaterodawców* /W:/ *Turystyka wiejska a rozwój i współpraca regionów*, red. naukowa: Z. Kryński, E. Kmita-Dziasek, Wydawnictwo Państwowej Wyższej Szkoły Zawodowej w Krośnie, Krosno 2005, s. 199.

developed strategies for other entities.<sup>22</sup> The author adds, that Polish associations almost do not search for constant advisers, as they do in Austria.<sup>23</sup>

## **Restructuring processes of agritourism associations on the example of Małopolska organizations – results of research**

The Lesser Poland Voivodeship (Małopolska) is one of the most developed regions of Poland in terms of agritourism development. The rural areas of Małopolska are characterized by attractive landscape values, valuable natural and protected areas in the form of national and landscape parks, nature reserves and other forms of nature conservation. The region has forest complexes in the Tatra Mountains and other mountains: Gorce, Pieniny, the Low Beskid, the High Beskid, on the Krakow–Czestochowa Upland. It also contains lakes, rivers, numerous hiking, biking and horse trails. The development of agritourism services is also affected by the fact, that the vast majority of farms in the Lesser Poland Voivodeship are small, inefficient and very fragmented in the farm production. Therefore, agritourism for many farmers is a source of additional or alternative income.

An important factor in the development of agritourism in Małopolska is the activity of agritourism associations. Mainly farmers associate for renting guest-rooms for tourists, those who run agritourism farms. Sometimes these associations include other entities related to rural tourism, such as guesthouses.

The most important agritourism associations from the Lesser Poland Voivodeship, at the same time belonging to the Polish Federation of Rural Tourism “Hospitable Farms” are:

- Galician Hospitable Farms,
- Association of Tourism and Agritourism of Mountain Areas,
- Mountain Agritourism Associations.

A questionnaire survey was conducted in the form of a direct interview with the presidents of the above associations in the summer of 2014. The research was aimed at identifying the key objectives of these organizations and the restructuring processes they have implemented in the past. In addition, they dealt with the definition of strategic plans of associations for the future as well as its restructuring.

Galician Hospitable Farm was founded in 1993 and is the largest agritourism association in the Lesser Poland Voivodeship. Based on interviews with its president, it can be stated, that it associates 221 agritourism farms, including 92 categorized. The Association has 21 regional branches in several districts of the Lesser Poland Voivodeship. In 2009, the Mountain Agritourism Association, a group of agritourism farms from the Podhale region, emerged.

In the organization’s restructuring processes an important activity was completed in 2008 the project financed by the Lesser Poland Voivodeship entitled: “Improving the quality of agritourism services in Małopolska”. During its implementation, 31 agritourism farms in Nowy Targ District and 36 in Nowosądecki District were categorized. Other restructuring measures concerned the systematic improvement of promotional activities. One of them was the edition in 2003 Agritourism Newsletter of the Małopolska Region. The respondent added, that the Newsletter contained 304 offers of agritourism farms. During this period, 40 (13%) of all agritourism farms had a category. The Newsletter also includes the offers of 28 regional branches of the Galician Hospitable Farms, while in 2014 the number of them, as previously indicated, decreased to 21. Another promotional tool used by the association is the co-organization of the Małopolska Agritourism Fair each year. As part of its activities, the organization also runs courses and agritourism training for its members to improve the quality of its services. Such projects are also carried out for farmers interested in establishing an agritourism farm in the future.

<sup>22</sup> J. Wojciechowska, *Procesy i uwarunkowania rozwoju agroturystyki w Polsce*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2009, s. 98.

<sup>23</sup> Ibidem.



The president also said that all regional branches carry a strong promotional activity. They have its own websites with agritourism offers and with a brief description of the region in which its members operate. A description of the natural and cultural tourism values of these areas and the form of tourism possible to cultivate in this area, included, as well.

For the question about the future plans which association have and about forms of its restructuring, the respondent pointed out:

- the need to further promote the entire region of the association’s activities and its individual regional branches,
- implementation of agritourism development strategies in terms of quality of services rendered,
- further cooperation
- further cooperation with local authorities and agricultural advisory centres in the development of agritourism.

The second agritourism association, which the president was interviewed, is the Association of Tourism and Agritourism of the Mountain Areas. It was established in 1998 by 20 people, including 10 farmers who were then engaged in agritourism. In 2014 the association had 89 members, including 80 farmers with agritourism farms. The other members of the association are guest-houses.

The restructuring of the association’s activities concerned the improvement of various promotional activities of agritourism. Internet advertising was improved, publishing activities were expanded and various forms of public relations were used, including annual trips to the already mentioned Małopolska Agritourism Fair.

In the process of restructuring of agritourism associations, agritourism courses play an important role. Therefore, the question was asked whether such projects had been organized so far. It turned out, that in the past they were organized for members of the association as well as for farmers thinking about setting up agritourism farm. Both pieces of training were co-organized with the Małopolska Chamber of Agriculture, the Agricultural Advisory Centre and the Polish Federation of Rural Tourism “Hospitable Farms”.

Restructuring in the future of the organization in the opinion of its president will concern:

- increased promotion through the use of various communication tools for the market,
- building a new website,
- the issue of a new agritourism newsletter of the association, including, among others, a list of ecological and thematic farms,
- organization of agritourism courses,
- further cooperation with local authorities and agricultural advisory centres.

The third agritourism association, which the president was interviewed, is the Mountain Agritourism Association. Its establishment in 2009 has already been mentioned by the President of the Galician Hospitable Farms.

The Association currently includes 74 members who conduct tourism activities and agritourism in the area of two districts: Nowy Targ and Tatra. The activity of the Mountain Agritourism Association is very attractive in terms of natural values of Małopolska. These areas among others include Pieniny, Podhale, Gorce, Spisz, Orava.

For several years of its activity, the restructuring processes of the association were related to:

- improving the quality of services provided by the members of the association (most of them have a current category according to criteria set by the Polish Federation of Rural Tourism “Hospitable Farms”),
- business consulting (training, courses, shows, individual consultancy),
- protection of the natural and cultural heritage,
- supporting the development of local communities through cooperation with local action groups,
- action for European integration (cooperation with border regions on the Slovak side).

The president said that the Mountain Agritourism Association has 7 regional branches, mainly from the area of Nowy Targ. He added, that it cooperated with local authorities at the municipal, county and Voivodeship levels. These local governments are the partners of the association in many projects carried out on its premises. One of them was a project entitled “Development and publication of an agritourism catalogue promoting the tourist values of the region affected of the activity of Local Group Activity Spisz and its Neighbourhoods and Neighbourhoods “. It was completed in 2011-2012 and it was completed with the publication of a catalogue with agritourism offers of members of the Mountain Agritourism Association. The president said, that the catalogue included:

- information about tourist attractions of the communes covered by the Mountain Agritourism Association,
- information on the natural values of the region from which the members of the association come,
- a list of farms of the Mountain Agritourism Association, which declared participation in the catalogue with the contact details and the short characteristics of the objects.

Agritourism courses can be included in the association’s restructuring process for the members of the association to improve the quality of services. In addition, the restructuring of the organization was related to promotional activities. The respondent stated that the services of its members were promoted through:

- Internet advertising on the official website,
- trips to agritourism and tourism fairs and markets,
- publishing activities,
- various forms of public relations, e.g. participation in symposia and conferences.

In the restructuring plans for the future, the president sees the need to use EU funds from the Rural Development Program 2014-2020. In addition, he intends to reorganize agritourism training for his members. He believes that such actions will increase the standard

## **Conclusion**

The restructuring of the enterprise management process is an important determinant of its economic development. They concern the changes in the functioning of the company aimed at improving its business.

Agritourism associations play an important role in the development of agritourism in Poland. Its restructuring processes are very important. They are contributing to a more effective marketing policy of the associations, more effective promotion and better cooperation with various organizations in the development of agritourism services.

Based on the questionnaire survey in the form of a direct interview with the presidents of three agritourism associations from the Małopolska Poland Voivodeship concerning the restructuring of these associations, it should be stated that:

- in the past, research organizations have improved various promotional tools to promote their members’ offerings,
- organized agritourism training,
- operated by various entities in the development of agritourism, especially in promotional activities,
- have increased the quality of the services provided by its members.

The restructuring plans for the future also include improving various forms of promotion, an organization of agritourism training and further cooperation with various organizations.

## Bibliography

1. *Agroturystyka i usługi towarzyszące*, red. naukowa: J. Kania, L. Leśniak, W. Musiał, Małopolskie Stowarzyszenie Doradztwa Rolniczego, Kraków 2005, s. 115–116.
2. *Agroturystyka. Materiały szkoleniowe*, Red. naukowy: K. Herbst, Ministerstwo Gospodarki, Departament Turystyki, Warszawa 2002, s. 101.
3. Bott-Alama A., *Uwarunkowania rozwoju turystyki wiejskiej w województwie zachodniopomorskim*, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2005, s. 121.
4. Brzozowska A., Szymczyk K., *Management Through Opportunities as an Unconventional Solution in the Theory of Strategic Management*, [In:] *Shaping the Future of ICT. Trends in Information Technology, Communications Engineering, and Management*, edited by: El Amary Ibrahim M.M., Brzozowska Anna, CRC Press Taylor & Francis Group, p. 377.
5. Durlik I., *Restrukturyzacja procesów gospodarczych, Reengineering. Teoria i praktyka*, Placet, Warszawa 1998, s. 45.
6. Garstka M., *Restrukturyzacja przedsiębiorstwa podział przez wydzielenie*, Cedewu, Warszawa 2006, s. 19.
7. Karczewska M., Sikora J., *Działalność lokalnych stowarzyszeń agroturystycznych w opinii kwaterodawców*, [w:] *Turystyka wiejska a rozwój i współpraca regionów*, red. naukowa: Z. Kryński, E. Kmita-Dziasek, Wydawnictwo Państwowej Wyższej Szkoły Zawodowej w Krośnie, Krosno 2005, s. 199.
8. Koniusz M., *Miejsce i rola stowarzyszeń agroturystycznych w rozwoju agroturystyki*, [w:] *Turystyczne funkcje obszarów wiejskich*, red. naukowa: I. Sikorska-Wollak, Wydawnictwo SGGW, Warszawa 2009.
9. Lane B., Majewski J., *Turystyka wiejska i rozwój lokalny, Fundacja Fundusz Współpracy*, Poznań 2001, s. 283.
10. Mozalewski M., *Rodzaje i metody restrukturyzacji przedsiębiorstw*, [w:] *Ruch prawniczy, Ekonomiczny i Socjologiczny*, ROK LXXII – zeszyt 2 – 2010, Wydawnictwo Wydziału Prawa i Administracji Uniwersytetu Ekonomicznego w Poznaniu, Poznań 2010, s. 216.
11. Nalepka A., *Zarys problematyki restrukturyzacji przedsiębiorstw*, Antykwa, Kraków 1998, s. 21.
12. Niedziółka A., *Działalność stowarzyszeń agroturystycznych jako ważna determinanta rozwoju agroturystyki w województwie małopolskim*, [w:] *Folia Universitatis Agriculturae Stetinensis* 263. *Oeconomica* 51, red. naukowa: W. Gusakov i in., Wydawnictwo Naukowe Akademii Rolniczej w Szczecinie, Szczecin 2008, s. 77.
13. Pełka B., *Restrukturyzacja przedsiębiorstwa przemysłowego*, Instytut Organizacji i Zarządzania w Przemysłu „Orgmasz”, Warszawa 1994, s. 7.
14. Sierakowska-Wollak I., *Instytucjonalne czynniki rozwoju agroturystyki*, [w:] *Agroturystyka – moda czy potrzeba?*, red. naukowy: G. Ciepiera, J. Sosnowski, Wydawnictwo Akademii Podlaskiej, Siedlce 2007, s. 425.
15. Sikora J., *Agroturystyka. Przedsiębiorczość na obszarach wiejskich*, Wydawnictwo C. H. Beck, Warszawa 2012, s. 193.
16. Stabryła A., *Zarządzanie rozwojem firmy*, Księgarnia Akademicka, Kraków 1995, s. 16.
17. Sznajder M., Przezbórska L., *Agroturystyka*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2006, s. 136.
18. Szymczyk K., *The impact of restructuring strategies on the functioning of the organization*, [In:] *Contemporary Issues of Enterprise Management in Poland and Hungary*, Publisher, edited by Nowicka-Skowron Maria, Illes Csaba Balint, Tozser Janos, Szent Istvan University Publishing Hungary.

19. Wojciechowska J., *Procesy i uwarunkowania rozwoju agroturystyki w Polsce*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2009, s. 98.
20. *Zarządzanie restrukturyzacją przedsiębiorstw i gospodarki*, Red. naukowy: R. Borowiecki, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014, s. 17.
21. Zawadka J., *Ekonomiczno-społeczne determinanty rozwoju agroturystyki na Lubelszczyźnie (na przykładzie wybranych gmin wiejskich)*, Wydawnictwo SGGW, Warszawa 2010, s. 112.

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# REASONS FOR TAKING-UP NON-AGRICULTURAL ACTIVITIES AND FACTORS DETERMINING THE SELECTION OF THE INDUSTRY IN THE OPINION OF ENTREPRENEURS OWNING SMALL FARMS<sup>1</sup>

## *Summary*

*The aim of the study is to present the results of the research carried out among smallholder farmers who have taken on a path of diversification of their income sources by concurrently carrying out agricultural and non-agricultural activities. The research sought answers to the question as to what motivations farmers are guided by when initiating non-agricultural activities and what determines the choice of a particular sector of the activity. The empirical evidence was based on the results of our own surveys conducted in 2015. The research has shown that farmers demonstrate a very pragmatic approach to non-agricultural activities, and are primarily driven by positive motivations. Among the factors considered to be decisive when choosing the sector were, predominantly, the opportunity of using farm facilities and farmers' own assessments relating to the environment and the level of development of the sector in the region, as well as the demand for particular products or services.*

\* \* \*

## **Introduction**

Recent years have seen a significant increase in the interest of scientific, economic and political communities in small farms, which is due to their widespread presence in the agricultural structures of numerous countries and regions, and the significant economic and non-economic role which they play.<sup>2</sup>

<sup>1</sup> Publication financed by funds granted to the Management Faculty of Cracow University of Economics under the scheme for subsidising university research potential.

<sup>2</sup> Fairtrade International, *Powering up smallholder farmers to make food fair: A five point agenda*, A Fairtrade International Report, May 2013, s. 13; *Smallholders, food security, and the environment*, International Fund for Agricultural

Estimates show that there are over 570 million farms worldwide, of which over 475 million are farms with less than 2 hectares.<sup>3</sup> According to the 2013 data, there were 10.8 million farms in the European Union. Of these, 7.0 million are farms with less than 5 hectares, of which 4.7 million are farms with the area of less than 2 hectares. In absolute terms, the largest number of small farms in the EU are present in the new Member States (primarily in Romania and Poland), but it is also characteristic for the southern states of UE-15 (Italy, Greece, Spain)<sup>4</sup>.

Small farms are a real and functional segment of European agriculture, which co-exists with other more market-oriented agricultural models. It should be noted that the functions of these farms differ depending on the country, region, or a small spatial unit. In Romania, for example, they constitute the basis of agriculture and, moreover, the basic buffer protecting the population against poverty. In Germany, there are few of them and they are rather perceived as a place for recreation and rest, and less often – as a source for obtaining agricultural products<sup>5</sup>. In Poland, their situation is spatially varied due to different socio-economic conditions in particular regions<sup>6</sup>. However, they are often criticized for their relatively low economic viability and poor participation in the implementation of economic, social or environmental tasks.<sup>7</sup> Empirical studies have shown that, in the conditions of market economy, most of them do not participate in food chains, even at the local level, and are little associated with the national food production system<sup>8</sup>. Still, apart from agricultural income, owners of small farms often have non-agricultural or non-profit sources of income, which, unlike in the case of large farms, makes them more resistant to different economic stimuli and less susceptible to the ever-increasing fluctuations in agricultural markets. Also, their dependence on political changes or unstable and generally unfavorable agricultural policies is small<sup>9</sup>. All this makes small farms very durable, as evidenced by the slow pace of their decline. Therefore, undoubtedly, in many regions of Poland and Europe, they will constitute a large group of farms with considerable resources of land, labor and production assets for a long time to come.

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Development, Rome 2013, s. 6; European Commission, *EU Agricultural Economic Briefs: What is a small farm?*, Brief No. 2, Brussels, July 2011, s. 1; J.S. Zegar, *Rol drobnego gospodarstwa rolnego w procesie społecznie zrównoważonego rozwoju obszarów wiejskich*, „Problemy Drobnego Gospodarstwa Rolnych”, 2012, Nr 1, s. 129-148; A. Czudec, *Ekonomiczne, środowiskowe i społeczne funkcje drobnego gospodarstwa rolnego*, „Więsi Rolnictwo”, 2013, Nr 2, s. 90-105.

<sup>3</sup> S.K. Lowder, J. Scoet, T. Raney, *The Number, Sizes and Distribution of Farms, Smallholder Farms and Family Farms Worldwide*, World Development, 2016, Vol. 87, s. 27.

<sup>4</sup> EUROSTAT, *Small and large farms in the EU – statistics from the farm structure survey*, [http://ec.europa.eu/eurostat/statistics-explained/index.php/Small\\_and\\_large\\_farms\\_in\\_the\\_EU\\_-\\_statistics\\_from\\_the\\_farm\\_structure\\_survey](http://ec.europa.eu/eurostat/statistics-explained/index.php/Small_and_large_farms_in_the_EU_-_statistics_from_the_farm_structure_survey) [dostęp 10.09.2017]

<sup>5</sup> Z. Sawicka, *Strategia rozwoju gospodarstw dwuzawodowych w regionie Bawarii – studium przypadku*, „Więsi Rolnictwo”, 2013, Nr 2, s. 106–123.

<sup>6</sup> B. Górz, R. Uliaszak, *Teraźniejszość i przyszłość małych gospodarstw*, „Rozwój Regionalny i Polityka Regionalna”, 2014, Nr 26, s. 65.

<sup>7</sup> A. Czudec, op. cit., s. 90–105; M. Halamska, *Quasi-chłopi w przestrzeni społecznej polskiej wsi*, „Więsi Rolnictwo”, 2013, Nr 2, s. 28–42; D. Żmija, *Wpływ wspólnej polityki rolnej Unii Europejskiej na funkcjonowanie małych gospodarstw rolnych w Polsce*, Difin, Warszawa 2016, s. 107-112.

<sup>8</sup> B. Górz, R. Uliaszak, op. cit., s. 69.

<sup>9</sup> W. Musiał, M. Drygas, *Dylematy procesy limitacji drobnego gospodarstwa rolnego*, „Więsi Rolnictwo”, 2013, nr 2, s. 57-73; D. Żmija, K. Żmija, *Sustainable Development in the Functioning of Small Agricultural Holdings* [in:] Hradec Economic Days : Double-blind Peer Reviewed Proceedings of the International Scientific Conference Hradec Economic Days 2017, ed. P. Jedlička, P. Marešová, I. Soukal, The University of Hradec Králové, Hradec Králové 2017, s. 973-979; T. Wojewodziec, *Dywersyfikacja produkcyjna i zasobowa w gospodarstwach rolniczych prowadzonych przez przedsiębiorców*, Roczniki Naukowe SERiA, 2011, XIII, Z. 1, s. 532-535.

## Small farms – definition dilemmas and prospects for their functioning in Poland

Both in modern literature and in economic practice, farms are classified based on different criteria of their delimitation, and so, the notion of a small farm is not clearly defined<sup>10</sup>. Even the initial review of the criteria for distinguishing small farms points to their conventional and universal nature, which is mainly due to a large diversification of farms between and within individual countries<sup>11</sup>. Traditional measures which allow us to categorize farms are the indicators based on the measurement of production factors: land, labor or capital<sup>12</sup>. Other popular criteria include: farm size, added value, purpose of production or the farmer's source of sustainment. A review of the criteria and their classification make it clear that the definition of a small farm usually refers to a farmer with a small area of land with a limited amount of resources, mainly producing for his own needs, and, consequently, earning low income from his farm<sup>13</sup>.

Many attempts have been made in the European Union to define a small farm but there are huge differences between the Member States and the agricultural production sectors, and different definitions vary due to the needs for which they have been created. The definitions of a small farm are based, among others, on the number of persons working on a farm based on the AWU (Annual Work Unit) or on the area criterion, i.e. on the number of hectares of agricultural land (UAA–Utilised Agricultural Area)<sup>14</sup>. Using the AWU criterion for the delimitation of small farms, the thresholds expressing the maximum AWU on the farm (e.g. on the level of 0.5, 1 or 2 AWU) are used<sup>15</sup>. Considering the area of agricultural land, it is most often assumed that small farms are those with less than 2, or less than 5 hectares of UAA<sup>16</sup>. However, the use of the criterion of the area to distinguish small farms is not perfect, primarily due to the enormous diversity of farms in individual countries<sup>17</sup>.

Another criterion used in the EU for the delimitation of small farms is the economic size of the farm, which can be expressed by different measures, such as the value of production, net value added or income gained from the farm. In practice, the use of these categories causes a number of difficulties due to the barriers in obtaining source materials and, often, their low credibility. Consequently, simplified categories are usually used in order to determine the economic size of a farm in the EU. Until 2009, the European Unit of Measurement (ESU) was used; it expressed the economic size of the farm calculated on the basis of Standard Direct Surplus (1 ESU = 1200 EUR), and since 2010, the economic value has been expressed as the value of Standard Output (SO) in the euro monetary unit. The minimum upper

<sup>10</sup> J.S. Zegar, *Współczesne wyzwania rolnictwa*, Wydawnictwo Naukowe PWN, Warszawa 2012, s. 106; European Commission, op. cit., s. 6.

<sup>11</sup> J.S. Zegar, *Rola drobnych gospodarstw...*, op. cit., s. 135.

<sup>12</sup> W. Ziętara, *Miary wielkości gospodarstw i przedsiębiorstw rolniczych*, Roczniki Nauk Rolniczych, Seria G, 2009, T. 96, Z. 4, s. 267-273.

<sup>13</sup> See more: S. Narayanan, A. Gulati, *Globalization and the smallholders: a review of issues, approaches, and implications*. Markets and Structural Studies Division Discussion Paper No. 50. Washington, D.C.: International Food Policy Research Institute, 2002, s. 5; A.H. Sarris, T. Doucha, E. Mathijs, *Agricultural restructuring in Central and Eastern Europe: implications for competitiveness and rural development*, „European Review of Agricultural Economics”, 1999, 26 (3), s. 305-329.

<sup>14</sup> AWU is a conventional unit of agricultural labor, representing a full-time equivalent, calculated as the quotient of the number of hours worked in a year by the annual number of hours equal to the full-time equivalent.

<sup>15</sup> European Commission, op. cit., s. 6.

<sup>16</sup> EUROSTAT, *Small and large farms in the EU – statistics from the farm structure survey*, [http://ec.europa.eu/eurostat/statistics-explained/index.php/Small\\_and\\_large\\_farms\\_in\\_the\\_EU\\_-\\_statistics\\_from\\_the\\_farm\\_structure\\_survey](http://ec.europa.eu/eurostat/statistics-explained/index.php/Small_and_large_farms_in_the_EU_-_statistics_from_the_farm_structure_survey) [dostęp 10.09.2017]

<sup>17</sup> W. Ziętara, op. cit., s. 269; W. Musiał, M. Drygas, op.cit., s.58.

limits of the standard production, which qualifies farms as non-commercial (small) farms, vary from country to country, and their amount is within the range of 2 to 25 thousand euro<sup>18</sup>.

In Poland, the area and the economic size of the farm are the criteria which are most commonly used. The maximum thresholds which allow us to classify a farm as small are usually set at the level of 5 hectares of agricultural land (AL) and 4 thousand euro of standard production. The adoption of such limits corresponds, in part, to the categorization of farms which is used in the European Union<sup>19</sup>.

In the discussion on the current state and prospects of the functioning of small farms, various positions are presented, including for the farms operating in our country. Due to the large heterogeneity of this group, one can identify four key scenarios of changes which are going to take place in this group. Undoubtedly, some owners of small farms will focus on developing their farms by increasing their area, specializing and/or intensifying production, modernizing the farm or establishing cooperation with other agricultural producers. This path will lead to the gradual transformation of some small, semi-subsistence farms into commercial entities, linked to the market. In other small farms, agricultural activity will continue, however, it will be to a limited extent, with the simultaneous acquisition of other sources of income, for example, from wage labor or non-agricultural business activities of the farmer or his family members. Therefore, the income from agricultural activity will be not the only, but rather, frequently, it will be just an additional source of income for the farmer and his family. The third group will be farms which will continue to carry out agricultural activity in the current form due to the fact that it will remain the only source of sustenance for the owner and his family. In the case of farms with diversified agricultural production, especially those with crops whose production is not profitable in a small area, this will be tantamount to continued functioning of these farms often at or below the profitability threshold, which will result in the liquidation of the farm. The last scenario of the changes is discontinuation of agricultural production by some small farms and their final liquidation, which will be caused by the obtainment of sources of income outside agriculture, or the retirement or disability of their current owners with the simultaneous absence of a successor to the farm. This situation will involve setting aside the land or transferring it to other farms or destining it for other, non-agricultural purposes<sup>20</sup>.

## The aim and the methodology of the research

The aim of the study is to present the results of the research carried out among persons who own small farms and pursue the path of the diversification of their income sources by concurrently conducting agricultural and non-agricultural activities. The research sought answers to the question as to what motives, farmers are guided by when initiating non-agricultural activities and what factors influence the choice of a particular sector of this activity. The results of our own surveys, carried out in 2015, served as the empirical evidence. The research covered farmers from the Małopolskie Voivodeship who own farms with an area of 1 to 5 ha of agricultural land, and run agricultural and non-agricultural businesses simultaneously. The research was conducted in several stages. In the first stage, the study covered a group of randomly selected 301 farmers. In the next step, 80 farmers conducting non-agricultural business, were identified in the group; they were qualified for further stages of the research. The respondents were from 41 communes (gminas), located in the area of 14 poviats of the Małopolskie Voivodeship, characterized by a varying level of development of their business.

<sup>18</sup> Commission Regulation (EC) No 1291/2009 of 18 December 2008 concerning the selection of returning holdings for the purpose of determining incomes of agricultural holdings, Official Journal of the European Union L 347/14, s. 2.

<sup>19</sup> W. Dzun, *Drobne gospodarstwa w rolnictwie polskim. Próba definicji i charakterystyki*, „Wies i Rolnictwo”, 2013, nr 2, s. 13; W. Musiał, M. Drygas, op. cit., s. 63.

<sup>20</sup> D. Żmija, op. cit., s. 154-156; R. Grochowska, *Polish experience from the transformation period and the EU membership, future, challenges and strategies for small farm holders*, [http://www.fao.org/fileadmin/user\\_upload/reu/europe/documents/Events2015/fcss/pol\\_en.pdf](http://www.fao.org/fileadmin/user_upload/reu/europe/documents/Events2015/fcss/pol_en.pdf), [20.09.2017]; B. Górz, R. Uliszak, op. cit., s. 69-70.



## The results of the research

The respondents participating in the study were farmers who own an area of more than 1 to 5 ha of agricultural land, and carry out both agricultural and non-agricultural activities. Men dominated in the group examined (84%). The most represented group were people aged over 30 to 40 (40% of the total number of respondents) and, the next group, over 40 to 50 (37.5%). Respondents had relatively high education – 73.7% of the respondents had secondary or higher education, while only 26.3% had vocational education. At the same time, 55.0% of the respondents had agricultural education. More than half of the respondents (almost 59%) were owners of farms with an area of more than 4 hectares of AL. One fifth of the respondents owned farms with an area of more than 3 to 4 hectares of agricultural land, 11.0% – more than 2 to 3 hectares, and 10% of the respondents used areas of up to 2 hectares.

At the time of the study, the vast majority of the respondents (91.2%) had micro-enterprises which fulfilled the criteria of the Freedom of Business Act of July 2, 2004. The remaining respondents (8.8%) were running unregistered business (agro-tourism). The time of running non-agricultural activity was different for different farmers; however, for 81.2% of the respondents, it was longer than 2 years. The vast majority of respondents (78.8%) launched their activity in 2004 and in the subsequent years. The activity predominantly had the form of self-employment – as many as 52.5% of the respondents did not employ workers for the purposes of their activity. Another 30% of the respondents employed 1 worker, while 17.5% of the respondents – at least 2 employees. In the group subjected to analysis, the non-agricultural activity was mostly local (42.5%) or regional (41.3%) in nature. Only 16.2% of the respondents indicated the area of the whole country as their market.

With regard to the notion of entrepreneurship, many definitions and related conceptions can be indicated<sup>21</sup>. One of the aspects which can be considered in relation to entrepreneurial activity is the motivation of the entrepreneur. From this point of view, two main types of entrepreneurship can be distinguished, namely: opportunistic entrepreneurship and forced entrepreneurship. At the root of opportunistic entrepreneurship lie positive motivations for setting up and running one's own business, stemming also from a desire to achieve self-actualization and face new challenges. Forced entrepreneurship is motivated by negative reasons, mainly related to the need to raise funds for sustainment, and it is usually the solution in the absence of other possibilities of providing means of subsistence<sup>22</sup>.

The answers obtained indicate that the decision to start non-agricultural activity was primarily motivated by positive motivations: the desire to improve the financial situation, despite obtaining sufficient income from agricultural activity (61.25%), the desire to use the observed market opportunity (25.0%), use farm resources more efficiently (20.0%), or follow positive examples of other farmers – entrepreneurs from the neighborhood (8.8%). Individual persons indicated their desire to verify their ability to run the business effectively or to provide jobs for family members. The respondents' responses indicate that starting a business wasn't in the least motivated by the desire to invest in the operation of additional financial surpluses from agricultural activities, which could also be regarded as positive motivation. Also, farmers weren't guided by the need for personal development.

Less than one in three respondents stated that the reasons for starting non-agricultural business were negative, in particular, low farm income and a lack of financial means to support the family. Some respondents expressed their desire to leave work on the farm on a permanent basis, which was, in almost all cases, connected with low income from agriculture. The respondents' responses indicate that starting a business was in no way forced by the situation of being unable to find wage employment, so it was rather a positive motivation to maintain independence, and a desire to work for oneself.

<sup>21</sup> B. Siuta-Tokarska, *Zasadnicze aspekty pomiaru przedsiębiorczości*, „Organizacja i Kierowanie”, 2013, Nr 3, s. 91.

<sup>22</sup> J. Duraj, M. Papiernik-Wojdera, *Przedsiębiorczość i innowacyjność*, Difin, Warszawa 2010, s. 46.

It should be emphasized that financial reasons connected with the desire to obtain additional source of income, alternative to agricultural activity, were indicated by the majority of the respondents as the main reason for undertaking additional non-agricultural activities. Financial incentives drove both the farmers who obtained satisfactory income and those who obtained low income from agricultural activity. The financial reasons were indicated as the only ones for starting a business by as much as 48.75% of the farmers surveyed. In the case of other persons, these reasons were also accompanied by other motives.

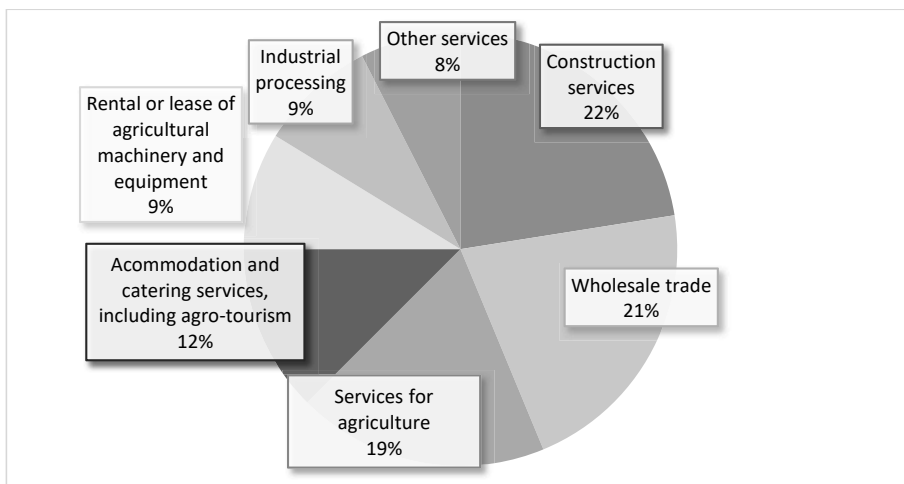
Table 1. Reasons for starting a business

<b>Reasons for starting non-agricultural business activity</b>	<b>Number of responses [N=80]</b>	<b>% of answers</b>
the desire to secure an alternative source of income despite sufficient income from agricultural activities	49	61,25
low income from the farm and a lack of financial means to support the family	23	28,75
spotting interesting opportunities on the market and making an attempt to use them	20	25,0
the desire to make better use of the farm resources (land, labor, material and financial capital)	16	20,0
positive examples of farmers and other people in the neighborhood who develop non-agricultural business	7	8,75
the desire to completely leave work in agriculture (farm)	5	6,25
the need to verify one's own ability to run a business	3	3,75
the opportunity to create jobs for family members	1	1,25
high income from the farm and a desire to invest in additional activities	0	0,0
no opportunity for employment as a wage worker in a different company	0	0,0
the need for personal development	0	0,0

Source: own study based on the research

In the course of the research, the sectoral structure of the business carried out by the farmers surveyed was analyzed. It was found that the sectoral structure of the activity isn't diverse. Most frequently, the respondents performed service activity (67.5%), significantly less often – commercial activity (21.3%) or production activity (11.2%). Among the more frequently occurring types of activity were various construction services, services for agriculture, mainly supporting plant production, wholesale of agricultural products, agro-tourism, rental and lease of agricultural machinery and equipment (Figure 1). In individual cases, the production activity was carried out in the field of the production of furniture, metal products or food processing, or various service activities.

Figure 1. The sectoral structure of non-agricultural activity of respondents



Source: own study based on the research

The study made an attempt to answer the question as to what factors influenced the choice of a particular sector (Table 2). The study has shown that the use of farm resources (the supply base) for non-agricultural activity was of paramount importance, which was indicated by more than 62% of the farmers surveyed. These were mainly people engaged in activities related to agriculture, i.e. services supporting agriculture, wholesale trade of agricultural products, agro-tourism or rental/lease of agricultural machinery and equipment.

Table 2. Factors determining the choice of the sector

Factors determining the choice of the sector	Number of responses [N=80]	% of answers
opportunity to use the resources (the supply base) of the farm	50,0	62,5
it is a branch that is developing well in my region	27,0	33,8
access to the absorbent sales market	21,0	26,3
favorable conditions for the development of this type of activity in the region (e.g. natural, infrastructural, availability of raw materials etc.)	20,0	25,0
having a good education or experience in the sector	18,0	22,5
no need for specialized knowledge or qualifications	15,0	18,8
the opportunity of processing raw materials coming from one's own farm	10,0	12,5
Low capital barrier (activity which doesn't require a large capital to start the business)	3,0	3,8
other reasons	2,0	2,5

Source: own study based on the research

The farmers' views on (assessment of) the prospects of the sector in the region and a demand for products manufactured or services provided were the next significant factors which were taken into account during the sector selection process (33.8% and 26.3% of answers, respectively). These factors were most often indicated by owners of construction companies and wholesalers of agricultural products. For one quarter of respondents, the existence of favorable conditions for the development of such activities (e.g. natural, infrastructural, availability of raw materials, etc.) in the region was important. Slightly fewer respondents indicated the factor related to having good education or experience in the sector. At the same time, however, some of the respondents undertook activities in the sector due to the fact that it did not require specialist knowledge and qualifications; this fact was pointed out primarily by entrepreneurs engaged in activities related to agriculture. Only slightly more than 12% of respondents considered the ability to process raw materials coming from their own farms as significant. It is worth noting that the choice of the sector was rarely determined by financial reasons, related, for example, to low financial barriers to entering the sector.

## Conclusion

The presented results of the study on the reasons for undertaking additional non-agricultural activities by farmers who own small farms, and the factors determining the choice of the sector, indicate farmers' very pragmatic attitude to this activity. Farmers are mainly guided by positive motivations, and so, they can be considered as opportunistic entrepreneurs, which does not change the fact that they are primarily driven by financial gain. Non-agricultural activity is most often an expression of a search for opportunities to increase the current income, use emerging opportunities in the market, or making more efficient use of the resources available on the farm. Only in the case of slightly more than a quarter of the respondents was additional activity forced by negative factors related to the need to raise funds to support the family due to low income from agricultural activities. The fact that starting up one's own business wasn't an answer to the lack of alternative employment outside of agriculture for any of the farmers, should be considered as a positive phenomenon.

The ability to use farm facilities was the most common factor determining the choice of the sector in which the business was conducted. Observations of the environment, the level of development of the sector in the region, and the demand for particular products or services were also of great importance in making the final decision. Hence, it is not surprising that the business activity was most often launched in traditionally well-developing sectors in rural areas. Financial barriers seemed to play a minor role, which was probably due to the fact that quite often, farmers undertook activities in the industry which did not require significant financial expenditures due to the fact that they possessed resources, previously used in agricultural activity, which proved useful in the new business.

## Bibliography

1. *Commission Regulation (EC) No 1291/2009 of 18 December 2008 concerning the selection of returning holdings for the purpose of determining incomes of agricultural holdings*, Official Journal of the European Union L 347/14
2. Czudec A., *Ekonomiczne, środowiskowe i społeczne funkcje drobnych gospodarstw rolnych*, „Wież i Rolnictwo”, 2013, Nr 2
3. Duraj J., Papiernik-Wojdera M., *Przedsiębiorczość i innowacyjność*, Difin, Warszawa 2010
4. Dzun W., *Drobne gospodarstwa w rolnictwie polskim. Próba definicji i charakterystyki*, „Wież i Rolnictwo”, 2013, nr 2
5. European Commission, *EU Agricultural Economic Briefs: What is a small farm?*, Brief No. 2, Brussels, July 2011

6. Eurostat, *Small and large farms in the EU – statistics from the farm structure survey*, [http://ec.europa.eu/eurostat/statisticsexplained/index.php/Small\\_and\\_large\\_farms\\_in\\_the\\_EU\\_-\\_statistics\\_from\\_the\\_farm\\_structure\\_survey](http://ec.europa.eu/eurostat/statisticsexplained/index.php/Small_and_large_farms_in_the_EU_-_statistics_from_the_farm_structure_survey) [dostęp 10.09.2017]
7. Fairtrade International, *Powering up smallholder farmers to make food fair: A five point agenda*, A Fairtrade International Report, May 2013
8. Górz B., Uliszak R., *Teraźniejszość i przyszłość małych gospodarstw*, „Rozwój Regionalny i Polityka Regionalna”, 2014, Nr 26
9. Grochowska R., *Polish experience from the transformation period and the EU membership, future, challenges and strategies for small farm holders*, [http://www.fao.org/fileadmin/user\\_upload/reu/europe/documents/Events 2015 /fcss/pol\\_en.pdf](http://www.fao.org/fileadmin/user_upload/reu/europe/documents/Events%202015/fcss/pol_en.pdf), [20.09.2017]
10. Halamska M., *Quasi-chłopi w przestrzeni społecznej polskiej wsi*, „Więś i Rolnictwo”, 2013, Nr 2
11. Lowder S.K., Scoet J., Raney T., *The Number, Sizes and Distribution of Farms, Smallholder Farms and Family Farms Worldwide*, “World Development”, 2016, Vol. 87
12. Musiał W., Drygas M., *Dylematy procesu delimitacji drobnych gospodarstw rolnych*, „Więś i Rolnictwo”, 2013, nr 2
13. Narayanan S., Gulati A., *Globalization and the smallholders: a review of issues, approaches, and implications*. Markets and Structural Studies Division Discussion Paper No. 50. Washington, D.C.: International Food Policy Research Institute, 2002
14. Sarris A.H., Doucha T., Mathijs E., *Agricultural restructuring in Central and Eastern Europe: implications for competitiveness and rural development*, “European Review of Agricultural Economics”, 1999, 26 (3)
15. Sawicka Z., *Strategia rozwoju gospodarstw dwuzawodowych w regionie Bawarii – studium przypadku*, „Więś i Rolnictwo”, 2013, Nr 2
16. Siuta-Tokarska B., *Zasadnicze aspekty pomiaru przedsiębiorczości*, „Organizacja i Kierowanie”, 2013, Nr 3
17. *Smallholders, food security, and the environment*, International Fund for Agricultural Development, Rome 2013
18. Wojewodziec T., *Dywestycje produkcyjne i zasobowe w gospodarstwach rolniczych prowadzonych przez przedsiębiorców*, Roczniki Naukowe SERiA, 2011, XIII, Z. 1
19. Zegar J.S., *Rola drobnych gospodarstw rolnych w procesie społecznie zrównoważonego rozwoju obszarów wiejskich*, „Problemy Drobnych Gospodarstw Rolnych”, 2012, Nr 1
20. Zegar J.S., *Współczesne wyzwania rolnictwa*, Wydawnictwo Naukowe PWN, Warszawa 2012
21. Ziętara W., *Miary wielkości gospodarstw i przedsiębiorstw rolniczych*, Roczniki Nauk Rolniczych, Seria G, 2009, T. 96, Z. 4
22. Żmija D., *Wpływ wspólnej polityki rolnej Unii Europejskiej na funkcjonowanie małych gospodarstw rolnych w Polsce*, Difin, Warszawa 2016
23. Żmija D., Żmija K., *Sustainable Development in the Functioning of Small Agricultural Holdings* [in:] Hradec Economic Days : Double-blind Peer Reviewed Proceedings of the International Scientific Conference Hradec Economic Days 2017, ed. P. Jedlička, P. Marešová, I. Soukal, The University of Hradec Králové, Hradec Králové 2017



## **PART III**



# **INNOVATION IN THE DEVELOPMENT PROCESS**





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# INNOVATION IN THE ACTIVITIES OF KNOWLEDGE-INTENSIVE ENTERPRISES

## *Summary*

*This publication covers the issues of innovation which should be a constant element in the activity of all companies, especially knowledge-intensive ones. Innovation is linked to changes in the environment and within the organization, as highlighted in this article. The barriers to innovation have also been shown. A fragment of the results of own research carried out in selected companies is presented.*

\* \* \*

## **Introduction**

Nowadays, it is important for businesses to look for new growth drivers, one of the most important of such being innovation<sup>1</sup>. Innovation is seen as one of the elements of the chain of action in businesses that provide them with business success<sup>2</sup>. The innovativeness of modern enterprises is shaped by the complexity of phenomena resulting from the functioning of these enterprises in a variable environment<sup>3</sup>. It is one of the key aspects influencing both development and business survival<sup>4</sup>. Moreover, it affects not

<sup>1</sup> A. Gwiazda, M. Bączkiewicz, *Determinanty innowacyjności w złożonym środowisku społecznym. /In:/ Innowacje w zarządzaniu i inżynierii produkcji. Tom I*, Ed.: R. Knosala, Wyd. Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole 2015, p. 59-68.

<sup>2</sup> B. Kaczmarska, *Ocena poziomu innowacyjności przedsiębiorstw na podstawie zasobów internetowych. /In:/ Innowacje w zarządzaniu i inżynierii produkcji*. Ed.: R. Knosala, Wyd. Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole 2013, p. 112-123.

<sup>3</sup> S. Motyka, P. Jarmuła, *Pomiar innowacyjności przedsiębiorstwa z wykorzystaniem środowiska MATLAB. /In:/ Innowacje w zarządzaniu i inżynierii produkcji. Tom I*, Ed.: R. Knosala, Wyd. Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole 2016, p. 166-177.

<sup>4</sup> Z. Malara, M. Hrydziuszko, P. Ziembicki, *Innowacyjne modele biznesowe szansą na rozwój przedsiębiorstw. /In:/ Zarządzanie wiedzą i innowacje w organizacji*, Ed. by: I. Dudzik-Lewicka, H. Howaniec, W. Waszkielewicz, Wydawnictwo Naukowe Akademii Techniczno-Humanistycznej, Bielsko-Biała 2015, p. 9-21.

only the competitiveness of enterprises but the national economy and its position on the international market<sup>5</sup>.

The aim of this publication is to present innovative aspects of business activities that are referred to as knowledge-based. Theoretical considerations in the former part of the publication, supported by the results of secondary research, were enriched with the results of own research presented in the latter part of the article.

## Innovation and its barriers in the enterprise

Enterprise innovation means introducing new organizational and management solutions as well as improving and developing information infrastructure and current production technologies<sup>6</sup>. Innovation can also be expressed in the use of improved solutions, instruments in the sphere of financial or human resources, and in the use of new ways of acting. In this regard innovation is not limited to the internal but also to its external organization environment<sup>7</sup>. Innovative companies are therefore defined as introducing new or improved products on the market or using new technological processes in production<sup>8</sup>. In this context, it is important to manage innovation, which is the process of shaping innovative competences that create opportunities for survival and development<sup>9</sup>. Enterprises should be able to manage innovation by demonstrating different skills and behaviors (Table 1), also with regard to the changes.

It should be noted here that Polish companies have a low level of innovation caused mostly by lack of funds for basic research and implementation of large development projects<sup>10</sup>. On the basis of conducted research, D. Lewicka pointed out that the barriers to innovation in Poland are<sup>11</sup>:

- non-development organizational structures and inadequate communication system,
- too much workplace stability and insufficient number of professional staff,
- insufficient degree of creative use of subordinates,
- the unfavorable relationship between enterprise management and innovation and entrepreneurship,
- lack of development strategy, financial resources and motivation resulting from inappropriate management style or rational rules of rewarding innovators.

<sup>5</sup> P. Kupis, K. Zaniewska, *Kierunki rozwoju polityki innowacyjnej w Polsce. /In:/ Innowacje w przedsiębiorstwie. Wybrane aspekty*, Ed. by: K. Poznańska, R. Sobiecki, Wyd. Oficyna Wydawnicza Szkoła Główna Handlowa, Warszawa 2012, p. 11-26.

<sup>6</sup> A. Maksimczuk, A. Świerczewska-Gąsiorowska, *Istota i znaczenie innowacji i innowacyjności. Aspekty ekonomiczne i prawne. /In:/ Sektor małych i średnich przedsiębiorstw krajów wschodniej Europy. Wybrane problemy. Tom I. Prawno-ekonomiczne aspekty innowacyjności oraz możliwości jej poprawy*, Ed. by: A. Maksimczuk, A. Świerczewska-Gąsiorowska, Wyd. Państwowa Wyższa Szkoła Zawodowa im. Prof. Edwarda F. Szczepanika, Suwałki 2016, p. 207-240.

<sup>7</sup> M. Brojak-Trzaskowska, *Spoleczno-kulturowe determinanty aktywności innowacyjnej przedsiębiorstw. /In:/ Tendencje innowacyjnego rozwoju polskich przedsiębiorstw*, Ed. by: E. Okoń-Horodyńska, A. Zacharowska-Mazurkiewicz, Wyd. Instytut Wiedzy i Innowacji, Warszawa 2008, p. 169-183.

<sup>8</sup> K. Szymonowicz, *Uwarunkowania strategiczne procesów innowacyjnych w przedsiębiorstwie. /In:/ Zeszyty Naukowe Akademii Górniczo-Hutniczej im. Stanisława Staszica. Zagadnienia techniczno-ekonomiczne. Zeszyt 2. Ekonomia*, Wyd. Uczelniane Wydawnictwa Naukowo-Dydaktyczne, Kraków 2003, p. 663-670.

<sup>9</sup> J. Kubicka, *Nowe wyzwania w zarządzaniu innowacjami. /In:/ Zarządzanie innowacjami a cykle gospodarcze. Wyzwania, relacje, metody*, Ed. by: S. Marciniak, W. Wiszniewski, E. Głodziński, Wyd. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2015, p. 46-61.

<sup>10</sup> A. Tuziak, *Innowacyjność w procesie budowania społeczeństwa uczącego się i gospodarki opartej na wiedzy. /In:/ Poszukiwanie tożsamości organizacyjnej w jednoczącej się Europie*, Ed. by: L. Zbiegień-Maciąg i D. Lewicka, Wyd. Uczelniane Wydawnictwa Naukowo-Dydaktyczne Akademia Górniczo-Hutnicza, Kraków 2003, p. 59-68.

<sup>11</sup> D. Lewicka, *Zarządzanie kapitałem ludzkim w polskich przedsiębiorstwach*, Wydawnictwo Profesjonalne PWN, Warszawa 2010, p. 255.

Table 1: Basic skills in innovation management

<i>Basic ability</i>	<i>Supporting behavior</i>
Recognition	Finding the technical and economic clues in the environment that could trigger the change
Proper gradation	Ensuring the right balance between the company's overall strategy and the suggested change
Acquiring	Transferring technology from different sources and integrating them into the right place in the company
generating	Ability to create technical solutions in the company by the R & D department, specialist groups, etc.
Choices	Analyzing and selecting the best solutions from the environment that will be in line with strategy, resources or external technological resources.
Completion	Managing development projects for new products or processes, including monitoring and controlling projects
Implementation	Managing the process of implementing changes to ensure its acceptance in the company and the efficient use of innovation
Learning	Ability to assess and analyze the innovation process, including errors to improve management procedures
Growing the business	Compliance with routine procedures – in organizational structures, processes, behaviors, etc.

Source: own based on: J. Tidd, J. Bessant, *Zarządzanie innowacjami. Integracja zmian technologicznych, rynkowych i organizacyjnych*, Wyd. Oficyna a Wolters Kluwer business, Warszawa 2013, p. 119.

The barrier of innovation, in addition to the lack of funds for testing new ideas and support from the management, also proves to be bureaucracy which is an obstacle to the implementation of innovative solutions due to the existence of rigid procedures. Another obstacle is the need to perform too many unnecessary activities that distract creative energy and short-sighted thinking as well as shortsightedness in functional thinking, meaning narrow perspective in evaluating the meaning and usefulness of the innovative solution<sup>12</sup>.

### **Changes in the company stimulated by innovation**

The continuing changes in various areas of business activity have their origins in innovation, which is the focus of many organizations, including knowledge-intensive organizations. They rely to a large extent on their activity on innovation. The ability to adapt to new conditions, flexibility in action, openness to change, and rapid information acquisition are the key skills preferred by organizations<sup>13</sup>. Every company that wants to function for many years must develop, and this development can not be understood by the prism of keeping up with change, but as a necessity to overtake these changes, and even to address the challenges of changing reality. Such development of the company must be stimulated by innovation<sup>14</sup>.

<sup>12</sup> M. Juchnowicz, *Pracownicy jako kapitał. /In:/ Zarządzanie kapitałem ludzkim. Procesy – narzędzia – aplikacje*, Ed.: M. Juchnowicz, Polskie Wydawnictwo Ekonomiczne, Warszawa 2014, p. 92-126.

<sup>13</sup> P. Woszczyk, M. Gawron, *Kształtowanie nowych nawyków*, „Personel i Zarządzanie”, 2014, nr 1, p. 50-54.

<sup>14</sup> J. Mazur, *Motywowanie i rozwój pracowników o wysokim potencjale. /In:/ Zarządzanie talentami*, Ed.: S. Borkowska, Wyd. Instytut Pracy i Spraw Socjalnych, Warszawa 2005, p. 106-110.

The conglomerate of the changes affects the functioning of the contemporary organization, which is consistently subject to radical, turbulent and not always anticipated changes<sup>15</sup>. The extent and pace of the changes taking place in the modern world include the social, political, economic and technological spheres<sup>16</sup>. As a result, changes in the organization's environment force changes in their functioning, and those who do not keep up with change have no chance of survival<sup>17</sup>. Companies therefore, aware of innovation-driven changes, should be focused on the continuous creation and implementation of change. It must be added, however, that the willingness and ideas to change the company may be insufficient<sup>18</sup>. It should be noted that changes are happening faster and faster<sup>19</sup>, so managers themselves should be innovative and create an innovative climate, a climate of change, so that all employees are interested in change<sup>20</sup>.

### Methodology of own research

Our own research was carried out in 2017 on twenty selected companies located in Poland. The selection of the research sample was conditioned by the following criteria characterizing the knowledge-intensive organizations:

- having the ability to adapt to change,
- acquisition of knowledge (its enrichment, application);
- ability to continuously learn and share knowledge,
- the ability to “transform” knowledge into innovation,
- perceiving the importance of employees in achieving organizational successes,
- using the experience of employees to create new knowledge / new practical solutions,
- Encouraging employees to take responsible risks when accepting their mistakes.
- Having a high level of innovation.

The survey involved companies employing up to 250 people, then over 250 to 1000, followed by companies employing more than 1000 to 5000, and even companies employing more than 5,000 people. The surveyed companies were active in a variety of industries and were different in the type of activity (production, sales, service or mixed activity) and their scope covered both domestic and international markets. The research tool was a questionnaire that contained both closed questions, optionally selected by respondents and open questions to give the respondent the opportunity to comment on a particular topic.

<sup>15</sup> T. Kawka, *Rola funkcji personalnej w kontekście zmieniającej się organizacji*. /In:/ *Człowiek i praca w zmieniającej się organizacji*. W kierunku respektowania interesów pracobiorców, Ed. by: M. Gableta, A. Pietroń-Pyszczyk, Prace Naukowe Uniwersytetu Ekonomicznego, nr 223, Wrocław 2011, p. 235.

<sup>16</sup> M. Wójcik, *Kreatywność personelu jako czynnik ograniczania błędów organizacji*. /In:/ *Zarządzanie wiedzą a procesy restrukturyzacji i rozwoju przedsiębiorstw*, Ed.: R. Borowiecki, Wyd. Akademia Ekonomiczna, Towarzystwo Naukowe Organizacji i Kierownictwa, Kraków 2000, p. 53-61.

<sup>17</sup> M. Lisiecki, *Psychospołeczna ocena zmian w organizacji*. /In:/ *Współczesne organizacje i regiony w procesie zmian globalnych*, Ed. by: M. Lisiecki, H. Ponikowski, Wyd. Katolicki Uniwersytet Lubelski, Lublin 2004, p.130-142.

<sup>18</sup> K. Zymonik, *Odpowiedzialność za produkt w zarządzaniu innowacyjnym przedsiębiorstwem*, Wyd. Difin, Warszawa 2015, p. 181.

<sup>19</sup> J. Skalik, *Problem dynamiki zmian w zarządzaniu współczesnymi organizacjami*. /In:/ *Zmiana warunkiem sukcesu. Dynamika zmian w organizacji – ewolucja czy rewolucja*. Prace naukowe AE we Wrocławiu, nr 1141, Ed.: J. Skalik, Wrocław 2006, p. 42-47.

<sup>20</sup> J. Penc, *Innowacje i zmiany w firmie. Transformacja i sterowanie rozwojem przedsiębiorstwa*, Wyd. Agencja Wydawnicza Placet, Warszawa 1999, p. 324.

## Innovative aspects of the activity of the surveyed enterprises

In the author's opinion the innovativeness of a company is determined by many factors inherent within the organization, among which research and development activity is vital. It is therefore interesting to examine whether the companies carry out research and development activities. The respondents were asked this question. The answers show that 40% of the surveyed companies conducted such activity and 60% did not.

Another question was dictated by the fact that the innovativeness of enterprises depends to a great extent on their personnel resources and personnel policy applied to employees. To the question: which of the policies of personnel policy apply to your organization? (21) respondents indicated the following responses:

- show respect to each employee (85%),
- equal opportunities for employees (75%),
- partnership relations in manager– subordinate relationships (75%),
- others (20%).

Another question was inspired by the fact that the innovations of companies are related to the changes taking place in them. So respondents were asked directly: Is within your organization a position that is occupied by a so-called “agent of change”? Based on the results of the research, it was observed that 20% of the respondents replied: yes, such a person is working for the organization, while 75% answered: no, because the company is working with external entities on the changes. 5% of respondents did not answer this question.

## Conclusion

Innovation is the key phenomenon in generating value in a company. At the same time it is closely related to human resources, which are the main value-creation<sup>21</sup>, and the creator of innovations.

It should be emphasized that innovation:

- occurs in knowledge-intensive organizations, where the focus is on the intellectualization of professional tasks, and the level of this innovation is varied,
- within a company's activity it is manifested through development, which is the domain of R & D departments, however most companies do not conduct research and development,
- is determined by various organizational, economic and social factors, including personnel policy,
- means to introduce internal changes.

## Bibliography

1. Brojak-Trzaskowska M., *Spoleczno-kulturowe determinanty aktywności innowacyjnej przedsiębiorstw. /In:/ Tendencje innowacyjnego rozwoju polskich przedsiębiorstw*, Ed. by: E. Okoń-Horodyńska, A. Zacharowska-Mazurkiewicz, Wyd. Instytut Wiedzy i Innowacji, Warszawa 2008.
2. Czyż M., *Wpływ jakości kapitału intelektualnego na innowacyjność przedsiębiorstwa. /In:/ Doskonalenie działania przedsiębiorstw i instytucji wobec przemian społeczno-gospodarczych. Innowacje – finanse – otoczenie biznesu*, Ed. by: J. Kaczmarek, P. Krzemiński, Wyd. Fundacja Uniwersytetu Ekonomicznego, Kraków 2017.

<sup>21</sup> M. Czyż, *Wpływ jakości kapitału intelektualnego na innowacyjność przedsiębiorstwa. /In:/ Doskonalenie działania przedsiębiorstw i instytucji wobec przemian społeczno-gospodarczych. Innowacje – finanse – otoczenie biznesu*, Ed. by: J. Kaczmarek, P. Krzemiński, Wyd. Fundacja Uniwersytetu Ekonomicznego, Kraków 2017, p. 29-40.

3. Gwiazda A., Bączkowicz M., *Determinanty innowacyjności w złożonym środowisku społecznym. /In:/ Innowacje w zarządzaniu i inżynierii produkcji. Tom I*, Ed. by: R. Konosala, Wyd. Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole 2015.
4. Juchnowicz M., *Pracownicy jako kapitał. /In:/ Zarządzanie kapitałem ludzkim. Procesy – narzędzia – aplikacje*, Ed. by: M. Juchnowicz, Polskie Wydawnictwo Ekonomiczne, Warszawa 2014.
5. Kaczmarek B., *Ocena poziomu innowacyjności przedsiębiorstw na podstawie zasobów internetowych. /In:/ Innowacje w zarządzaniu i inżynierii produkcji*. Ed. by: R. Konosala, Wyd. Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole 2013.
6. Kawka T., *Rola funkcji personalnej w kontekście zmieniającej się organizacji. /In:/ Człowiek i praca w zmieniającej się organizacji. W kierunku respektowania interesów pracobiorców*, Ed. by: M. Gableta, A. Pietroń-Pyszczyk, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 223, Wrocław 2011.
7. Kubicka J., *Nowe wyzwania w zarządzaniu innowacjami. /In:/ Zarządzanie innowacjami a cykl gospodarczy. Wyzwania, relacje, metody*. Ed. by: S. Marciniak, W. Wiszniewski, E. Głodziński, Wyd. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2015.
8. Kupis P., Zaniewska K., *Kierunki rozwoju polityki innowacyjnej w Polsce. /In:/ Innowacje w przedsiębiorstwie. Wybrane aspekty*, Ed. by: K. Poznańska, R. Sobiecki, Wyd. Oficyna Wydawnicza Szkoła Główna Handlowa, Warszawa 2012.
9. Lewicka D., *Zarządzanie kapitałem ludzkim w polskich przedsiębiorstwach*, Wyd. Profesjonalne PWN, Warszawa 2010.
10. Lisiecki M., *Psychospołeczna ocena zmian w organizacji. /In:/ Współczesne organizacje i regiony w procesie zmian globalnych*, Ed. by: M. Lisiecki, H. Ponikowski, Wyd. Katolicki Uniwersytet Lubelski, Lublin 2004.
11. Maksimczuk A., Świerczewska-Gąsiorowska A., *Istota i znaczenie innowacji i innowacyjności. Aspekty ekonomiczne i prawne. /In:/ Sektor małych i średnich przedsiębiorstw krajów wschodniej Europy. Wybrane problemy. Tom I. Prawno-ekonomiczne aspekty innowacyjności oraz możliwości jej poprawy*, Ed. by: A. Maksimczuk, A. Świerczewska-Gąsiorowska, Wyd. Państwowa Wyższa Szkoła Zawodowa im. Prof. Edwarda F. Szczepanika w Suwałkach, Suwałki 2016.
12. Malara Z., Hrydziuszko M., Ziembicki P., *Innowacyjne modele biznesowe szansą na rozwój przedsiębiorstw. /In:/ Zarządzanie wiedzą i innowacje w organizacji*, Ed. by: I. Dudzik-Lewicka, H. Howaniec, W. Waszkielewicz, Wydawnictwo Naukowe Akademii Techniczno-Humanistycznej w Bielsku Białej, Bielsko-Biała 2015.
13. Mazur J., *Motywowanie i rozwój pracowników o wysokim potencjale. /In:/ Zarządzanie talentami*, Ed. by: S. Borkowska, Wyd. Instytut Pracy i Spraw Socjalnych, Warszawa 2005.
14. Motyka S., Jarmuła P., *Pomiar innowacyjności przedsiębiorstwa z wykorzystaniem środowiska MATLAB. /In:/ Innowacje w zarządzaniu i inżynierii produkcji. Tom I*, Ed. by: R. Konosala, Wyd. Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole 2016.
15. Penc J., *Innowacje i zmiany w firmie. Transformacja i sterowanie rozwojem przedsiębiorstwa*, Wyd. Agencja Wydawnicza Placet, Warszawa 1999.
16. Skalik J., *Problem dynamiki zmian w zarządzaniu współczesnymi organizacjami. /In:/ Zmiana warunkiem sukcesu. Dynamika zmian w organizacji – ewolucja czy rewolucja. Prace naukowe AE we Wrocławiu, nr 1141*, Ed. by: J. Skalik, Wrocław 2006.
17. Szymonowicz K., *Uwarunkowania strategiczne procesów innowacyjnych w przedsiębiorstwie. /In:/ Zeszyty Naukowe Akademii Górniczo-Hutniczej im. Stanisława Staszica. Zagadnienia techniczno-ekonomiczne. Zeszyt 2. Ekonomia*, Wyd. Uczelniane Wydawnictwa Naukowo-Dydaktyczne, Kraków 2003.
18. Tidd J., Bessant J., *Zarządzanie innowacjami. Integracja zmian technologicznych, rynkowych i organizacyjnych*, Wyd. Oficyna a Wolters Kluwer business, Warszawa 2013.

19. Tuziak A., *Innowacyjność w procesie budowania społeczeństwa uczącego się i gospodarki opartej na wiedzy. /In:/ Poszukiwanie tożsamości organizacyjnej w jednoczącej się Europie*, Ed. by: L. Zbiegień-Maciąg i D. Lewicka, Wyd. Uczelniane Wydawnictwa Naukowo-Dydaktyczne Akademia Górniczo-Hutnicza, Kraków 2003.
20. Woszczyk P., Gawron M., *Kształtowanie nowych nawyków „Personel i Zarządzanie”*, Nr 1/2014.
21. Wójcik M., *Kreatywność personelu jako czynnik ograniczania błędów organizacji. /In:/ Zarządzanie wiedzą a procesy restrukturyzacji i rozwoju przedsiębiorstw*, Ed. by: R. Borowiecki, Wyd. Akademia Ekonomiczna w Krakowie, Towarzystwo Naukowe Organizacji i Kierownictwa, Kraków 2000.
22. Zymonik K., *Odpowiedzialność za produkt w zarządzaniu innowacyjnym przedsiębiorstwem*, Wyd. Difin, Warszawa 2015.





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# MODERN DEVELOPMENT STRATEGIES OF COMPANIES INSPIRED BY INNOVATIVE AND RESEARCH AND DEVELOPMENT DRIVEN ACTIVITIES

## *Summary*

*The paper touches upon some of the non obvious approaches to modern development strategies for companies. It concerns firms on every stage of development, from start-ups to well established international businesses and in any economic situation. It is one of the thesis of this paper that innovation based development, empowered by exponential technologies<sup>1</sup> is relevant both for new companies entering the market and large establishments in any condition, including firms in the restructuring process. Also the scope of business areas touched by innovation is considered to be very wide – starting from internal organization, thru product/services portfolio, to external and after-care activities, not excluding the business model itself.*

*The paper is based on well established Larry Kelly's "10 types of innovation"<sup>3</sup> concept developed on numerous companies case studies. Key focus is also given to present practical face of how the concept is being implemented by numerous businesses – series of case studies exemplifying wide scope of the "10 types" approach are presented.*

\* \* \*

<sup>1</sup> Deloitte, Industry 4.0. Challenges and solutions for the digital transformation and use of exponential technologies, 2015, <https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/manufacturing/ch-en-manufacturing-industry-4-0-24102014.pdf>(30.09.2017).

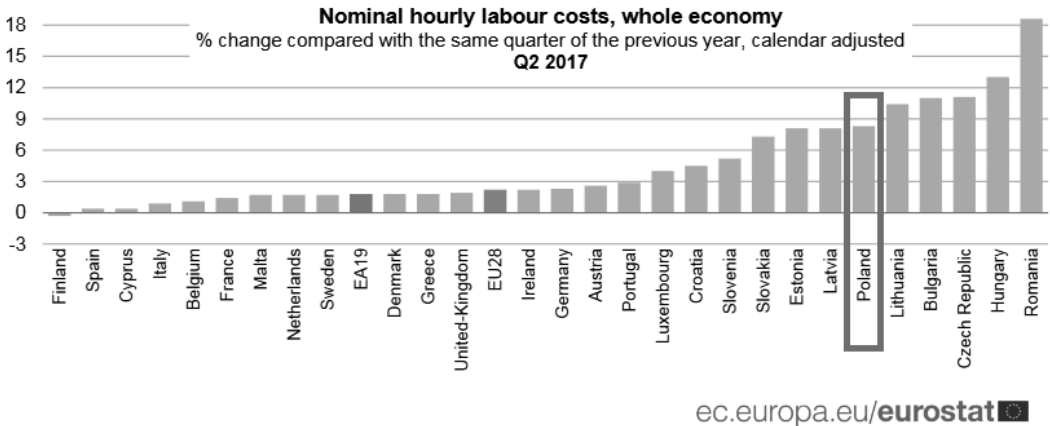
<sup>2</sup> Pigneur Y., Osterwalder A., *List otwarty do prezesów firm*, w: Harvard Business Review Polska, <https://www.hbrp.pl/b/list-otwarty-do-prezesow-firm/P15up4IYRI> (30.09.2017)

<sup>3</sup> Keeley L., *Ten types of innovation. The discipline of building breakthroughs*, Published by John Wiley&Sons, Inc., Hoboken, New Jersey, 2013.

## The Innovation

For many Central European companies the era of competing based on low labor cost and implementation of proven to be effective solutions has already ended or is about to end soon. According to Eurostat<sup>4</sup> labor costs are increasing in Central European countries in very high speed (see the graphics below).

Figure 1: Nominal hourly labour costs, whole economy



Source: ec.europa.eu/eurostat

Central European workers are significantly less productive than Western employees. This state of affairs is not only connected with low level of robotization of Central European economies<sup>5</sup> but also driven by not well developed culture of innovation and culture of failures<sup>6</sup>. All these factors lead the countries of the region to the middle-income-trap<sup>7</sup>.

Meanwhile the innovations we are observing making biggest changes in the world can be considered as a real opportunity for the region. Development based on innovation very often results in faster growth. This does not come without risks but well balanced, anticipated and managed risks can be an opportunity themselves. It comes from the practice that competitive advantages derived from innovations are harder to copy. It takes considerably more time to reengineer or redevelop new ideas for products or services based on innovations. Even though in quickly changing innovative environment no good can come in short-term from an active intellectual property policy, innovations can defend themselves on the market. Innovation makes it possible to raise labor productivity and increase salaries which works well both for owners and workers.

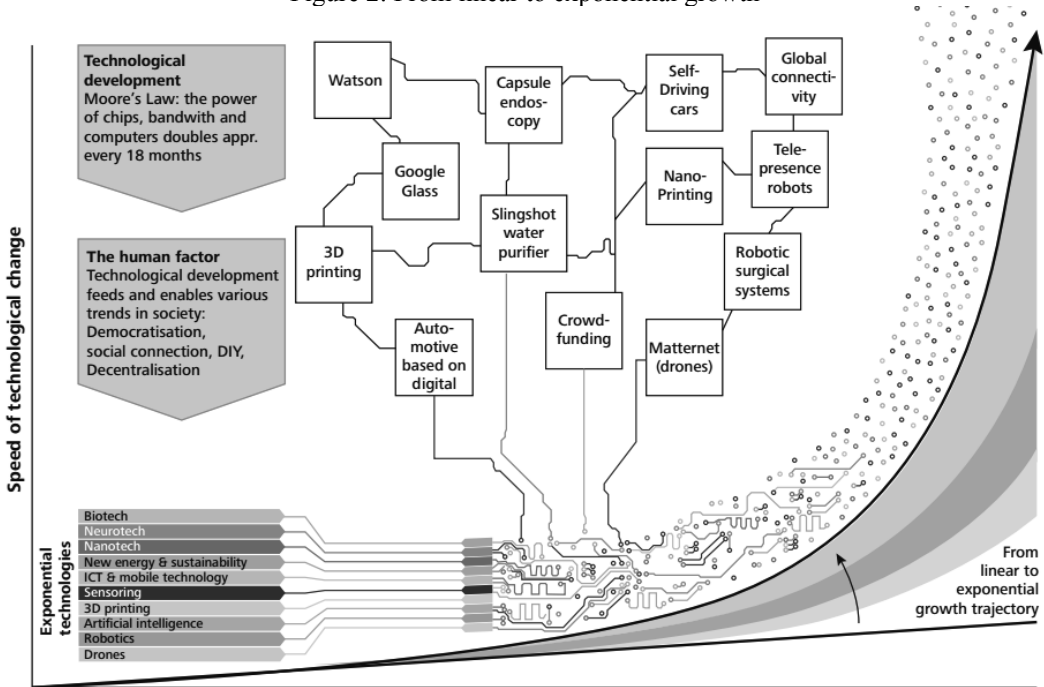
<sup>4</sup> <https://ec.europa.eu/eurostat> (30.09.2017).

<sup>5</sup> IFR, International Federation of Robotics Report, *World Robotics 2016 Industrial Robots*, p. 11-18, <https://ifr.org/ifr-press-releases/news/world-robotics-report-2016> (30.09.2017).

<sup>6</sup> Glod W. & Wronka-Pośpiech M., *The Relationships Between Organizational Culture and Management Innovation in Polish Enterprises*, Conference paper, Joint International Conference, 2015.

<sup>7</sup> Golonka M., Gyorgy L., Krulis K., Pokrywka L., Vano V., *Middle Income Trap in V4 Countries? – Analysis and Recommendations*, The Kościuszko Institute Publication, 2015, p 27-45.

Figure 2: From linear to exponential growth



Source: Deloitte, Industry 4.0. Challenges and solutions for the digital transformation and use of exponential technologies, 2015

The innovation can be defined in many ways<sup>8</sup> – for purpose of this paper we will be focusing on very practical definition that clearly positions itself to what might be the most important for entrepreneurs – their offering. Innovation is to be understood then as the “creation of a viable new offering”<sup>9</sup>. By this definition, an innovation does not only mean invention. Innovations can be built on new discoveries, but there is more to it. E.g. they can be found in an efficient process of responding to customer’s needs or in a network environment surrounding companies. Further, innovations have to bring benefits to the company that exceed the expenditures incurred to develop the innovations. Also most of the innovations are based on already existing solutions. This means e.g. the implementation of methods known in other industries for new fields of operation. Therefore innovations rarely are real novelties. New products are only one of possibilities for innovating. Finally, Innovating requires identifying the problems that matter and moving through them systematically to deliver elegant solutions.

Before going to practical description of how such an innovation concept can work, one additional factor is necessary to be introduced – exponential technologies<sup>10</sup> and their impact on present face of industry. New technologies can be overrated because of the slow development curve in absolute terms at the beginning. However, exponential development can cause disruptive market changes and is

<sup>8</sup> Fagerberg J., *Innovation: A Guide to the Literature*, in The Oxford Handbook of Innovation, Oxford University Press, 2009, p 4-9. Suroso E., Azis Y., *Defining Mainstreams Of Innovation: A Literature Review*, Conference paper, First International Conference of Economics and Banking, ICEB, 2015, p 387-398.

<sup>9</sup> Keeley L., *op. cit.*, p. 5.

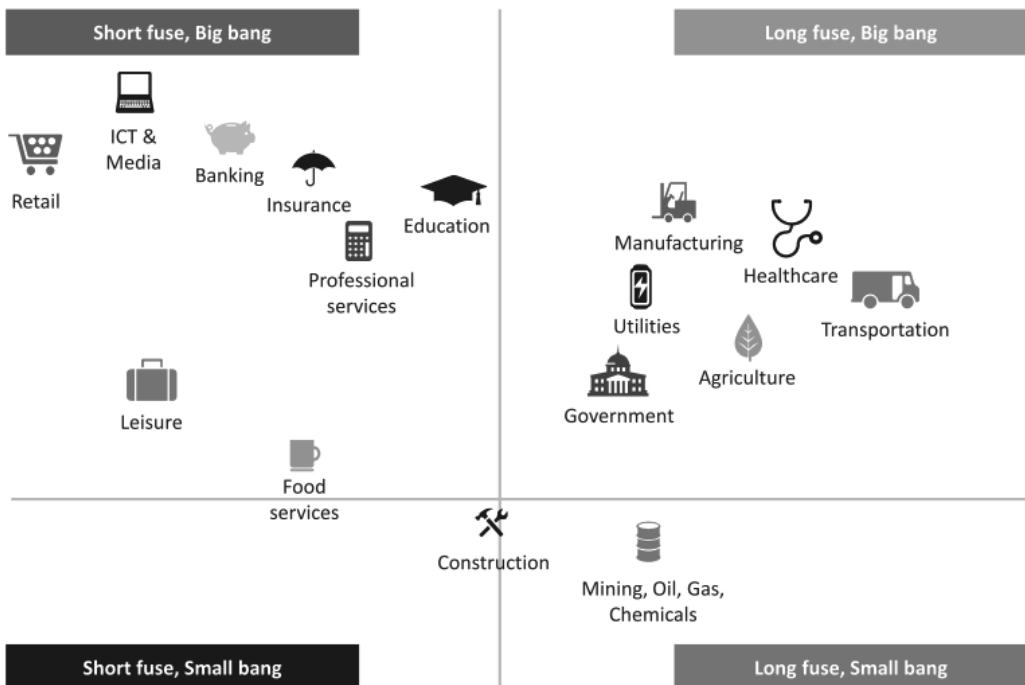
<sup>10</sup> Deloitte, Industry 4.0., *op. cit.*, p. 25.

able to create completely new business models. This is the reason why exponential growth do have a power and potential to fundamentally shape the whole industry, including so called industry 4.0 based on tailored individual solutions made for mass scale<sup>11</sup>. Technological changes throughout centuries have been growing by linear speed. Formulas and scientific predictions such as the “Moore’s Law”<sup>12</sup> have been shaping our understanding of growth. Meanwhile, technologies such as biotech, neurotech, nanotech, new energy and sustainability, information and communication technologies (ICT), mobile technologies, sensing, 3d printing, artificial intelligence, robotics and drones are facing exponential growth potential (see the figure below).

This means that even though not all of mentioned are hyper innovative themselves, they create the possibilities for many industries to innovate on unconventional ways and nonprecedental scale. It came by the evolution on certain technologies mentioned earlier supported i.a. by big data or machine learning, to introduce self driving cars, digitalisation of many sectors including traditional ones like automotive or energy, robotic surgical systems, virtual reality or drones technology accessible for all.

The predictions are still vital and necessary to develop strategies. Picture below shows how the changes are being predicted for certain industries in coming years when it comes to exponential technologies impact on the businesses.

Figure 3: Market disruption map



Source: Digital disruption – Short fuse, big bang?, Deloitte Australia<sup>13</sup>

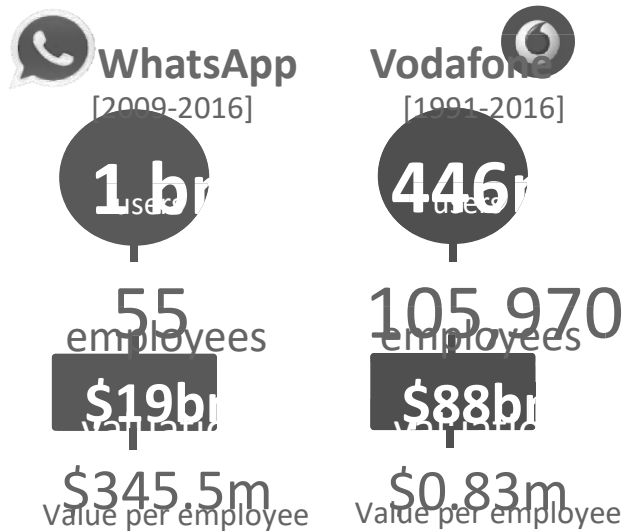
<sup>11</sup> Deloitte, Industry 4.0., *op. cit.*, p. 3-9.

<sup>12</sup> Thesis formulated in 1965 by Gordon Moore saying that power of chips, bandwidth and computers double each 18 months.

<sup>13</sup> <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Building%20Lucky%20Country/deloitte-au-consulting-digital-disruption-whitepaper-230217.pdf> (30.09.2017).

The difference between the old and the new paradigm of business model driven by exponential growth and technologies can be well observed by an example of two giants in ICT world: Vodafone and WhatsApp. Vodafone within 15 years reached total valuation of USD 88 bn reaches 0,4 bn users and USD 0,83 valuation per employee. WhatsApp needed 7 years to reach 1 bn users and capitalization of USD 345 m per employee! (see graphics below).

Figure 4: Market disruption – WhatsApp example



Source: Deloitte basing on WhatsApp and Vodafone public data<sup>14</sup>

Innovations however do not grow themselves. They require systematic and well understood way of identification of innovative potential in very wide scope of businesses around the globe. “10 types...” are unrevealing the ways and tools to effectively introduce such an approach in day-to-day business.

### **Identification of innovative areas of companies’ activities – 10 types in action**

“Ten types of innovation” is a concept developed by Larry Keeley in 1998 presenting practical approach to identifying innovative potential in wide scope of companies’ business value chain. It allows any company to look at its present ongoing activities, processes, offering and external interactions and identify areas that bring most promising potential to innovate and change the market face of the company. Identification of the most promising areas of company’s development based on innovation is based on comparison to the local competitors, global leaders and the best examples from other industries in order to implement the appropriate changes in selected areas and thereby enhance the competitive advantage and increase revenue.

<sup>14</sup> Developed basing on Vodafone and WhatsApp publicly available data: <https://vodafone.ie> (30.09.2017), <https://whatsapp.com> (30.09.2017).

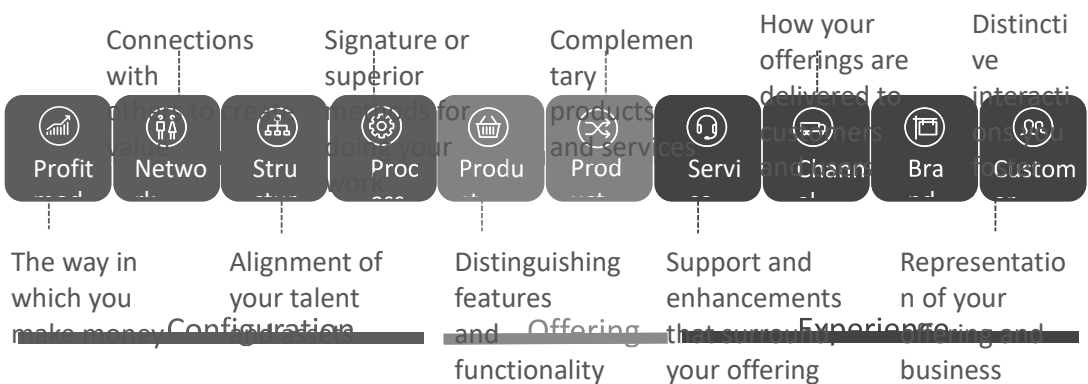
The concept is based both on academic research (authors are adjunct professors at Chicago’s Institute of Design) an business applied side (authors are co-founders of Chicago based firm Doblin involved in adapting innovation methods in many world’s leading global enterprises and start-ups).

The essence of an idea behind “Ten types of innovation” can be summarized by following main messages from Larry Keeley’s book<sup>15</sup>:

- 1) ”Innovation is not invention – it may involve invention, but it requires many other things as well – including a deep understanding of whether customers need or desire that invention, how you can work with other partners to deliver it, and how it will pay for itself over time.
- 2) Innovations need to earn their keep – they need to return value to you or your enterprise if you want to have a privilege of making another one some day. The innovation must be able to sustain itself and return its weighted cost of capital.
- 3) Very little is truly new in innovation – it is not appreciated enough that most innovations are based on previous advances. Innovations do not need to be new to the world – only to a market or industry.
- 4) It is necessary to think beyond products – innovations should be about more than products. They can encompass new ways of doing business and making money, new systems of products and services, and even new interactions and forms of engagement between your organization and your customers. The most certain way to fail is to focus only on products. Successful innovators use many types of innovation.
- 5) Innovation almost never fail due to lack of creativity. It’s almost always because of lack of discipline.
- 6) Successful innovators analyze the patterns of innovation in their industry. Then they make conscious, considered choices to innovate in different ways.
- 7) Innovations can be broken down and analyzed. When you do so, you will learn why most fail in a few seconds.
- 8) Innovations can be built up systematically. Doing so increases your odds of success exponentially.”

“Ten types of innovation” divides the whole firm’s reality into three dimensions: configuration, offering and experience. These three constitute every aspect of companies’ management and operational fields (see the graphics below).

Figure 5: Ten types of Innovation



Source: “Ten types of innovation...”<sup>16</sup>

<sup>15</sup> Keeley L., *op. cit.*, p. 2-8.

<sup>16</sup> Developed basing on Keeley L., *op. cit.*, p. 16 onwards.

“Configuration” is most internally focused and covers all processes within the company (profit model, network, structure and process). “Offering” touches upon everything connected with products or services development (products performance, products system). “Experience” is all about the customer – concentrates on product delivery and after-care services (service, channel, brand and customer engagement).

Going through the whole value chain of any company “Ten types...” defines the following areas of focus for innovative solutions and approach:

- 1) Profit model – focuses on potential alternative ways in which the company makes money and creates value to customers basing on other resources available within, i.a.:
  - a. Cost leadership
  - b. Bundled pricing
  - c. Licensing
  - d. Risk sharing
  - e. Subscription
- 2) Network – analyzes and creates connections with others that can create value for the business and allows to capitalize on own strengths basing on others’ resources, i.a.:
  - a. Alliances
  - b. Consolidation
  - c. Franchising
  - d. Open Innovation
  - e. M&A
- 3) Structure – introduces unique new ways of potential alignment of company’s talents and assets – hard, human or intangible – to create value, i.a.:
  - a. R&D center
  - b. Incentive systems
  - c. IT integration
  - d. Knowledge management
  - e. Outsourcing
- 4) Process – focuses on superior and alternative methods of doing work, often basing on experiences coming from other sectors, i.a.:
  - a. Crowdsourcing
  - b. Intellectual property
  - c. Lean production
  - d. Logistic systems
  - e. User-generated
- 5) Product performance – identifies ways and allows for distinguishing features, values and functionalities of company’s offering, i.a.:
  - a. Customization
  - b. Ease of use
  - c. Environmental Sensitivity
  - d. Safety
  - e. Performance Simplification
- 6) Product system – addresses features of complementary products and services to create synergies together where it would not be possible without connections, i.a.:
  - a. Extensions
  - b. Integrated offerings
  - c. Product/Service Platforms
  - d. Plug-ins
  - e. Product bundling

- 7) Service – focuses on supporting enhancements that surround your offering to make them more valuable and to reveal functionalities that might have been overlooked by customers otherwise, i.a.:
  - a. User Communities
  - b. Lease or loan
  - c. Loyalty programs
  - d. Self-service
  - e. Try before you buy
- 8) Channel – analyzes how the offerings are delivered to customers and encompasses the ways the company connects to the customers and users, i.a.:
  - a. Go Direct
  - b. Experience center
  - c. Indirect distribution
  - d. Multi-level marketing
  - e. On-demand
- 9) Brand – creates ways of representation of the offering and business to make sure the customers and users recognize, remember and prefer the offering as opposed to the competition, i.a.:
  - a. Brand Extension
  - b. Certification
  - c. Co-Branding
  - d. Private Label
  - e. Values Alignment
- 10) Customer engagement – identifies distinctive interactions fostered by the company to create understanding of deep-seated customer preferences, i.a.:
  - a. Autonomy and Authority
  - b. Community and Belonging
  - c. Mastery
  - d. Personalization
  - e. Status and Recognition

“Ten types...” methodology provides tools to analyze the whole value chain of the company and stream it through ten areas of innovation. As a result the business can receive new perspective of its performance, development plans and potential restructuring areas and actions. It also allows to identify errors or omissions that are very often not appreciated enough by the company. Meanwhile identification and effective usage of unused resources and assets (internal and external) can be of value to increase business profitability, brand recognition, customers’ engagement and foster development or new growth strategies.

### **Non obvious areas of business development and new business development models – case studies**

In order to exemplify practical usage of the “Ten types of innovation” methodology following case studies have been identified as bringing value for better demonstration and understanding.

Case study 1 – start-up-subscription model in traditional sector – “Dollar Shave Club”<sup>17</sup>

Dollar Shave Club is a company that delivers razors and other personal grooming products to customers by mail. It delivers razor blades on a monthly basis and offers additional grooming products for home delivery. It does not enter into competition on the product area. Knowing the market populated by very strong international brands „Dollar Shave Club” offers innovative subscription payment model.

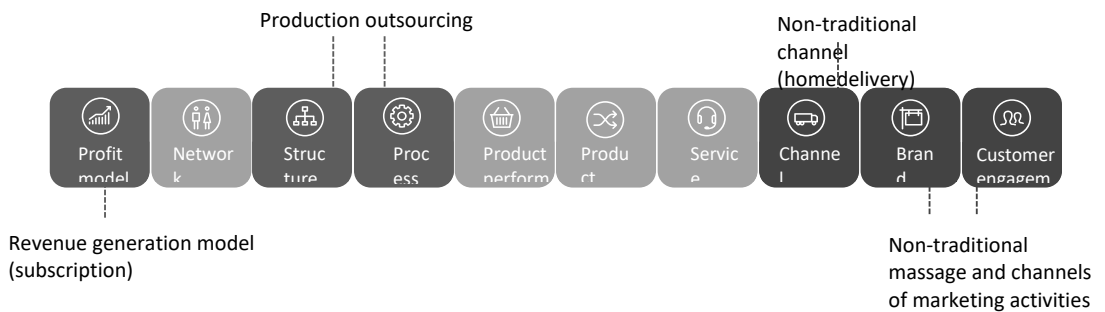
<sup>17</sup> [https://en.wikipedia.org/wiki/Dollar\\_Shave\\_Club](https://en.wikipedia.org/wiki/Dollar_Shave_Club) (30.09.2017).



Additionally, non traditional distribution channel is being used – no stores, no intermediaries. A viral movie have also been introduced to attract attention and recognition among customers. The movie have been developed creatively, with passion and gathered millions of appearances<sup>18</sup>. Viral marketing, as non-traditional message and the channel has helped significantly to acquire customer base.

This start-up, created in 2011 introduced a new business model in the industry, avoiding high competition in the product innovation types. The model have been using six types of innovation simultaneously – profit model (subscription), structure and process (production outsourcing), channel (viral marketing), brand and customer experience (non-traditional message and channels of marketing activities) (see figure below).

Figure 6: Dollar Shave Club types of innovation



Source: „Ten types of innovation...”<sup>19</sup>

What is worth to underline, the solutions introduced by founders of “Dollar Shave Club” are not innovative themselves and they definitely exist in other sectors and on other markets. However putting them into the new context and new product reality makes difference. This difference cannot be underappreciated – the “Dollar Shave Club” had raised over USD 160M and reached valuation of USD 539M. Eventually, in 2016 have been purchased by Unilever for USD 1bn<sup>20</sup>.

## Case study 2 – how big players cope with disruption – global company example

One of the biggest challenges to large firms is to how take example from start-ups and use their creative and flexible approach to business aligned with quick decision making process and relatively low costs of innovative projects failure. General Electric (GE) has got the answer – FirstBuild<sup>21</sup> owned by GE Appliances, once a unit of GE before it was sold to Haier. FirstBuild has got a 35,000 sq.-ft. microfactory open to public where anyone can introduce and test their novel idea for products. It serves as a public space where product ideas are crowdsourced. FirstBuild provides resources (technical and material) for first models/prototypes manufacturing with minimal costs and then the best suggestions are ultimately developed by FirstBuild engineers and implemented by GE or sold to large manufacturers.

<sup>18</sup> <https://www.youtube.com/watch?v=ZUG9qYTJMsI> (30.09.2017).

<sup>19</sup> Developed basing on Keeley L., *op. cit.*, p. 16 onwards.

<sup>20</sup> <https://www.fortune.com/the-age-of-unicorns> (30.09.2017)

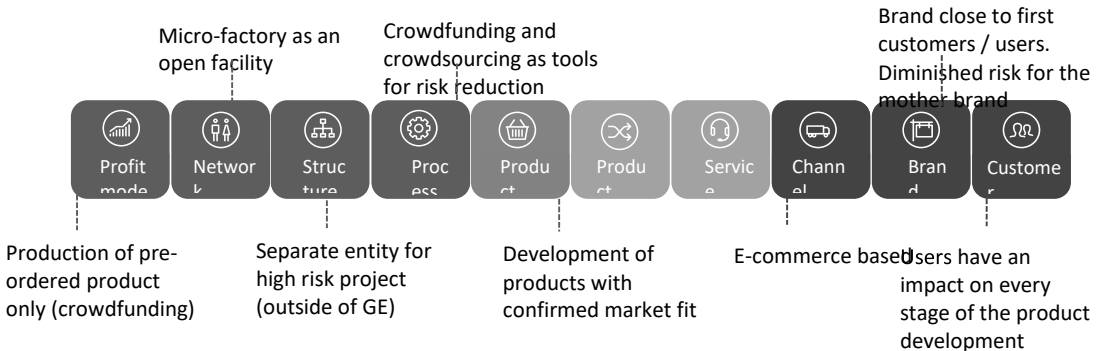
<sup>21</sup> <https://firstbuild.com/> (30.09.2017)

First prototypes need to pay for themselves, meaning they need to find first financing on the market using crowdfunding i.a. kickstarter<sup>22</sup> or indiegogo<sup>23</sup>.

This innovative model has been introduced as an answer to high manufacturing start-up cost for new product. Thanks to its introduction it has become possible to limit costs of new product introduction from dozen millions of USD to marginal amounts that FirstBuild generates divided by number of projects delivered. FirstBuild also allows to bring ideas from outside GE which makes new ideas generation limitless and very cheap – anyone can basically walk into GE Appliances’ new innovation hub in Louisville, Kentucky and pitch an idea for what could become the company’s next big product.<sup>24</sup>

This success has been possible thanks to combining eight types of innovation: profit model (production of pre-ordered product only – crowdfunding), network (micro-factory as an open facility), structure (separate entity for high risk projects – outside of GE), process (crowdfunding and crowdsourcing as tools for risk reduction), product performance (development of products with confirmed market fit), product service (development of products with confirmed market fit), channel (e-commerce based), brand (brand close to first customers / users; diminished risk for the mother brand), customer engagement (users have an impact on every stage of the product development). (see the figure below).

Figure 7: FirstBuild types of innovation



Source: “Ten types of innovation...”<sup>25</sup>

### Chosen recommendations and conclusions from using the non-obvious approach to business development

Potential “Ten types of innovation” conclusions/recommendations after the company’s model review can cover i.a. business model shift – moving from building internal/process market advantages to creating value to customers and the company in the area of after-care services (see figure below).

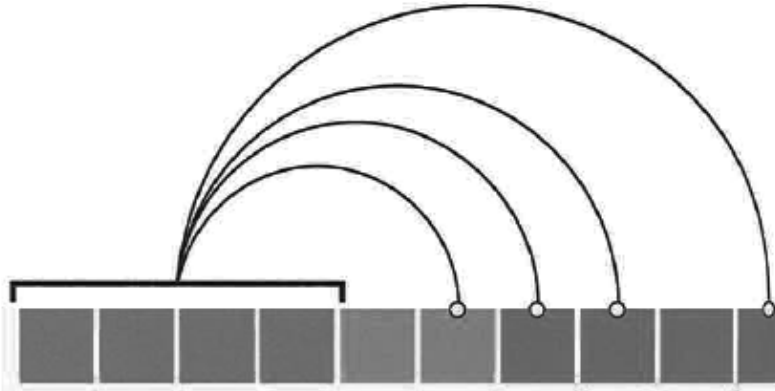
<sup>22</sup> <https://kickstarter.com> (30.09.2017)

<sup>23</sup> <https://indiegogo.com> (30.09.2017)

<sup>24</sup> <http://money.cnn.com/2016/07/20/smallbusiness/ge-appliances-firstbuild-crowdsourcing/> (30.09.2017)

<sup>25</sup> Developed basing on Keeley L., *op. cit.*, p. 16 onwards

Figure 8: Business model shift example



**BUSINESS MODEL SHIFT**

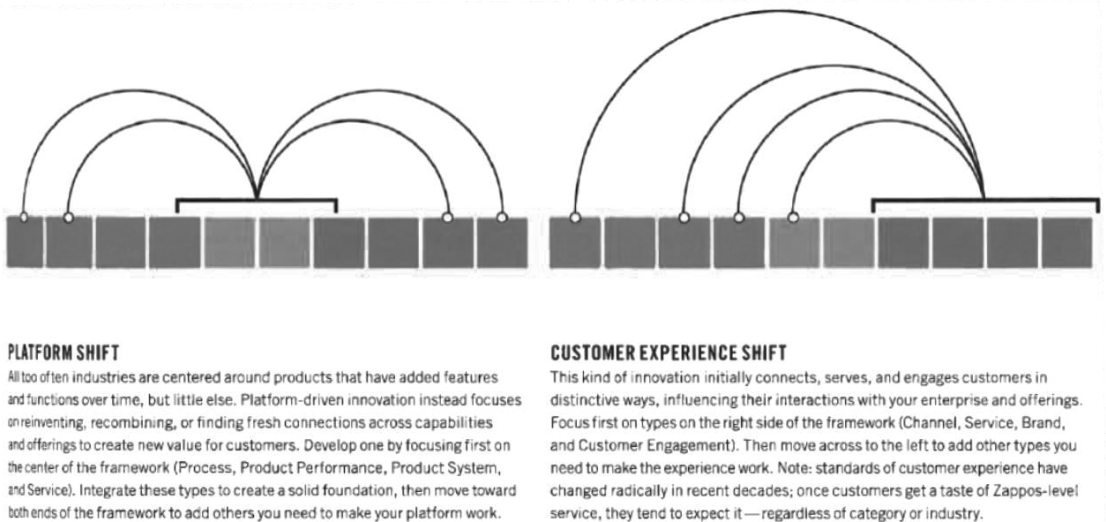
This kind of innovation focuses first on configuring assets, capabilities, and other elements of the value chain to serve customers and make money differently. For example, even firms that mostly sell hardware, like GE and Johnson Controls, are discovering that the real value comes from using pay-for-performance models that find ways to guarantee that customers use their products effectively. Create this shift by focusing initially on the left side of the framework (the types include Profit Model, Network, Structure, and Process). Then move across to the right to add the supplemental types you need to make the business model hum.

Source: “Ten types of innovation...”<sup>26</sup>

Another possibilities are platform shift – moving from products and/or service focused organization to creating value for customers in other parts of value chain, from both internal processes and customer focused areas perspective, or customer experience shift that allows to boost-up users perspective and users focused approach by adding internal processes perspective to the development and innovation picture (see figure below).

<sup>26</sup> Developed basing on Keeley L., *op. cit.*, p. 96-141.

Figure 9: Platform and customer experience shift examples



Source: “Ten types of innovation...”<sup>27</sup>

Such recommendations and conclusions as presented above represent the whole purpose of “Ten types...” tool and they can be achieved for any company after going carefully thru its value chain and the full scope of operations. The tool itself allows to identify strong areas of innovation potential for certain companies and therefore can be very appreciated as a useful mechanism on any stage of companies’ development. It however need to be underlined, that this concept to be fully understood and implemented, requires to look beyond present state of affairs of the certain company. Very often the board itself or any of the firm’s employees are not capable of thinking outside of the status quo and their comfort zone. “Ten types...” therefore can be used most effectively if implemented by outsiders who can bring not only a fresh momentum to the company’s operations but also a well established benchmarking, not necessary in the sector of given company’s operations.

## Bibliography

1. Deloitte, *Industry 4.0. Challenges and solutions for the digital transformation and use of exponential technologies*, 2015.  
<https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/manufacturing/ch-en-manufacturing-industry-4-0-24102014.pdf> (30.09.2017).
2. Deloitte Australia, *Digital disruption – Short fuse, big bang?*, Deloitte Australia  
<https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Building%20Lucky%20Country/deloitte-au-consulting-digital-disruption-whitepaper-230217.pdf> (30.09.2017).
3. Fagerberg J., *Innovation: A Guide to the Literature*, in *The Oxford Handbook of Innovation*, Oxford University Press, 2009.
4. Glod W. & Wronka-Pośpiech M., *The Relationships Between Organizational Culture and Management Innovation in Polish Enterprises*, Conference paper, Joint International Conference, 2015.

<sup>27</sup> Developed basing on Keeley L., *op. cit.*, p. 96-141.

5. Golonka M., Gyorgy L., Krulis K., Pokrywka L., Vano V., *Middle Income Trap in V4 Countries? – Analysis and Recommendations*, The Kościuszko Institute Publication, 2015.
6. IFR, *International Federation of Robotics Report*, World Robotics 2016 Industrial Robots, 2016. <https://ifr.org/ifr-press-releases/news/world-robotics-report-2016> (30.09.2017).
7. Keeley L., *Ten types of innovation. The discipline of building breakthroughs*, Published by John Wiley&Sons, Inc., Hoboken, New Jersey 2013.
8. Pigneur Y., Osterwalder A., *List otwarty do prezesów firm*, w: Harvard Business Review Polska, 2016. <https://www.hbrp.pl/b/list-otwarty-do-prezesow-firm/P15up4IYR1> (30.09.2017).
9. Suroso E., Azis Y., *Defining Mainstreams Of Innovation: A Literature Review*, Conference paper, First International Conference of Economics and Banking, ICEB, 2015.



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# THE NEW IMPERATIVE OF INNOVATION FOR VISEGRAD GROUP COUNTRIES

## *Summary*

*Encouraging innovation is a daunting task. Innovation depends on many diverse elements coming together, including a vibrant scientific community, financial markets open to funding new ideas and corporate research laboratories. An innovative ecosystem cannot be built overnight. While many governments have launched well intentioned programs to promote innovation, they have frequently encountered disappointments if not outright failures.*

*It is also explore the region's underperformance in innovation relative to more advanced economies. To do this, they use widely known and accessible metrics, such as country-level investment in research and development (R&D) as a percentage of gross domestic product (GDP) and the proportion of this investment funded by the private sector, researchers as a proportion of the labor force, and doctorates in science and engineering per capita. The publication also explores the extent to which progress in scientific productivity and knowledge inputs in the region (Visegrad countries – V4) has translated into commercially valuable technologies.*

*Author advocate that investments in STI must become a top priority and include institutional support for the key stakeholders in the innovation ecosystem. The publication's five dimensions of success for STI policies touch on well-established, international best practices that, if properly executed, should accelerate innovation and economic growth in the region. While general guidelines are established to direct work in the region as a whole, much care is taken to note the heterogeneity among countries. This paper will serve as an important resource in organizing policy initiatives and confronting the region's challenges moving forward.*

\* \* \*

## **Introduction**

Science, technology, and innovation (STI) have a pervasive and growing presence in all human activity. Accordingly, the Visegrad Group (V4 Countries) is expected to incorporate STI as an expanding part of its investment and economic reform programs and, more specifically, in areas such as energy production and consumption, environmental protection, agricultural production, transportation, commerce, public

administration, education, health care, and social policy. Such development reflects well-established worldwide trends toward increasing knowledge and innovation density in national economies.

Governments play a critical role in enhancing competitiveness by directly encouraging business innovation, by establishing an enabling environment for firm innovation and technology-based entrepreneurship, and by providing complementary public goods such as scientific knowledge and advanced human capital. Policies and programs that address market and coordination failures and support the development of national innovation systems seek to raise productivity and strengthen competitiveness.

The ultimate goal of public policy in this sector is thus to enhance business productivity and competitiveness in the V4 region by facilitating the creation and growth of dynamic firms with the capacities and tools to innovate and compete in international markets.

## **Innovation and Knowledge as Keys to Productivity Growth and Economic Development**

Innovation is the transformation of new ideas into economic and social solutions. Innovation can be the execution of a new way of doing things more efficiently (a more effective use of resources); a new or significantly improved product (good or service) or process; a new marketing practice; or a new organizational method in business practices, workplace organization, or external relations (OECD and Eurostat, 2005). For firms and countries, innovation is at the heart of sustainable competitive advantage, increased productivity, and economic progress.<sup>1</sup>

At the firm level, innovation means transforming ideas and knowledge into economic advantages such as higher productivity growth, new markets, and higher market shares. Hence, firms are the agents in charge of transforming knowledge into new economic solutions for their own benefit and the economy as a whole.

Endogenous growth models emphasize that R&D expenditures should be seen as an investment decision affected by the institutional and market conditions of each particular economy.<sup>2</sup> These models suggest that by affecting these factors, governments can encourage R&D investment decisions and economic growth. Beyond the simple accumulation of labor, physical, and human capital, innovation is a key determinant of long-term growth by improving the ways in which capital and labor combine and consequently improving the yields for the same level of productive factors. Empirical evidence shows that about half of the variation in income levels and growth rates among countries is due to differences in total factor productivity.<sup>3</sup> Previous research found that investment in R&D<sup>4</sup> explains up to 75 percent of the differences in total factor productivity growth rates, once externalities are considered.<sup>5</sup> Evidence from OECD countries shows that investment in R&D spurs productivity growth and not the other way

<sup>1</sup> A key implication of this definition is that innovation is not a synonym for scientific research or technology. In practice, it is often associated with them, but there is a wealth of non-technologically based innovation, as well as scientific results and even technology that does not necessarily translate into innovation. Innovation is firm based and is about new ways of doing things that add value. In contrast, invention shows how to do something and that it is feasible.

<sup>2</sup> Romer, P., "Endogenous Technological Change." *Journal of Political Economy* 1990; Aghion, P., Howitt, P., "A Model of Growth through Creative Destruction." *Econometrica* 1992.

<sup>3</sup> Hall, R., Jones, C., "Why Do Some Countries Produce So Much More Output Per Worker Than Others?" *The Quarterly Journal of Economics* 1999.

<sup>4</sup> R&D investment is commonly used as a proxy for investment in innovation because it can be relatively well measured and, conceptually, it constitutes a measure of the financial effort that countries put into new ideas in their economies. More precise measurements of innovation beyond R&D have only recently become available for a limited number of countries.

<sup>5</sup> Griliches, Z., "Issues in Assessing the Contribution of Research and Development to Productivity Growth." *Bell Journal of Economics* 1979.



around.<sup>6</sup> In other words, investment in innovation is a critical input in long-term growth, rather than simply a result of that growth.<sup>7</sup>

Consistent with previous findings, social returns on investment in innovation tend to be higher than the opportunity costs (returns on physical capital). For developed economies, social rates of return to R&D have been estimated at 40 percent or more. In addition to generating new knowledge, investments in innovation also have a direct effect on creating absorptive capacity.<sup>8</sup>

Innovation activities, particularly R&D investment, are fundamental to developing new competencies and the skills needed to seek, acquire, and adapt existing technology. In other words, innovation activity is a key driver of catching-up to more advanced economies.<sup>9</sup> In fact, in advanced economies, returns to R&D investment tend to increase with the distance to the technological frontier.

Even more importantly, social rates of return on innovation exhibit the same pattern in developing economies and some estimates find them to be even higher.<sup>10</sup> More recent research has introduced some caveats, finding that rates of return to R&D follow an inverted U pattern, increasing with distance to the frontier and then falling after a certain point, turning negative for the poorest countries. This phenomenon is attributed to the absence of a critical mass of complementary inputs for innovation, such as adequate human capital, scientific infrastructure, private sector development and sophistication, and coordination of the innovation system.<sup>11</sup>

Research by Lederman and Maloney (2003) found that rates of return were higher in countries with lower levels of economic development (as measured by GDP in purchasing power parity (PPP) per capita).<sup>12</sup> Those findings suggested that countries could take advantage of being behind the technological frontier by adapting or using technologies developed at the frontier presumably at a lower cost. Recent analysis by Goñi and Maloney found evidence of an inverted U relationship between returns to R&D and stages of development (as measured by distance to the economic frontier).<sup>13</sup> This implies that there is a point at which countries fall out of range and higher returns to R&D for economies that are a great distance from the frontier begin to dissipate. The authors concluded that this is most likely due to lack of complementary capacities (i.e., human capital, scientific infrastructure, and all the characteristics of a national innovation system) needed to efficiently absorb technology.

Many signs point to the fact that such important contributions of knowledge and innovation to growth are expanding at an accelerated rate. Increasingly, today's economies are becoming knowledge

<sup>6</sup> Rouvinen, P., "Characteristics of Product and Process Innovators: Some Evidence From the Finnish Innovation Survey." *Applied Economics Letters* 2002.

<sup>7</sup> The main point made here is not intended to imply that there is absolutely no effect of growth on innovation. For nuances in this regard see Griliches Z., "Productivity, R&D, and Basic Research at the Firm Level in the 1970s." *American Economic Review* 1986; Hall, B., Mairesse, J., "Exploring the Relationship between R&D and Productivity in French Manufacturing Firms." *Journal of Econometrics* 1995; and Goñi E., Maloney W.F., "Why Don't Poor Countries Do R&D?" Policy Research Working Paper 6811. The World Bank, Washington, DC 2014.

<sup>8</sup> Hall, B., Mairesse, J., Mohnen, P., "Measuring the Returns to R&D." Working Paper No. W15622, NBER, Cambridge, MA, 2009.

<sup>9</sup> The importance of knowledge and technological capabilities for catching up has been extensively documented by Griffith, R., Redding, S., and Van Reenen, J., "Mapping the Two Faces of R&D: Productivity Growth in a Panel of OECD Industries." *Review of Economics and Statistics* 2004. This was the case not only for Japan in the early 1930s, but also for the newly industrialized economies in Asia, notably South Korea. In both cases, catching up is associated with previous concerted efforts to build technological capacity.

<sup>10</sup> Benavente, J.M., De Gregorio, J., and Nuñez, M., "Rates of Return for Industrial R&D in Chile." Working Paper, Economic Department of the University of Chile, Santiago, Chile 2005.

<sup>11</sup> Goñi, E., and Maloney, W.F., "Why Don't Poor Countries Do R&D?" Policy Research Working Paper 6811, The World Bank, Washington, DC 2014.

<sup>12</sup> Lederman, D., and Maloney, W. "R&D and Development." World Bank Policy Research Working Paper No. 3024, The World Bank, Washington, DC 2003.

<sup>13</sup> Goñi, E., and Maloney, W.F., "Why Don't Poor Countries Do R&D?", op. cit.

economies. The ability and speed with which societies can absorb new technologies, access and share global information, and create and disseminate new knowledge have already become a major determinant of their ability to function and compete. Traces of these trends are everywhere: investment in knowledge-related activities and intangibles has been growing faster than capital investment in advanced economies for at least a decade.<sup>14</sup> The knowledge content of products and services is on the rise all over the world. The labor market shows a growing skills bias in both developed and developing economies, signaling that jobs growth will be in those occupations that involve sophisticated handling of symbols, information, and analysis.<sup>15</sup> The most dynamic industries are those that can be classified as knowledge intensive, and all economic activities, even the most traditional, are increasingly influenced by STI.<sup>16</sup> This has been the case for the better part of the past two decades. A key driving force behind the creation of a knowledge economy is the exponential growth in the volume and speed of information generated by the expansion of information and communications technology (ICT).<sup>17</sup> Indeed, given that ICT substantially lowers the cost of information storage and transmission, its diffusion throughout the economy reduces the uncertainty and transaction costs associated with economic interactions. Such technologies increase the organizational capacity of firms to codify knowledge that otherwise would remain hard to store, organize, transmit, and use, accelerating learning and reducing problems related to “organizational forgetting”.<sup>18</sup> Production processes can be decentralized more easily, meaning that different components of the same processes can be located in different countries based on the comparative advantages of each economy, resulting in major reconfigurations of global value chains.<sup>19</sup> On the demand side, the ICT revolution facilitates a higher degree of customization, opening new possibilities for developing countries to exploit emerging niches through ecommerce technologies. ICT shortens the distance between producers and users: buyers and sellers located in different cities, regions, and countries can share information on needs and products, reducing information asymmetries and market entry costs. This, in turn, leads to an increase in the volume of transactions, generating more output from the same set of inputs. In other words, ICT has triggered higher productivity levels.<sup>20</sup>

Yet, for all the development and potential of contemporary connectivity, the fact remains that innovation still takes a very long time to spread to most firms in developing countries. Available practical experience and recent research indicate that it is one thing to have the technology available, but quite another to incorporate it into the productive process. Not only does the public good nature of

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<sup>14</sup> *Latin American Economic Outlook 2013: SME Policies for Structural Change*, OECD, Paris, France 2013.

<sup>15</sup> This does not necessarily mean that investments in innovation are bound to produce rewards only for the highly skilled, or that innovation is inherently labor saving and therefore incompatible with job creation. Analyzing V4 economies, Crespi, Tacsir, and Vargas (2014) found that product innovation tends to lead to employment expansion in firms through the development of new production lines needed for the new products, although process innovation can lead to job cuts at the firm level. More generally, assuming innovations for a given market take hold in a particular firm or set of firms in a developing country far from the technological frontier, such innovation can have an aggregate expansive effect on employment by turning firms more competitive, leading to expanding sales and exports – see: Crespi, G., Tacsir, E. and Vargas, F., “Innovation and Productivity in Services: Empirical Evidence from Latin America.” Technical Note No. 690, IDB, Washington, DC 2014.

<sup>16</sup> “The Global Technology Revolution 2020, In-Depth Analyses: Bio/Nano/Materials/Information Trends, Drivers, Barriers, and Social Implications”, RAND Corporation, Santa Monica, CA 2007.

<sup>17</sup> A recent estimate indicates that there was an eighteen-fold increase in internet traffic across borders between 2005 and 2012 see – “Global Flows in a Digital Age”, McKinsey Global Institute, McKinsey & Company 2014. Accessible at: [http://www.mckinsey.com/insights/globalization/global\\_flows\\_in\\_a\\_digital\\_age](http://www.mckinsey.com/insights/globalization/global_flows_in_a_digital_age).

<sup>18</sup> Foray, D., “Enriching the Indicator Base for the Economics of Knowledge.” In *Science, Technology, and Innovation Indicators in a Changing World: Responding to Policy Needs*, OECD. Paris, France 2007.

<sup>19</sup> Lach, S., Bartel, A., and Sicherman, N., “Outsourcing and Technological Change.” Working Paper 11158, NBER, Cambridge, MA 2005.

<sup>20</sup> Spence, M., “Some Thoughts on ICT and Growth,” *Information Technology and International Development*. 2010.

knowledge stand in the way of smooth and rapid catching-up in terms of technology, but also very real factors prevent efficient dissemination of innovations. Although new ideas and inventions are reported ever more rapidly in today's interconnected world, it is a well-established fact that mere availability and sometimes even awareness of how better to produce or organize things is a far from sufficient condition for adopting new ideas and know-how in practice, in production, and in the economy. Adopting and absorbing existing technological innovations is an uncertain and risky process that is costly for firms and requires accumulation and assimilation of both physical and human capital.<sup>21</sup> In addition, a significant share of the knowledge important to the economy and development is tacit, meaning that it cannot be codified, explicitly documented, or transmitted outside direct personal interaction. It consists of competencies without formal comprehension, which represents often overlooked and formidable obstacles to knowledge diffusion.

### **Innovation as a Systemic Process: The Determinants of Innovation**

The growing literature on innovation systems provides deeper insight into the determinants of the innovation process.<sup>22</sup> This literature recognizes that innovation is not a simple linear process that flows smoothly from research to application; rather, it is a collective process involving interactive learning among several actors (e.g., researchers, firms, and users) and requiring multiple inputs (e.g., research, training, production facilities, engineering, problem-solving at the plant level, and marketing). An innovation system is defined as the set of economic agents, institutions, and practices that perform and participate in relevant ways in the process of innovation. Actors in a national innovation system (e.g., firms, universities, public agencies, governments, financial systems, and markets) contribute to generating, disseminating, using, exploiting, adapting, and incorporating knowledge into production systems and society.<sup>23</sup> As such, the National Innovation System (NIS) approach provides the framework within which governments form and implement policies to influence the innovation process.<sup>24</sup>

Increasingly, innovation is seen as an endeavor that requires multi-actor involvement (private, public, and academic) as well as conducive channels through which information and resources can move freely, such as university–industry linkages, financial institutions, and markets, to name a few.

Current literature provides ample support and empirical evidence for the notion that entrepreneurship is important to private sector development and economic growth. In addition, recent research has shown that fast growing firms could have a significant impact in terms not only of productivity and innovation, but also in terms of job creation, since evidence indicates that small and young firms may contribute to job growth more than established, older, larger firms.<sup>25</sup> The latest developments in ICT have made these

<sup>21</sup> Comin, D., Hobijn, B., and Rovito, E., “Five Facts You Need to Know About Technology Diffusion”, Working Paper 11928, NBER, Cambridge, MA 2006.

<sup>22</sup> Freeman, C., *Technology Policy and Economic Performance: Lessons from Japan*, Pinter, London, England 1987; Lundvall, B., *National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning*, Pinter, London, UK 1992.

<sup>23</sup> Metcalfe, S., “The Economic Foundations of Technology Policy: Equilibrium and Evolutionary Perspectives” In: P. Stoneman, editor, *Handbook of the Economics of Innovation and Technological Change*, Blackwell, Oxford, UK 1995.

<sup>24</sup> Kline, S.J., and Rosenberg N., “An Overview of Innovation”, In: R. Landau and N. Rosenberg, editors, *The Positive Sum Strategy: Harnessing Technology for Economic Growth*, National Academy Press, Washington, DC 1986. pp. 275–305.

<sup>25</sup> Haltiwanger, J., Jarmin, R.S., and Miranda, J., “Who Creates Jobs? Small vs. Large vs. Young.” *The Review of Economics and Statistics* 2013; Acs, Z., and Audretsch, D., “Small-Firm Entry in U.S. Manufacturing”, *Economica* 19891; Audretsch, D.B., and Keilbach M., “Entrepreneurship Capital and Economic Performance”, Discussion Paper 3678, Centre for Economic Policy Research, London, UK 2003; Criscuolo, C., Gal, P., and Menon, C., “The Dynamics of Employment Growth: New Evidence from 18 Countries”, Science, Technology, and Industry Policy Paper No. 14, OECD, Paris, France 2014.

issues more prominent than ever for decision-makers. Traditional thresholds to business development in key areas such as entry costs, access to talent, suppliers, clients, marketing channels, and means of payment have been lowered, and business models have been globalized and radically transformed through access to broadband communications and software applications. Firms located anywhere can have global aspirations and very rapid growth in a way unthinkable just two decades ago. Yet, due in part to the same kind of market failures identified above and a series of governmental and regulatory obstacles, dynamic, high-growth, technology-based entrepreneurship does not flourish spontaneously (Wagner and Stein, 2014).<sup>26</sup> Worldwide, however, the type of entrepreneurship born out of identifying market opportunities rather than out of plain need for income (or self-employment) is becoming a major focus for both private investors and public policy.<sup>27</sup>

In addition to the list of market failures outlined above, the following are particular obstacles to innovation in developing economies:

- 1) Weak linkages between firms or poor performing intermediary companies create huge information gaps and compromise the quality of the value chain as a whole;
- 2) Absorptive capacity tends to be endemically low, making it difficult for firms to extract the full potential of investments in new equipment or external knowledge;
- 3) Markets and firms tend to be smaller than they should optimally be, which prevents them from taking advantage of economies of scale (e.g., larger firm size is highly correlated with larger investments in R&D);
- 4) Scarcity of complementary products in many markets creates unnecessarily high uncertainty about the ability of firms to produce and market new goods;
- 5) Scarcity of specialized managers, knowledge brokers, technicians, and engineers well versed in certain industries or technologies make it difficult to diversify the economy or to take firms to the next level in terms of product sophistication and quality;
- 6) Good management practices have often not spread across firms to the same extent that is common in advanced economies;<sup>28</sup>
- 7) The emergence of new innovative firms is constrained by the weak market incentives that exist or the paucity of public policies to help them overcome obstacles to innovation such as those listed above.

Still another issue that is particularly hard to deal with in developing countries is directly related to their lower degree of institutionalization compared to centuries old public and private institutions that is typical of advanced economies. In a weak or incomplete institutional environment, getting the most out of investments in innovation becomes a challenge. Furthermore, acting and getting results in institutional change is often relatively more difficult and slow paced in developing countries than in developed economies.

Finally, social issues such as poverty, social exclusion, and access to education and health care are especially prominent in most developing countries. With scarce resources, these social issues may leave

<sup>26</sup> Wagner, R., and Stein, E., "The Start-Up and Scale-Up of High-Productivity Firms." In: Crespi, G., Fernández-Arias, E., and Stein, E., (editors), *Development in the Americas: Rethinking Productive Development: Sound Policies and Institutions for Economic Transformation*, IDB and Palgrave-Macmillan, Washington, DC 2014.

<sup>27</sup> Lerner, J., "The Architecture of Innovation: The Economics of Creative Organizations", Harvard Business School Publishing Corporation, Boston, MA 2012. The literature has come to designate these two varieties of entrepreneurship as necessity driven and opportunity driven. The most common form in V4 countries is by far necessity-driven, comprising most of what is usually understood as the vast informal sector in most economies in the region. All references to entrepreneurship issues belong rather to the opportunity-driven kind, since, when productivity growth through innovation is the focus of either public policy or private investment decisions, only high-quality ventures with high potential for fast growth harbor a real possibility of contributing to economic growth and significant employment creation – see Shane, S., "Why Encouraging More People to Become Entrepreneurs Is Bad Public Policy", *Small Business Economics* 2009.

<sup>28</sup> Bloom, N., and Van Reenen, J., "Why Do Management Practices Differ across Firms and Countries?", *Journal of Economic Perspectives* 2010.

little room for innovation as a sector of public policy. Serious long-term competitiveness and productivity issues run the risk of being neglected. A response to this state of affairs has been the notion of social innovation, which points to the potential of technology- and non-technology-based innovations to address and provide solutions to social issues.

Market failures associated with innovation activity represent, worldwide, a compelling rationale for public intervention to foster productivity growth by encouraging firm innovation. Under the market conditions typical of developing economies, knowledge gaps regarding specific market distortions create the need for a deliberate, policy based, search process and suggest a strong case for active STI policies.<sup>29</sup> Such policies can address market failures by developing programs in areas such as incentives to business innovation, value chain upgrades, business incubators and accelerators, venture capital market development, industrial cluster strengthening, or talent acquisition (highly skilled migration). The combination of innovation and trade policy also belongs in this discussion. According to the existing literature, there are significant feedback effects between innovation on one hand and export and foreign investment on the other.<sup>30</sup>

Two general modalities of intervention exist. First, investment in innovation at the firm level (individual firms or a group of firms linked in a value chain or a cluster) can be directly encouraged. Second, framework conditions (e.g., improving the availability of key inputs for innovation) that lead to increased levels of innovation activity in the economy as a whole can be addressed. Both firm-oriented and framework-enhancing policies are consistent with higher and sustained productivity growth. Further, both can be horizontal if they apply to the whole economy or vertical if they concern a particular economic sector, value chain, or industrial cluster. Table 1 illustrates the quadrants resulting from this typology and provides a partial list of policy interventions included in each quadrant. Allowing for the particular circumstances of each economy, all four groups of interventions are potentially relevant for V4 countries. A brief discussion of the main policy instruments involved follows.<sup>31</sup>

Support for firm innovation is a generally accepted governmental practice around the world. In OECD countries, between 10 percent and 45 percent of manufacturing firms receive public support for innovation in any given year through a variety of channels that include direct transfers and tax credits.<sup>32</sup> Fiscal incentives for innovation are an established practice in a few countries in V4 countries, but the instrument of choice across the region tends to be innovation funds that allocate resources to private firms for innovation projects on a competitive basis. A long list of reasons derived both from innovation policy (e.g., better targeting and additionality, accessibility to SMEs, and transparency) and fiscal policy (e.g., the simplicity of the tax code and moral hazard) show the superiority of direct subsidies over fiscal incentives.<sup>33</sup>

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<sup>29</sup> Crespi, G., Fernández-Arias, E., and Stein, E., (editors), “Rethinking Productive Development: Sound Policies and Institutions for Economic Transformation”, op. cit.

<sup>30</sup> Aw, B.Y., Roberts, M.J., and Yi Xu, D., “R&D Investments, Exporting, and the Evolution of Firm Productivity”, *The American Economic Review* 2008.

<sup>31</sup> Crespi, G., Fernández-Arias, E., and Stein, E., (editors), “Rethinking Productive Development: Sound Policies and Institutions for Economic Transformation”, op. cit.

<sup>32</sup> The focus on manufacturing innovation reflects only the far better availability and comparability of data for innovation processes and outcomes in manufacturing firms, a bias shared by data bases available both in V4 and the OECD. This should not obscure the fact that innovation in the service and natural resources sectors are equally relevant for the discussion, and the generalizations made here apply to them as well.

<sup>33</sup> International and V4 countries experience indicates that well-designed tax exemptions for R&D activity can minimize risks and costs relative to alternatives so that they become a part of a good policy mix – see Crespi, “Fiscal Incentives for Business Innovation.” In: Corbacho, A., (coordinator), *The Fiscal Institutions of Tomorrow*, IDB, Washington, DC 2012.

Table 1. STI Policy in Four Quadrants

Scope	Types	
	Horizontal	Vertical
Public Good	<ul style="list-style-type: none"> <li>– Higher education and training</li> <li>– Support of scientific research</li> <li>– Intellectual property rights</li> <li>– Research infrastructure</li> <li>– Human capital immigration</li> <li>– Labor training</li> <li>– Competition policy</li> <li>– Regulation</li> <li>– Technology transfer organization</li> <li>– Entrepreneurship education</li> <li>– Intellectual property rights and bankruptcy legislation and regulation</li> <li>– Innovation climate</li> <li>– Improve deal flow through technology transfer</li> <li>– Tax policy</li> </ul>	<ul style="list-style-type: none"> <li>– Technological institutes (e.g., agriculture, industry, energy, and fishing)</li> <li>– Standardization</li> <li>– Thematic funding</li> <li>– Signaling strategies</li> <li>– Information diffusion policies (extension systems)</li> <li>– Technological consortiums</li> <li>– Contests</li> <li>– Industry-specific training programs</li> </ul>
Market Intervention	<ul style="list-style-type: none"> <li>– R&amp;D subsidies</li> <li>– R&amp;D tax credits</li> <li>– Financial measures (e.g., guarantees for technology investments and intangibles values)</li> <li>– Adoption subsidies</li> <li>– Public financing of seed, angel, and venture capital, directly or through private venture capital funds</li> <li>– Generic business incubators and accelerators</li> <li>– Tax incentives</li> </ul>	<ul style="list-style-type: none"> <li>– Public procurement</li> <li>– General purpose technologies (e.g., ICTs, biotech, and nanotech)</li> <li>– Strategic sectors (e.g., semiconductors, nuclear energy, and electronics)</li> <li>– Defense sector</li> <li>– Business incubators and accelerators focused on a particular strategic sectors (e.g., ICT or biotechnology)</li> </ul>

Source: Crespi, G., Fernández-Arias, E., and Stein, E., (editors), *Development in the Americas: Rethinking Productive Development: Sound Policies and Institutions for Economic Transformation*, IDB and Palgrave-Macmillan, Washington, DC 2014.

### Innovation performance of the V4 countries

As innovativeness is a very complex phenomenon, it is worth looking at the innovation process from a broader perspective, taking the whole innovation system into account. It encompasses the human capital and knowledge resources accumulated in the system, as well as institutions related to the development of science, technology, education and entrepreneurship.<sup>34</sup>

<sup>34</sup> Weresa, M.A., (ed.), *Innovation, human capital and trade competitiveness. How are they connected and why do they matter?*, Springer, New York 2014.

To evaluate an economy's innovativeness in a summary form, the methodology used by the European Commission for assessing the level of innovativeness of individual European Union member states is adopted. The focal element of this methodology is the Summary Innovation Index (SII), a composite index capturing the complex nature of innovative processes by measuring various elements of innovativeness, starting with innovation enablers (measured by R&D expenditure, doctorate graduates, educational attainment, scientific publications, etc.), through company activities (reflected in business R&D, collaboration in innovation activity, patent applications, etc.), up to the output of innovative activities (e.g. sales of new-to-market and new-to-firm innovations, knowledgeintensive services exports, high-tech product exports in proportion to total exports).<sup>35</sup>

Based on the average innovation performance measured by the Summary Innovation Index, the EU member states have been divided into four different performance groups: innovation leaders, strong innovators, moderate innovators and modest innovators.<sup>36</sup> All V4 countries fall into the group of 'moderate innovators'. Throughout the 2008–2015 period, the innovation performance of the V4 countries measured by the SII lagged behind the EU average.

The performance of Czech Republic relative to the EU average was 83.1% in 2015, down from 83.3% in 2008. Hungary's performance in 2015 represented 68% of the EU average, down from 69.7% in 2008. A similar trend was observed in Poland, declining from 58.5% in 2008 to 55.9% in 2015. Slovakia improved over the 2008–2015 period, with its SII 64.2% of the EU average in 2008 and 67.1% in 2015. Therefore, it can be concluded that in three V4 countries the gap vis-à-vis the EU average grew, most of all in Poland (by 2.6 p.p.), followed by Hungary (1.7 p.p.) and Czech Republic (0.2 p.p.). Slovakia was the only V4 country able to reduce the innovation gap over the 2008–2015 period (by 3 p.p.). Though it remained behind the best V4 performer, Czech Republic, it caught up with Hungary. Poland was the laggard, not only with regard to innovation performance measured by the SII, but also to its negative development over the 2008–2015 period.

Nevertheless, all V4 countries have some relative strengths bringing them closer to the EU average when individual SII indicators are taken into account. In Czech Republic, the top five innovation indicators see the country outperforming the EU average: international scientific co-publications, R&D expenditure in the public sector, exports of medium- and high-tech products, collaboration of innovative SMEs, and upper secondary education. The weakest areas of Czech innovation are: venture capital investment, PCT patent applications and the number of non-EU doctorate students. The area in which the country is increasingly underperforming is innovation funding and support, in particular venture capital investment.<sup>37</sup>

Hungary performs below the EU average in nearly all 25 SII indicators, with only two areas in which performance is much above European average: revenues from abroad for licences and patents, and exports of medium – and high-tech products. The Hungarian innovation system is especially weak in the following areas: non-EU doctorate students, community designs and PCT patent applications.<sup>38</sup>

Poland's innovation performance is stronger than the EU average in four areas: non- R&D innovation expenditure, community designs and human resource development measured by the population with completed tertiary education as well as by upper secondary education. The indicators furthest below the EU average are: non-EU doctorate students, private-public scientific co-publications, PCT patents

<sup>35</sup> For a detailed methodology and complete list of the 25 indicators constituting the Summary Innovation Index see: the Methodology Report of the European Innovation Scoreboard 2016, [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index\\_en.htm](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm).

<sup>36</sup> European Commission, European Innovation Scoreboard 2016, [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index\\_en.htm](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm)

<sup>37</sup> European Commission, European Innovation Scoreboard 2016, [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index\\_en.htm](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm)

<sup>38</sup> Ibidem.

applications, and revenues from abroad for licences and patents. The strongest deterioration in Poland's innovation performance was noted in collaboration of innovative SMEs.<sup>39</sup>

Slovakia's largest relative strengths in terms of indicators above the European average include: sales share of new innovations, new doctorate graduates, exports of medium and high-tech products, non-R&D innovation expenditure, and upper secondary education. A huge performance decline is observed in revenues from abroad for licences and patents and non-R&D innovation expenditure. The former also belong to the weaknesses of Slovakia's national innovation system. Other indicators well below the EU average are: non-EU doctorate students, venture capital investments, and PCT patent applications.<sup>40</sup>

Table 2 summarizes main strengths and weaknesses of national innovation capacity of V4 countries in 2015.

Table 2. Major strengths and weaknesses of national innovation capacity of the V4 countries in 2015

Country	Strengths	Weaknesses
Czech Republic	<ul style="list-style-type: none"> <li>– international scientific co-publications</li> <li>– R&amp;D expenditure in the public sector</li> <li>– exports of medium- and high-tech products</li> <li>– collaboration of innovative SMEs</li> <li>– non-R&amp;D innovation expenditure</li> <li>– upper secondary education</li> </ul>	<ul style="list-style-type: none"> <li>– venture capital investment</li> <li>– PCT patent applications</li> <li>– number of non-EU doctorate students</li> </ul>
Hungary	<ul style="list-style-type: none"> <li>– revenues from abroad for licences and patents</li> <li>– exports of medium- and high-tech products</li> <li>– non-R&amp;D innovation expenditure</li> <li>– upper secondary education</li> </ul>	<ul style="list-style-type: none"> <li>– non-EU doctorate students</li> <li>– community designs</li> <li>– PCT patent applications</li> </ul>
Poland	<ul style="list-style-type: none"> <li>– non-R&amp;D innovation expenditure</li> <li>– community designs</li> <li>– population with completed tertiary education</li> <li>– upper secondary education</li> </ul>	<ul style="list-style-type: none"> <li>– non-EU doctorate students</li> <li>– private-public scientific co-publications</li> <li>– PCT patent applications</li> <li>– revenues from abroad for licences and patents</li> </ul>
Slovakia	<ul style="list-style-type: none"> <li>– sales share of new innovations</li> <li>– new doctorate graduates</li> <li>– exports of medium- and high-tech products</li> <li>– non-R&amp;D innovation expenditures</li> <li>– upper secondary education</li> </ul>	<ul style="list-style-type: none"> <li>– revenues from abroad for licences and patents</li> <li>– non-EU doctorate students</li> <li>– venture capital investments</li> <li>– PCT patent applications</li> </ul>

Source: own elaboration based on European Commission, 2016.

<sup>39</sup> Ibidem.

<sup>40</sup> Ibidem.



One common feature of innovation capacity in which the V4 group has a relatively good performance is upper secondary education. This result points to potential improvements in the countries' innovation performance in the future. Furthermore, it can be observed that all V4 countries base their innovation performance first of all on non-R&D expenditure, an indicator above the EU average, while both public and private R&D expenditure in relation to GDP is much below the EU average. The only exception to this trend is Czech Republic, where the public R&D to GDP ratio exceeds the EU average. This is one of the elements contributing to the country's leading innovation position in the V4 group.

It should also be noted that Czech Republic, Hungary and Slovakia are relatively strong in manufacturing, with the shares of medium- and high-tech products in total exports of these countries higher than the EU average. There are two very weak indicators common to the whole V4 group. These are PCT patent applications and the share of non-EU doctoral students. Furthermore, in Czech Republic and Slovakia there is also a need to improve the venture capital market, as in these countries venture capital investments are much below the EU average.

Looking at the weaknesses from a broader perspective, an insufficient development of linkages and entrepreneurship should be pointed out, as reflected in the SII 'Linkages & entrepreneurship' sub-index. Over the 2008-2015 period this sub-index was significantly lower in the V4 (except in Czech Republic in 2008-2009) than the EU average, and, what is more, declined in all V4 countries. The weaknesses of V4 innovation capacity are all in areas where policy intervention is needed. This aspect will be discussed in the concluding section of this paper. Summing up, the analysis of the developments over the 2008-2015 period with regard to the national innovation capacities of the V4 countries shows that Slovakia is the only one where convergence with the EU28 average in terms of prosperity (measured in real GDP per capita) has been accompanied by a catching-up with the EU average in terms of innovativeness. Yet convergence in prosperity in Slovakia was the slowest among the V4 countries. While prosperity in the other V4 countries also converged, their innovation performance diverged. Poland is an extreme case among the V4 group, showing the fastest prosperity convergence, yet the largest innovation divergence in the 2008-2015 period.

These differences in convergence/divergence trends in prosperity and innovation performance allow us to draw a tentative conclusion that innovation was not the driver of V4 competitiveness in the post-crisis period. While the innovation performance of the V4 countries (except Slovakia) declined compared to the EU average, their competitiveness improved. Therefore, it seems that the availability of resources and their relatively lower prices still constitute the main competitiveness pillars in the V4 countries.

## **Conclusion**

The analysis conducted above allows the conclusion that the role of innovation in shaping competitiveness in V4 countries remains limited. All V4 countries still use relatively low input costs as their main base for competitiveness. However, this is no longer sufficient to keep up with other emerging economies and to catch up with developed countries. The main barriers for the V4 countries in switching to a new competitiveness model based on skills and innovation are:

- a too low R&D level (including business R&D); with innovation mainly supported by non-R&D investments;
- inefficient links between science and business;
- barriers to knowledge diffusion and learning processes;
- insufficient development of digital skills.

To make V4 economies more competitive, long-term policy aims should focus on accelerating the catching-up process with regard to innovation and human capital development. This should be accompanied by steps to reduce the digital divide vis-à-vis more advanced Western European EU member states. However, these goals can only be achieved when a broader institutional environment is

addressed by appropriate policy measures. Further institutional changes are needed, including reforms in the education and science sectors, further deregulation of markets and support for entrepreneurship and establishing start-ups.

Furthermore, these steps should be coupled with policies aimed at fostering the development of assets embodying creativity potential, such as knowledge, technology, human capital. At the same time, innovation should be enhanced as a primary driver of V4 competitiveness. The expansion of innovative companies requires reforms in the R&D sector, the introduction of new policies aimed at boosting business R&D as well as the injection of additional funds, in particular, higher investment in knowledge diffusion. The latter can be eased by incentives for venture capital market development.

The improvement of innovative capacity should be supported by cluster development, including the strengthening of local supplier networks around foreign investments. Last but not least, multi-level governance of research and innovation needs to be reshaped. The main focus here should be on the territorial dimension, including the better use of EU funds and the implementation of smart specialization strategies.

To achieve these policy goals, significant improvements in the business environment in the V4 countries are indispensable, as are the reduction of bureaucracy and the introduction of more efficient public-sector management. Innovation as a base for competitiveness should be promoted not only in business, but also in the public sector in order to increase the quality of public services.

## Bibliography

1. Acs, Z., and D. Audretsch. 1989. "Small-Firm Entry in U.S. Manufacturing", *Economica* 1989.
2. Aghion, P., Howitt, P., "A Model of Growth through Creative Destruction." *Econometrica* 1992.
3. Audretsch, D.B., and Keilbach M., "Entrepreneurship Capital and Economic Performance", Discussion Paper 3678, Centre for Economic Policy Research, London, UK 2003.
4. Aw, B.Y., Roberts, M.J., and Yi Xu, D., "R&D Investments, Exporting, and the Evolution of Firm Productivity", *The American Economic Review* 2008.
5. Benavente, J.M., De Gregorio, J., and Nuñez, M., "Rates of Return for Industrial R&D in Chile." Working Paper, Economic Department of the University of Chile, Santiago, Chile 2005.
6. Bloom, N., and Van Reenen, J., "Why Do Management Practices Differ across Firms and Countries?", *Journal of Economic Perspectives* 2010.
7. Comin, D., Hobijn, B., and Rovito, E., "Five Facts You Need to Know About Technology Diffusion", Working Paper 11928, NBER, Cambridge, MA 2006.
8. Crespi, "Fiscal Incentives for Business Innovation." In: Corbacho, A., (coordinator), *The Fiscal Institutions of Tomorrow*, IDB, Washington, DC 2012.
9. Crespi, G., Tacsir, E. and Vargas, F., "Innovation and Productivity in Services: Empirical Evidence from Latin America." Technical Note No. 690, IDB, Washington, DC 2014.
10. Criscuolo, C., Gal, P., and Menon, C., "The Dynamics of Employment Growth: New Evidence from 18 Countries", Science, Technology, and Industry Policy Paper No. 14, OECD, Paris, France 2014.
11. European Commission, European Innovation Scoreboard 2016, [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index\\_en.htm](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm)
12. Foray, D., "Enriching the Indicator Base for the Economics of Knowledge." In *Science, Technology, and Innovation Indicators in a Changing World: Responding to Policy Needs*, OECD. Paris, France 2007.
13. Freeman, C., *Technology Policy and Economic Performance: Lessons from Japan*, Pinter, London, England 1987; Lundvall, B., *National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning*, Pinter. London, UK 1992.

14. "Global Flows in a Digital Age", McKinsey Global Institute, McKinsey & Company 2014. Accessible at: [http://www.mckinsey.com/insights/globalization/global\\_flows\\_in\\_a\\_digital\\_age](http://www.mckinsey.com/insights/globalization/global_flows_in_a_digital_age).
15. Goñi E., Maloney W.F., "Why Don't Poor Countries Do R&D?" Policy Research Working Paper 6811. The World Bank, Washington, DC 2014.
16. Griffith, R., Redding, S., and Van Reenen, J., "Mapping the Two Faces of R&D: Productivity Growth in a Panel of OECD Industries." *Review of Economics and Statistics* 2004.
17. Griliches, Z., "Issues in Assessing the Contribution of Research and Development to Productivity Growth." *Bell Journal of Economics* 1979.
18. Griliches Z., "Productivity, R&D, and Basic Research at the Firm Level in the 1970s." *American Economic Review* 1986.
19. Hall, B., Mairesse, J., "Exploring the Relationship between R&D and Productivity in French Manufacturing Firms." *Journal of Econometrics* 1995;
20. Hall, R., Jones, C., "Why Do Some Countries Produce So Much More Output Per Worker Than Others?" *The Quarterly Journal of Economics* 1999.
21. Hall, B., Mairesse, J., Mohnen, P., "Measuring the Returns to R&D." Working Paper No. W15622, NBER, Cambridge, MA, 2009.
22. Haltiwanger, J., R.S. Jarmin, and J. Miranda, "Who Creates Jobs? Small vs. Large vs. Young" *The Review of Economics and Statistics* 2013.
23. Kline, S.J., and Rosenberg N., "An Overview of Innovation", In: R. Landau and N. Rosenberg, editors, *The Positive Sum Strategy: Harnessing Technology for Economic Growth*, National Academy Press, Washington, DC 1986.
24. Lach, S., Bartel, A., and Sicherman, N., "Outsourcing and Technological Change." Working Paper 11158, NBER, Cambridge, MA 2005.
25. *Latin American Economic Outlook 2013: SME Policies for Structural Change*, OECD, Paris, France 2013.
26. Lederman, D., and Maloney, W.. "R&D and Development." World Bank Policy Research Working Paper No. 3024, The World Bank, Washington, DC 2003.
27. Lerner, J., "The Architecture of Innovation: The Economics of Creative Organizations", Harvard Business School Publishing Corporation, Boston, MA 2012.
28. Metcalfe, S., "The Economic Foundations of Technology Policy: Equilibrium and Evolutionary Perspectives" In: P. Stoneman, editor, *Handbook of the Economics of Innovation and Technological Change*, Blackwell, Oxford, UK 1995.
29. *Productive Development: Sound Policies and Institutions for Economic Transformation*, IDB and Palgrave-Macmillan, Washington, DC 2014.
30. Romer, P., "Endogenous Technological Change." *Journal of Political Economy* 1990.
31. Rouvinen, P., "Characteristics of Product and Process Innovators: Some Evidence From the Finnish Innovation Survey." *Applied Economics Letters* 2002.
32. Shane, S., "Why Encouraging More People to Become Entrepreneurs Is Bad Public Policy", *Small Business Economics* 2009.
33. Spence, M., "Some Thoughts on ICT and Growth, " *Information Technology and International Development*. 2010.
34. "The Global Technology Revolution 2020, In-Depth Analyses: Bio/Nano/Materials/Information Trends, Drivers, Barriers, and Social Implications", RAND Corporation, Santa Monica, CA 2007.
35. The Methodology Report of the European Innovation Scoreboard 2016, [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index\\_en.htm](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm).
36. Wagner, R., and Stein, E., "The Start-Up and Scale-Up of High-Productivity Firms." In: Crespi, G., Fernández-Arias, E., and Stein, E., (editors), *Development in the Americas: Rethinking Productive*

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*Development: Sound Policies and Institutions for Economic Transformation*, IDB and Palgrave-Macmillan, Washington, DC 2014.

37. Weresa, M.A., (ed.), *Innovation, human capital and trade competitiveness. How are they connected and why do they matter?*, Springer, New York 2014.

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# SMALL INDUSTRIAL ENTERPRISES IN RUSSIA: REGIONAL HETEROGENEITY OF INNOVATIVE ACTIVITY DEVELOPMENT

## *Summary*

*The results of the analysis of the state of industrial small and medium-sized enterprises in EU-28 and Russia are presented. Clusters of Russian regions were found differing in the level of development of innovative activity of small enterprises. The measures were proposed to support and stimulate innovations in the SME sector, taking into account regional features.*

\* \* \*

## **Introduction**

The priority objectives of the state policy in the development of small and medium-sized enterprises (SME) are related to ensuring the competitiveness of enterprises and creating of competitive environment, promoting goods, works, services, intellectual property, increasing the share of small and medium-sized businesses in GDP. The support measures are aimed at the technological development of small and medium-sized enterprises, increasing their productivity, and stimulating the export of products. The program documents envisage an increase in the share of exports of small and medium-sized enterprises in the total volume of Russian exports from 6% in 2014 to 12% in 2030 and a growth of 4.25 million high-performance workplaces in small and medium-sized enterprises by 2030<sup>1</sup>.

The level of innovation activity of enterprises in Russia remains low and decreases with the transition to smaller size groups of enterprises. Among the surveyed types of economic activity, the level of innovation activity is the highest at industrial enterprises, namely, in the manufacturing industry. Thus,

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<sup>1</sup> Strategy for the Development of Small and Medium-sized Entrepreneurship in the Russian Federation for the period until 2030, [adopted on 02.06.2016]

the main source of technological innovation for business development, including small and medium-sized enterprises, should be enterprises of industrial production, first of all, of manufacturing.

In this regard, the analysis of the state and development trends of industrial small and medium-sized enterprises is an important part of monitoring of the entrepreneurship development in Russia.

In this case, the tasks as follows are of particular interest<sup>2</sup>:

- analysis of the contribution of small and medium-sized industrial enterprises to the major indicators of economic development;
- investigation of the state of innovation activity in the SME sector, taking into account regional heterogeneity in order to identify both the most problematic and successful subjects of the Russian Federation, i.e. the points of innovative growth of Russian business;
- detection of factors of increasing innovation activity of small industrial enterprises with the purpose of developing recommendations for improving measures to support small businesses.

The solution of this set of tasks is aimed at finding directions and mechanisms for activating innovative processes in the SME sector, taking into account industry and regional specifics.

### **Industrial small and medium-sized enterprises in EU-28 and Russia**

Development and implementation of innovations, especially technological ones, are concentrated primarily in the sphere of industrial production. Innovative activities of business are largely determined by overall level of business development, by its financial and production capabilities. Taking into account existing objective to increase the role of small and medium-sized businesses in the innovative development of the Russian economy, it makes sense to investigate the main characteristics of the state of small and medium-sized enterprises in various sectors of industrial production.

As compared to the developed countries, the contribution of small and medium-sized enterprises to the Russian economy remains rather low. If in the EU countries small and medium business provides up to 60-70% of jobs and 50-70% of gross added value (Table 1), in Russia the share of employed in small and medium-sized enterprises in the total number of employees is less than 25%, and the share of the small and medium – sized businesses in GDP is 20-21%<sup>3</sup>.

The manufacturing sector accounted for 20% of SME value added and 19-20 % SME employment in 2015-2016 in EU-28. In manufacturing the contribution of SMEs in value added was 42-44% in 2015-2016, in employment – 58-59% in the EU countries<sup>4</sup>. Annual growth in SME manufacturing value added was positive: from 0,4% in 2013 till 4,5% in 2015. SME manufacturing employment growth was not high: 0,5-0,7% in 2014-2015, but in the ‘high tech’ sector 2% in 2015 (exceeding annual growth across all SME sectors)<sup>5</sup>.

In 2014, the level of innovation activity of small industrial enterprises varied across the EU-28 from 10.8% in Romania to 66.2% in Germany. In Sweden, Finland, Portugal, and Austria, small innovative industrial enterprises provided jobs for more than half of the employed small businesses of the corresponding economic activities, in Belgium and Germany – almost two-thirds of the employed.

<sup>2</sup> Dubrova T.A., Esenin M.A. et al. *The methodology for monitoring of small entrepreneurship development in Russia*: Monograph/ Publishing and Trading Corporation «Dashkov & C», Moscow, 2015

<sup>3</sup> Dubrova T., Esenin M. *Features of innovative development of small business in Russia* // in: Selected aspects of management of contemporary enterprises. Monograph. /Edited by: A. Barcik, H. Howaniec, Z. Malara. – University of Bielsko – Biala / ATH. – 2016. – p. 167-184

<sup>4</sup> *Annual Report Annual Report on European SMEs, 2016/2017. – Focus on self-employment.* – November 2017/ SME Performance Review 2016/2017

<sup>5</sup> *Annual Report on European SMEs 2015/2016 – SME recovery countries.* /SME Performance Review 2015/2016

Table 1. The distribution of SMEs by size classes (in the non-financial business sector), EU-28, 2016

Size classes	Number of enterprises (in % of total)	Employment (in % of total employment)	Value added (in % of total value added)
Micro	93,0	29,8	20,9
Small	5,8	20,0	17,8
Medium	0,9	16,7	18,2

Source: Annual Report Annual Report on European SMEs, 2016/2017. – Focus on self-employment. – November 2017/ SME Performance Review 2016/2017.– p. 187.

In Bulgaria, Estonia, Latvia and Hungary in 2014, the turnover of small innovative industrial enterprises accounted for more than 25% of the total turnover of small industrial enterprises, about 50% in Spain, Croatia, Lithuania, Denmark, more than 70% in Great Britain, Ireland, Belgium, Austria, Portugal<sup>6</sup>.

In Russia the share of SMEs, which act in industrial production, in total number of legal entities, which are subjects of small and medium-sized business, remains quite low also during 2010-2015, and slightly exceeds 10%. The above indicator grows in passing to the groups of enterprises with larger size. So, in 2015, the share of industrial enterprises was 9.8% in the microbusiness segment, 16.6% in small businesses segment (excluding microenterprises), and 26.4% for medium-sized businesses segment. The low share of industrial enterprises results from existing structure Russian SME sector, which is characterized by high degree of inertia<sup>7</sup>.

The majority of medium-, small- and microenterprises of industrial sphere comprises enterprises of manufacturing (Table 2). The share of manufacturing enterprises in the total number of SMEs in industrial production comprises 90.3% in 2015<sup>8</sup>.

The data of Federal statistical observation provide the option to estimate both the number of registered SMEs, and also the number of enterprises which carried out their activity and which suspended their activities in 2015. The highest share of SMEs, operating in 2015, was observed in manufacturing and comprised 67.8%, the lowest share of the above SMEs was observed in mining and quarrying (less than a half, only 44.2%). The share of companies, operating in 2015, increased with the increase of the size group of enterprises.

This characteristic can be considered as an indirect indicator of the complexity of doing small and medium-sized businesses running during the analyzed period, with the account the scale of companies and the scope of their activities. In addition, this indicator reflects the difficulties associated with the liquidation of enterprises in Russia.

<sup>6</sup> The Community Innovation Survey (CIS), 2014

<sup>7</sup> Esenin M.A. *Analysis of the innovation activities of small enterprises in Russia* // Economy & Entrepreneurship, 2013,12, part 3. – p. 414-422

<sup>8</sup> Observation of the activities of small and medium-sized business for 2015. Federal State Statistics Service// URL: [http://www.gks.ru/free\\_doc/new\\_site/business/prom/splosh.html](http://www.gks.ru/free_doc/new_site/business/prom/splosh.html)

Table 2. Main indicators of activity of small and medium-sized industrial enterprises in 2015

<b>Indicators</b>	<b>Mining and Quarrying</b>	<b>Manufacturing</b>	<b>Electricity, gas and water supply</b>
Number of small and medium-sized enterprises (at the end of the year), units	8 908	214 964	14 130
of which:			
small enterprises (including micro-enterprises)	8 630	210 552	13 727
medium-sized enterprises	278	4 412	403
Average number of employees (external part-time employees excluded) at small and medium-sized enterprises, thousand persons	93,4	2197,1	195,3
of which:			
small enterprises (including micro-enterprises)	55,1	1606,1	143,3
medium-sized enterprises	38,3	591,0	52,0
Fixed capital investments of small and medium-sized enterprises, million rubles	53,7	158,6	16,1
of which:			
small enterprises (including micro-enterprises)	12,2	86,8	10,8
medium-sized enterprises	41,5	71,8	5,3

Source: Federal State Statistics Service -URL: [www.gks.ru](http://www.gks.ru)

In addition, this indicator reflects the difficulties associated with the liquidation of enterprises in Russia. According to the «Doing business 2018» survey, Russia ranked 35 position among 190 countries in the world<sup>9</sup>.

Industrial production is characterized by a higher share of the staff number of employed at the SME sector as compared to the share of the number of enterprises. This results from the fact, that the average size of industrial enterprises, estimated by the staff number per enterprise, is above the average value for the SME sector as a whole. In 2014 the average size of enterprises in the segment of small business (including micro-business) was 6 people, while in manufacturing average size was 8 in Russia.

The excess of the average size of enterprises in the manufacturing sector in the segment of medium-sized enterprises was more significant: 145 workers against 121 workers for medium-sized enterprises as a whole.

In 2015, the average staff number in industrial production comprised 12.1% of microenterprises staff, 21.0% of small-sized enterprises staff, and 33.4% of medium-sized enterprises staff, respectively. The largest contribution to the average staff number of industrial workers in the SME sector is made by manufacturing, which is more than 85% for all size groups of enterprises.

<sup>9</sup> Doing Business 2018. Reforming to Create Jobs/2018 International Bank for Reconstruction and Development. The World Bank



Investments in the fixed capital of small and medium-sized industrial enterprises in 2015 amounted to 16.9% of the total investments in the fixed capital of small and medium-sized businesses, including the contribution of enterprises of manufacturing, which comprises 11.8%.

According to the data of sample surveys of investment activity of small industrial enterprises (without micro-enterprises), which were carried out by ROSSTAT in 2010 – 2014, the main factor, limiting investment activity, is the lack of own financial resources. During the period under review, more than a half of the enterprises indicated this problem. Further on, such factors as uncertainty of the economic situation in the country, high percentage of commercial credit, insufficient demand for products, were indicated as predominant<sup>10</sup>. In general, the assessment of the factors, which limit investment activity, testifies to the stability of the urgent problems faced by small industrial enterprises.

The major objective of investing in the fixed capital of small industrial enterprises consists in the replacement of the deteriorated equipment and machinery. The second most common objective of investment consists in automation and mechanization of the production process. These priority investment objectives may give evidence of the poor state of production capacity, of the lack of modern and high-tech equipment. The introduction of new production technologies, which can be attributed to process technologies, is the investment objective only for 5% of small industrial enterprises<sup>11</sup>.

Support for small industrial enterprises could expand its financial and investment opportunities, could promote production modernization and introduction of new technologies and development of innovative small enterprises.

### **Multivariate classification of Russian regions by the characteristics of small industrial enterprises innovative activity**

The identification of homogeneous regional segments is aimed at the adoption of targeted support measures and the promotion of small industrial enterprises innovative activity in Russia. The importance of this task is determined by substantial territorial differences of Russia and the demand on increase of small business innovative activity, raising its role in sectoral diversification. Defined regional clusters differ by the level of small industrial enterprises innovative activity, by the features of resource base to implement technological innovations as well as in the structure of total expenditures by type of innovation activity. The current research is based on the official data of Federal State Statistics Service. The statistical observation is aimed to collect the information about technological innovations of small industrial enterprises.

The formed dimensional space includes relative indicators for interregional comparisons. There are the following characteristics of small industrial enterprises innovative activity and effectiveness of innovative activities: the share of small enterprises, implemented technological innovations, in the total number of surveyed small enterprises ( $x_1$ , %); the share of innovation products, of works and services in the total volume of the shipped goods, works and services, produced by small enterprises ( $x_2$ , %).

The indicators of the expenditures of technological innovations by type of innovative activity are also included in the analysis: the expenditures for research and development of new products, of services and methods of production, of new production processes ( $x_3$ , %); the expenditures for the purchase of machinery and equipment ( $x_4$ , %).

Moreover, the structure of the expenditures of technological innovations by funding sources is included in the set of analyzed characteristics: the expenditures financed by own resources ( $x_5$ , %); the expenditures financed by credits, loans, venture funds ( $x_6$ , %).

<sup>10</sup> Small and medium entrepreneurship in Russia. Statistical Handbook. Rosstat, Moscow, 2015, 96 p.

<sup>11</sup> Small and medium entrepreneurship in Russia. Statistical Handbook. Rosstat, Moscow, 2015, 96 p.

The analysis is conducted on Rosstat data (2015) for 66 Russian regions due to the lack of completed information for some regions. Before multidimensional classification with Euclidean distance principal component analysis is applied to move to orthogonal dimensional space. This allows halving the dimension of the task with a slight decline of informational content: the defined factors  $F_1$ - $F_3$  explain more than 83% of total dispersion.

The factor  $F_1$  has high values of loadings (with different signs) on  $x_3$  and  $x_6$ , representing the structure of the expenditures on technological innovations by funding sources. The higher is the value of the factor  $F_1$ , the greater is the role of external sources of funding (credits, loans, and venture funds) in the formation of total expenditures on technological innovations of small industrial enterprises. The factor  $F_2$  can be considered as the characteristic of the distribution of total expenditures on technological innovations by type of innovative activity because of its strong correlation with indicators  $x_3$ - $x_4$ . The signs of factor loadings indicate that with increasing values of the factor  $F_2$  the share of expenditures for research and development of new products, of services and methods of production raises and, in contrast, the share of expenditures for the purchase of machinery and equipment declines. Finally, the factor  $F_3$  represents the general level of small industrial enterprises innovative activity development in Russian regions because of the high positive values of factor loadings on indicators  $x_1$  and  $x_2$ . Ward's method with squared Euclidean distance of the described factors allows defining three clusters with distinctive features of innovative activity development of small industrial enterprises.

The most numerous is the first cluster including a half of analyzed Russian regions. In this cluster the average value of the variable  $x_2$  (the share of shipped innovation products, of works and services in the total volume of the shipped goods, works and services, produced by small enterprises) is closed to the sample average and exceeds this value of the second backward cluster by 2.7 times. The highest level of this indicator is observed in the third leading cluster (the exceeding of the sample average by 1.6 times). In the second backward (problematic) cluster this value does not reach 1%.

The figure 1 shows the gap between the second cluster including 18 Russian regions and two others clusters by the average value of the variable  $x_1$  (the share of small enterprises, implemented technological innovations, in the total number of surveyed small enterprises).

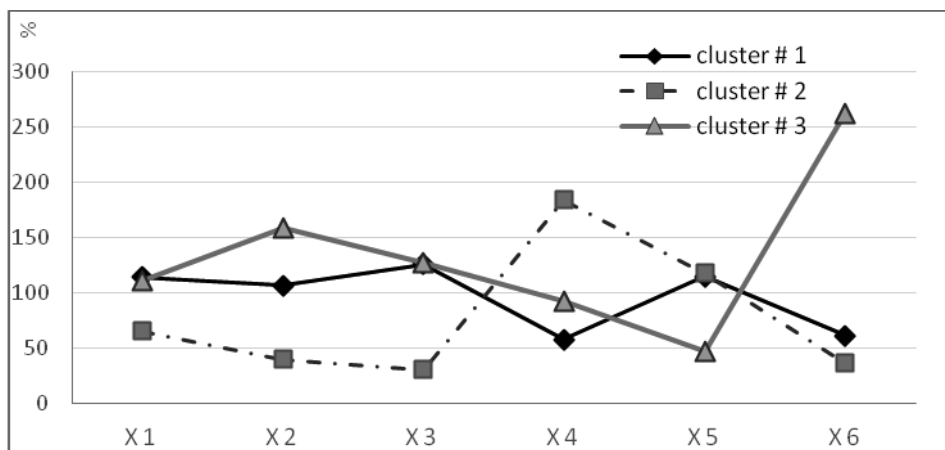
Thus, the analysis of the indicators  $x_1$  and  $x_2$  shows obstacles and constraints for small enterprises innovative activity in the second cluster with its most successful development in the regions of the third cluster.

In general, low values of the variables  $x_1$  and  $x_2$  are observed in 2015. The share of small enterprises, implemented technological innovations, in the total number of surveyed small enterprises is equaled to 4,5% (is lower by 0,6 percentage points than in 2011). The share of shipped innovation products, of works and services in the total volume of the shipped goods, works and services, produced by small enterprises is only 1,6%. The small enterprises of manufacturing sector demonstrate the highest values of these characteristics (4,8% and 1,7% correspondingly).

The values of innovative activity characteristics vary depending on type of economic activity and the technological level of production (Table 3), size groups of enterprises, regional features. Substantial differences of the defined clusters of regions stand out in the distribution of the expenditures on technological innovations by type of innovative activity.

Close averages of the share of the expenditures for research and development of new products, of services and methods of production, of new production processes in total expenditures for technological innovation activity ( $x_3$ ) are typical for the first and the third clusters. These values exceed by 1.3 times the sample average and more than by 4 times the average of the second cluster. The main share of the expenditures on technological innovations in the regions of the second cluster is spent on the purchase of machinery and equipment that is explained by a shortage of modern technics, high depreciation of existing equipment.

Figure 1. The ratio of the average variables values in the clusters to the corresponding average sampling values



Source: own research

Table 3. Innovative activity indicators of small industrial enterprises in Russia

Indicators	2013	2015
The share of small enterprises, implemented technological innovations, %	4,8	4,5
by sector:		
– mining and quarrying	3,1	2,8
– manufacturing	5,1	4,8
– electricity, gas and water supply	2,2	2,2
The share of small enterprises, implemented technological innovations in high-technology and medium-high technology types of economic activity,%	8,6	7,3
by type of economic activity:		
– high-technology	16,3	15,0
– medium-high-technology	6,7	5,4

Source: Federal State Statistics Service

The feature of innovative processes in Russia is their development not through research and development produced by owns but through the purchase of machinery and equipment. In 2015, for industrial organizations (without small enterprises) the share of expenditures for the purchase of machinery and equipment was more than 48% while expenditures for research and development were less than 23% of the total expenditures on technological innovations<sup>12</sup>.

<sup>12</sup> *Indicators of Innovation in the Russian Federation: 2017* : Data Book/ National Research University Higher School of Economics. – Moscow: HSE, 2017. – 328 p

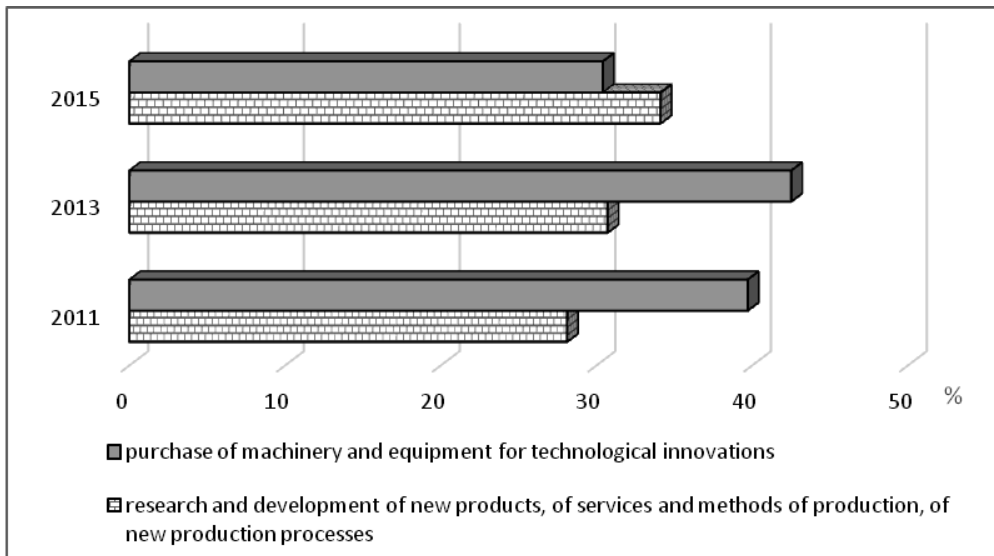
In the sector of small industrial enterprises the share of the expenditures for research and development increased in 2013 and 2015 exceeding the share of the expenditures for the purchase of machinery and equipment in 2015 (unlike 2011 and 2013) (Figure 2).

The lowest share of the expenditures for the purchase of machinery and equipment is in the regions of the first cluster that could be explained by its lower depreciation, the presence of modern equipment in small industrial enterprises.

In the regions of the second backward (problematic) cluster the average value of the share of expenditures for research and development was only 8% of the total expenditures on technological innovations whereas the purchase of machinery and equipment exceeded 70% of the total expenditures on technological innovations.

This indicates the difference of the distributions of expenditures by type of innovative activity in the regions of the second cluster and Russia as a whole.

Figure 2. The share of expenditures by type of innovative activity in total expenditures on technological innovations of small industrial enterprises in Russia, %



Source: Federal State Statistics Service

Many empirical studies confirmed the time stability of the main constraints to technological innovations development in Russia. According to<sup>13</sup>, in the period of 2013 – 2015, the most serious obstacles were related to the lack of own funds and the high expenditures of innovations. At the same time, the main funding source of the expenditures on technological innovations for small industrial enterprises is their own funds (67,8% in 2015 vs. 58% in 2013) (Figure 3). The increasing of the share of own funds was with the decline of the share of credits and loans (from 25,2% to 14,4%) and budget funds (from 10,1% to 8,4%). These structural changes in 2015 were caused by external environment, economic crisis.

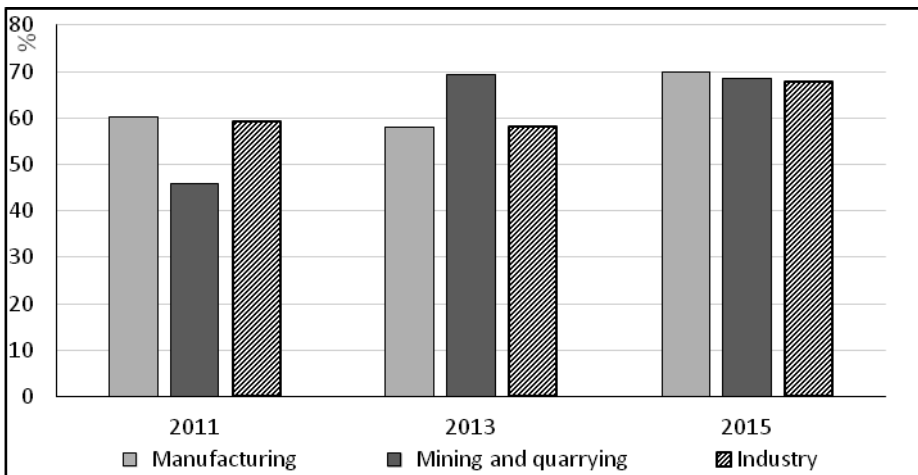
<sup>13</sup> *Indicators of Innovation in the Russian Federation: 2017* : Data Book/ National Research University Higher School of Economics. – Moscow: HSE, 2017. – 328 p.

At the same time, the defined clusters substantially differ by the share of the main sources of the expenditures on technological innovations. In the second backward cluster own funds of small enterprises equal almost 4/5 of the total expenditures on technological innovations with the lowest (among other clusters) share of budget funds and not high share of credits and loans that indicates on its weak access for small enterprises. For all observed small enterprises the share of preferential credits and loans is low (2,7% in 2015).

In the first cluster the share of budget funds is higher than in the second but the share of small enterprises own sources is also substantial because the mechanism of credits and loans, venture funds does not completely work also in this cluster. The share of these funding sources is significant only in the regions of the third leading cluster that leads to the decline of small enterprises own funds contribution to the total expenditures on technological innovations with substantial support of small enterprises of this cluster by the budget funds.

Thus, in the regions of the first cluster the share of small enterprises implemented technological innovations in the total number of surveyed small enterprises is the highest, the share of shipped innovation products, of works and services in the total volume of the shipped goods, works and services, produced by small enterprises is closed to the sample average. The share of the expenditures for the purchase of machinery and equipment is lower in this cluster that could be explained by modern technics in the enterprises. However, weak access to credit sources inhibits further innovative activity development, resource basis for innovative activity is mainly formed by own enterprises funds.

Figure 3. The share of own funds in total expenditures on technological innovations for small industrial enterprises, %



Source: Federal State Statistics Service

The regions of third cluster lead by the share of shipped innovation products, of works and services in the total volume of the shipped goods, works and services, produced by small enterprises, have high innovative activity of small industrial enterprises.

It can be seen by the exceeding of the average value of the factor  $F_3$  on the corresponding values of other clusters. In the third cluster the share of the expenditures for research and development of new products, of services and methods of production, of new production processes in the total expenditures on technological innovations is the most substantial. The main difference of innovative activity development in the regions of this cluster is active using of the credit mechanism by small enterprises.

In the regions of the second cluster with the lowest average values of the factors  $F_1$ - $F_3$ , all analyzed characteristics indicate serious constraints to small industrial enterprises innovative activity development.

## Conclusion

Contribution of small and medium-sized enterprises to the Russian economy remains insufficient. The main barriers to investment activity of small enterprises are financial constraints as follows: lack of own funds, difficulties in obtaining loans, as well as high economic and investment risks.

The results of the multidimensional classification of subjects of the Russian Federation, which was carried out in the course of this research, confirmed the existence of a significant regional heterogeneity in the development of innovative activity of small industrial enterprises. Three regional clusters are distinguished, which differ in the characteristics and in the efficiency of innovation activity, the specifics of the formation of its resource base, and also in the structure of the distribution of costs for technological innovation (by types of innovation activity). This indicates the need to implement targeted measures to support and stimulate the innovative activity of small industrial enterprises, taking into account not only the sector specificity, but also the existing regional heterogeneity. When developing measures to support and stimulate innovative activity of small business, it is necessary to take into account the existing territorial differentiation, paying attention to the successful experience of the regions of the first and third clusters and to the removal of existing barriers in the regions of the second “problem” cluster.

The analysis indicates a lack of financial support for the development of innovative activities of small industrial enterprises, the need to increase the availability of credit and loans, reveals the role of venture financing and shows the necessity for improving and searching for new forms of public-private partnership.

## Bibliography

1. *Annual Report on European SMEs 2015/2016 SME recovery countries*. SME Performance Review 2015/2016.
2. *Annual Report on European SMEs, 2016/2017*. Focus on self-employment. November 2017. SME Performance Review 2016/2017.
3. *Community Innovation Survey (CIS), 2014*. <http://ec.europa.eu/eurostat/web/science-technology-innovation/data/database>
4. *Doing Business 2018. Reforming to Create Jobs/2018* International Bank for Reconstruction and Development. The World Bank.
5. Dubrova T.A., Esenin M.A. et al. *The methodology for monitoring of small entrepreneurship development in Russia*: Monograph/ Publishing and Trading Corporation «Dashkov & C», Moscow, 2015.
6. Dubrova T., Esenin M. *Features of innovative development of small business in Russia // Selected aspects of management of contemporary enterprises*. Monograph. /Edited by: A. Barcik, H. Howaniec, Z. Malara. – University of Bielsko – Biala / ATH. – 2016, p. 167-184
7. Esenin M.A. *Analysis of the innovation activities of small enterprises in Russia // Economy & Entrepreneurship*, 2013,12, part 3, p. 414-422
8. *Indicators of Innovation in the Russian Federation 2017*. Data Book, National Research University Higher School of Economics. Moscow, HSE, 2017.
9. *Small and medium entrepreneurship in Russia*. Statistical Handbook. Rosstat, Moscow, 2015.

10. *Observation of the activities of small and medium-sized business for 2015*. Federal State Statistics Service [http://www.gks.ru/free\\_doc/new\\_site/business/prom/splosh.html](http://www.gks.ru/free_doc/new_site/business/prom/splosh.html)
11. *Doing Business 2017. Equal opportunity for all* <http://www.doingbusiness.org/reports/global-reports/doing-business-2017>
12. *Doing Business 2017. Equal opportunity for all* <http://www.doingbusiness.org/reports/global-reports/doing-business-2017>
13. Federal State Statistics Service: <http://www.gks.ru>
14. *Strategy for the Development of Small and Medium-sized Entrepreneurship in the Russian Federation for the period until 2030*, [adopted on 02.06.2016]:<http://government.ru/docs/23354/>





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# INNOVATIVE MANAGEMENT OF THE UNITS OF TERRITORIAL SELF-GOVERNMENT AS EXEMPLIFIED BY THE TOWN AND COMMUNE OF WIELICZKA

## *Summary*

*Self-governmental administration is a part of the public sector, and, as such, is governed by these same correlations, as far as the purposefulness of its functioning, connections with society and economy, and also the requirement of the assessment of the effectiveness of conducted activities, are concerned. For that very reason, management in self-governmental administration in a natural manner makes it compulsory for authorities to adopt a professional approach, together with the application of the appropriate methods and instruments, and, in addition to that, ensuring the precision of standards and indicators measuring effectiveness. In the democratic systems of management at the local and regional levels, the active co-participation of society in the decision-making processes is of significance. Only in such a case is it possible to reach consensus relevant to the stipulation and implementation of the principle of development, and also the formation of the conditions of the life of the population in accordance with its expectations. What is also of significance, is the role of controlling mechanisms serving the objective of the evaluation of a conducted activity.*

\* \* \*

## **Introduction**

In accordance with the provisions set forth in the relevant acts, communal self-government in Poland is an independent economic subject, which has at its disposal a certain scope of freedom in deciding about its own affairs, the road of its development, shared property, and also the completion of public tasks. The foundation for the completion of them are self-governmental authorities and administration, and also own property and financial means. As a self-governmental community, a commune is the fundamental organizational form of local public life in Poland. The fundamental task of a commune is satisfying the collective needs of a community. To express it in other words, what is referred to here, is

creating the best possible environment for the life of population. The degree of fulfilling this task is, to a significant degree, dependent upon the scale and the pace of local development<sup>1</sup>.

As it can be concluded from the experiences with the functioning of the units of territorial self-government, communes are the organizations which are complex and difficult to manage, and which function in rapidly-changing, and frequently impossible to predict, conditions connected with their environment, which determine the external conditions in the form of a set of the opportunities of, and threats to, the further development of communes. It is by means of nothing else, but the very professional management, that it is possible to increase their ability to adapt to those conditions. On the other hand, it is indispensable to adopt a comprehensive, and an integrated, approach to solving the developmental problems of communes. For that very reason, to fulfill the needs of management, it is important to research those problems, their character, and also the strength of connections and mutual interactions well. Therefore, management is, on the one hand, the decision-making process inside the structures of communal self-government, whereas, on the other hand, an executive activity closely connected with the environment<sup>2</sup>.

The objective of this paper is to make an attempt to outline the significance and scope of innovations in territorial self-government in the context of the provision of public services. The content of the economics of territorial self-government is satisfying the collective needs of population by means of the process of the provision of services. It ought to be emphasised that it includes as well production activities (for instance, the production of water, collecting waste etc.), but the final phase of the process is the provision of communal services.

### Notion of innovations

The discussion relevant to the issues of innovations in territorial self-government requires that the notion of innovations be explained. The term 'innovation', regardless of the abundance of the literature, is still one in the need of a conclusive definition.

It is adopted as a presumption that the notion of 'innovation' was introduced by J. Schumpeter<sup>3</sup>, claiming that economic development is under a much stronger influence of innovativeness than of capital. He understood innovativeness as introducing a new product on the market, taking advantage of a new method of production, finding a new outlet market for already existing products, the acquisition and development of the new sources of raw materials, or taking advantage of the new kind of raw materials, and, in addition to that, introducing organizational changes in an enterprise.

One of the groundbreaking, and still relevant, opinions of J. Schumpeter relevant to approach to innovations is 'it is only the first application of an invention that contains an element of originality, requires the involvement of the capabilities of particularly-talented individuals, and accepting a high risk. Imitations are, in turn, nothing else, but copying'<sup>4</sup>.

The evolution of the notion of innovation is connected with transition from the economy based upon industrial production to the knowledge-based economy, and it resulted in broadening the definition of innovation. The definition of innovations is a broad one, and it takes under consideration both changes relevant to technologies, as well the other ones (Table 1).

<sup>1</sup> C. Szydłowski, *Metody zarządzania organizacjami administracji publicznej*, [in:] D. Stawasz, D. Drzazga, C. Szydłowski, *Wybrane aspekty sprawności zarządzania w administracji publicznej*, Wydawnictwo University of Łódź, Łódź 2011, p. 66.

<sup>2</sup> *Ibidem*

<sup>3</sup> J. Schumpeter, *Teoria rozwoju gospodarczego*, PWN, Warszawa 1960, p.53.

<sup>4</sup> K. Koziół Nadolna, *Modele zarządzania innowacjami w XXI wieku*, <http://janek.uek.krakow.pl/~kzko/4.1.pdf> [accessed on: 15.11.2017].

Table 1. More important definitions of innovations

Author	Opinions about/definitions of innovations
J. Schumpeter <sup>5</sup>	Introduction of a new solution in practical applications. The subject-matter of his considerations are, first and foremost, technical innovations, and their influence upon economy. All the popularizations of innovations constitute a separate kind of changes, referred to as imitations. Schumpeter is the author of the conception of so-called creative destruction, which consists in the constant destruction of old structures, and the never-ending creation of the new ones, which are more and more effective.
P.F. Drucker <sup>6</sup>	Innovation is a conscious and beneficial change resulting from needs, or from the methodical observation of the external environment. This is a deliberate and concentrated work which requires knowledge and resourcefulness. A stimulus for developing an innovation does not have to be constituted by a technical factor, but may rather be the ordinary observation of the market.
Ch. Freeman <sup>7</sup>	Innovation is the first commercial application of a new product, a process or a device.
A. Pomykalski <sup>8</sup>	Innovation is the entire scope of activities connected with developing an idea, creating an invention, and subsequently implementing a new or improved product or process.
W. Janasz, K. Koziol <sup>9</sup>	Term 'innovations' is understood broadly, and it refers to all the spheres of life, commencing with new solutions relevant to economic or social life, and including new intellectual or cultural trends.
W. Janasz, K. Koziol-Nadolna <sup>10</sup>	Innovation is a change in the methods of production, and in products, based upon a new, or hitherto not applied, knowledge.
Central Statistical Office <sup>11</sup>	Innovation – ,implementing a new, or a significantly improved, product (article, services) or a process, a new organizational method, a new method of conducting marketing activities in business practice, the organization of a workplace, or a new method in relations with the environment. A new, or significantly improved, product is implemented when it has been launched on the market. New processes, methods of organization or methods of conducting marketing activities are implemented when they commence to actually be applied in the activity of an enterprise' .
In accordance with <i>Oslo Manual</i> <sup>12</sup>	,innovation takes place when a new, or an improved, product is introduced by a company on the market, or an improved process is applied in the process of production in an enterprise' .

Source: own elaboration

<sup>5</sup> J. A. Schumpeter, *Teoria rozwoju gospodarczego*, Wydawnictwo PWE, Warszawa 1960, p. 131.

<sup>6</sup> P.F. Drucker, *Innowacje i przedsiębiorczość. Praktyka i zasady*. Wydawnictwo PWE, Warszawa 1962, p. 14.

<sup>7</sup> Ch. Freeman, *The Economics of Industrial Innovation*, F. Pinter, London, 1982, p. 7.

<sup>8</sup> A. Pomykalski, *Zarządzanie innowacjami*. PWN, Warszawa 2001, p. 17.

<sup>9</sup> W. Janasz, K. Koziol, *Determinanty działalności innowacyjnej przedsiębiorstw*, Wydawnictwo PWE, Warszawa, 2007, p. 14.

<sup>10</sup> W. Janasz, K. Koziol-Nadolna, *Innowacje w organizacji*. Wydawnictwo PWE, Warszawa 2011, p. 56.

<sup>11</sup> *Działalność innowacyjna przedsiębiorstw w latach 2009-2011*. Central Statistical Office. Warszawa 2012.

<sup>12</sup> The methodology of research into innovations shared by the countries of the European Union and applied in the research conducted by the Eurostat in collaboration with the OECD.

An innovation is each and every change in an enterprise which has been made in order to obtain a new product, a new service, or, alternatively, a new quality. This change may be a radical one, resulting in the development of an entirely new product, but, as well as that, a fragment-related one, bringing about perfecting a product. The term 'innovation' may be applied at the level of an enterprise, at the level of a country, at the level of the world, setting ever higher requirements in reference to this at which level a given change is a novelty. For that reason as well, the definition of this word is a very broad one. Innovative phenomena are dynamic. It was all commenced from production and processual innovations, but, currently, there are also, for instance, organizational innovations that are referred to. Any and all attempts to make the notion more precise, namely stating that certain technologies are innovative, and certain are not, and that refers to applying labels, is a little bit incompatible with the very idea of innovation. Innovation is a change.

While conducting the analysis of the issues of the proposed definitions, four kinds of innovations may be differentiated (Table 2):

Table 2. Kind of innovations implemented by an enterprise

<b>Kind of innovations</b>	<b>Content-related scope</b>
Product innovations	These are relevant to goods or services. They consist in the introduction of a new product on the market, or in significantly perfecting an already existing product, within the scope of its features, or, alternatively, applications. These innovations may be the result of the application of new knowledge or technologies, or, alternatively, of the new applications or the combination of existing knowledge and technologies. The effect of product innovations is broadening the assortment by means of the addition of new products and services, making it possible for a company to enter the new markets.
Processual (technological) innovations	They consist in the implementation of new, or in the implementation of significant improvements in the methods of manufacturing and distribution applied by an organization, and supporting activity within the scope of the articles or services. They make it possible to render the effectiveness of production better and increase it, simultaneously reducing the costs of it, improving the conditions of work or the influence exerted by this activity upon the environment. The term 'methods of manufacturing' refers to techniques, devices and software applied for the production of articles or services. In turn, the methods of delivery (distribution) are relevant to the logistics of enterprise, and encompass the devices, software and techniques applied for the objective of acquiring the means of production, allocating resources within an enterprise, or the provision of final products.
Organizational innovations	This term refers to implementing the new methods of organization within the principles of activity adopted by an enterprise, in the organization of a workplace, or in relation with the environment, which have hitherto not been applied in a given enterprise, and which are to render the activity of it more efficient. New methods within the scope of the adopted principles of action consist in the implementation of the new methods of organising routine activities and procedures regulating the work of an enterprise. These are, for instance, the management of deliveries, the thorough transition of processes in an enterprise (business reengineering), the systems of lean production, and quality management systems. Innovations implemented in the organization of a workplace consist in implementing the new methods of delegating tasks and rendering the decision-making processes amongst employees more effective, for instance, implementing, for the first time ever, a new system of responsibility of employees, team work, decentralising,

Kind of innovations	Content-related scope
Organizational innovations	the integration or disintegration of department, training systems etc. In turn, relations with the environment, to express it in other words, are relations with other enterprises, or public institutions, for instance taking advantage, for the first time ever, of such forms, like alliances, companies, so-called outsourcing (taking over the performance of certain tasks by specialised external companies or sub-contracting etc.).
Marketing innovations	Marketing innovations include: – significant changes in the design, construction or packaging of articles or services (with the exclusion of changes in the functionality of a product or the usefulness of it – these are included into product innovations), – the new media or techniques of the promotion of products, for instance, the first application of the new medium of advertising, a new image, introducing loyalty cards etc., – new methods within the scope of the distribution of products or the channels of sale, for instance, the introduction, for the first time ever, of a system of franchising or licences for the distribution of products, direct sale, exclusive retail sale, and the new conception of the exposition of products, – new methods of pricing articles and services. <sup>13</sup>
Radical innovations	‘Qualitatively new innovations, which bring about the formation of the new market of goods ‘pushing out’ from economy a different market of goods, and even of the downrightly different markets of goods. This kind of an innovation is, in the majority of cases, the result of scientific research, which frequently has a fundamental character. This research results in the formation of an entirely new product or the process of production on the international market, but also generates complementary innovations. To provide an instance, a radical innovation was the development and introduction the cellular phone on the market. Increasing the scope and possibilities of applying it, to provide an instance, sending text messages (SMS), taking photographs, the introduction of different types of cellular phones for different groups of consumers (for instance, for elderly citizens) are innovations which are, in relation to the cellular phone, complementary’ <sup>14</sup> .
Incremental innovations in accordance with A. Wziętek-Kubiak, E. Balcerowicz Complementary, broadening innovations	‘Their essence is broadening (and, in this meaning of this word, complementing) possibilities of the application of an innovation. Complementary innovations contain a broad gamut of possibilities of changes, modernization and rendering a product and a technological process more efficient. They encompass both activities bringing about copying products manufactured (by the competition), and activities bringing about modifications (both small and the significant alike ones) in the products existing on the market alike. Simultaneously, the borders of the innovations of this type are not determined with precision, which is caused by the fact that complementary innovations may encompass quite a different, in the aspect of the level of advancement, knowledge. The reason for that fact is they encompass not only very diverse, from the above-mentioned point of view, scientific knowledge, including fundamental research as well, but also so-called knowledge contained in so-called applied and developmental research’ <sup>15</sup> .

Source: own elaboration

<sup>13</sup> *Działalność innowacyjna przedsiębiorstw w latach 2009-2011*. Central Statistical Office. Warszawa 2012.

<sup>14</sup> A. Wziętek-Kubiak, E. Balcerowicz, *Determinanty rozwoju innowacyjności firmy w kontekście poziomu wykształcenia pracowników*, expert assesment prepared for POLISH AGENCY FOR ENTERPRISE DEVELOPMENT, Warszawa 2009, p. 15.

<sup>15</sup> *Ibidem*, p. 15.

## Innovations in territorial self-government

An ever larger number of authors are making efforts to shed more light upon the essence of and innovation in the public sector, however, there is no agreement in the aspect of its contents. Most frequently, they indicate the implementation of a new product or a service, process, a new strategy, or changes in an organization or in relations with the environment<sup>16</sup>. In Table 3, a collation of the frequently quoted definitions of innovations in the public sector is provided.

Table 3. Definitions of an innovation in the self-governmental sector

Authors	Definitions
OECD	The implementation by an organization in the public sector new, or significantly improved, of products and instruments applied for their completion.
Green, Howells, Miles <sup>17</sup>	Making something new, and that term refers to the implementation of a new practice or a new process, to the development of a new product (goods or a service), or to adopting a new pattern of relations inside an organization or between organizations.
Albury, Morgan <sup>18</sup>	The development and implementation of new processes, products, services and methods of deliveries, which brings about a significant improvement in effectiveness, efficiency and quality.
Bloch <sup>19</sup>	New, or significant, changes in services and goods, operational processes, the methods of organization, or the methods of organization and communication with users.
Bason <sup>20</sup>	Process of the development of new ideas, and of transforming them into values for society.
Complex Challenges – Innovative Cities (CCIC)	Integration of new knowledge within a system dependent upon making public decisions, the objective of which is to improve existing, or to apply new, activities, services and practices the final and most noticeable result of which is improvement in public services and in the quality of life, or the principal aspects of it.
Consortium of Canadian Urban Institute and Małopolska School of Public Administration of the Cracow University of Economics in Cracow (MSPA) <sup>21</sup>	Perfecting the abilities of strategic planning and strategic management in self-governments, including project management, – implementing the modern principles of human resources management in public administration, – raising the level of the provision of public services by means of developing appropriate standards, the assessment of costs, and improving effectiveness, – perfecting organizational structures, and also procedures of action, of public administration in the perspective of achieving strategic objectives, – developing a model system of communication with population, social organizations and entrepreneurs, – identifying and eliminating obstacles in the legal environment, disturbing the functioning of self-governments.

Source: own elaboration.

<sup>16</sup> B. Mikołajczyk, *Innowacje w sektorze publicznym w krajach Unii Europejskiej (wyniki badań)*, Studia Ekonomiczne, Issue 173, *Innowacje w bankowości i finansach*, Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, Katowice 2013, p. 96.

<sup>17</sup> V. Petkovsek, S. Cankar, *Public sector innovation in the European Union and example of good practice*, Active Citizenship by Knowledge Management and Innovation, International Conference Zadar, Croatia, 19–21 June 2013, Zadar 2013, p. 28.

<sup>18</sup> L. Rivera, P. Simmonds, L. Roman, *Trends and challenges in public sector innovation in Europe*, Technopolis Group, October 2012, p. 78.

<sup>19</sup> C. Bloch, *Measuring Public Innovation in the Nordic Countries (MEPIN)*, Danish Center for Studies in Research and Research Policy, Aarhus 2011, p. 39.

<sup>20</sup> R. Walker, *Innovation type and diffusion: An empirical analysis of local government*, Public Administration, Volume 84, No. 2, 2006, pp. 311–335.

<sup>21</sup> *Zarządzanie w samorządzie terytorialnym*, eds. M. Zawicki, S. Mazur, J. Bober, Małopolska School of Public Administration of the Cracow University of Economics in Cracow, Kraków 2004.

## Strategies of the development of the UTSG (Units of Territorial Self-Government)

Taking advantage of one of the most popular definitions of strategic management<sup>22</sup>, it may be presumed in the aspect of the needs of management in the units of territorial self-government that strategic management involves a comprehensive and continuous process of management, the focus of which is to formulate and to implement effective strategies, which make it possible to perfectly adjust the units of territorial self-government to a turbulent environment. This is a method of approaching the opportunities and challenges arising for an organization. To express it in other words, strategic management is a decision-making process of the selection of objectives and the directions of development, and also the methods and manners of achieving them<sup>3</sup>. In the action meaning of this word, strategic management is the informational-decision making process (supported by the functions of management: planning, organising, motivating and controlling), the essential objective of which is to determine the crucial problems of the activity of an organization, its survival and development, whilst paying a particular attention to the influences exerted by the environment and the external developmental potentials<sup>23</sup>.

Strategic management is effectuated by means of the implementation of strategies in practice. Its feature is that these strategies are conducive to a better adjustment between organization and the environment of it, and achieving strategic objectives<sup>24</sup>. Management in the units of territorial self-government is the domain of self-governmental authorities. It is authorities which are entrusted with the task of the management of economic and social processes in such a way that the obtained result was an increase in the prosperity of local society. The instrument of stimulation and management ought to be a strategy of development, defined, most generally, as a plan of achieving the objectives of an organization.

In Poland, strategic management, formulating the presumptions of strategies, and undertaking activities matching the adopted strategic stipulations in the units of territorial self-government was commenced in the 1990s. In our times, the presumption that this is a commonly manner of approaching the formation of developmental processes in the dimension of self-governmental organizations may be adopted. 'Contemporary management is, in numerous aspects, different from the one observed in the past. The condition of a success is an informed strategy of development, and a long-term policy'<sup>25</sup>. Conceding that the above-quoted opinion has its merits, we may presume that strategic management does not involve the elements of an innovative approach, is commonly applied, and that the usefulness of it does not give rise to any reservations. Going on to look at the higher level of management in the units of territorial self-government, a conception of integrated management, based upon integrated planning, has been developed. Such an approach provides the chances of bringing about, in a long term, in the case of the units of territorial self-government, synergic effects, being the consequence of skillfully applying the resources of economic, social and spatial zones, and also a multi-facet collaboration of different stakeholders.

Integrated management indicates the indispensability of taking under consideration, at the stage of diagnosing and planning, the relations between different entities, organizations, institutions and social groups, involved in activity which has a diverse profile and significance for the creation of developmental processes. Integrated planning may be defined as the holistic process of determining objectives, and constructing pathways to those objectives, taking under consideration the relations between the most important participants in the 'game' of development. Moreover, this approach puts attention upon

<sup>22</sup> R.W. Griffin, *Podstawy zarządzania organizacjami*, Wydawnictwo Naukowe PWN, Warszawa 1996, p. 244.

<sup>23</sup> A. Stabryła, *Zarządzanie strategiczne w teorii i praktyce firmy*, Wydawnictwo Naukowe PWN, Warszawa-Kraków 2000, p. 11.

<sup>24</sup> R.W. Griffin, *Podstawy zarządzania ...*, op. cit., p. 245.

<sup>25</sup> J. Gościński, *Strategia rozwoju a zarządzanie*, Studia Prawno-Ekonomiczne, 1972, volume IX, p. 108.

the indispensability of collaboration and constructing partnership, which may assume the form of collaboration which is multi-level, involving numerous entities, and also numerous sectors<sup>26</sup>.

The most important features of integrated projects include:

- consolidation of different dimensions of development: social, economic and environmental,
- achieving common objectives shared by various entities,
- joining forces, and activities, of various entities (partnership),
- basing projects upon the readiness of each and every of partners to contribute (in the aspect of financial means to, tangible assets and competences),
- indispensability of regulating the relations within a partnership (organization of activities, timetable and budget)<sup>27</sup>.

Conception of 'smart city' is an innovative approach, directed towards making sure that cities (urban areas) are managed in a modern manner, with the application of state of the art technical means to, which are offered by the most recently developed technologies (including ICT), in accordance with the principles of ecology, whereas maintaining a tendency to economise on resources and obtaining expected effects. Innovative technologies, applied in the various zones of human activity, first and foremost, in that of IT and communication, make it possible to significantly increase the functionality of urban space, and reduce the costs of public services offered by the city. They are conducive to 'smart' management in the organizations of public sphere, even though it is obvious that it is people (authorities, societies, users, decision-makers) that determine the implementation of the principles of this conception.

The notion of 'smart city' is not defined and interpreted conclusively.

To provide an instance, N. Komninos and F. Florida<sup>28</sup> define a smart city as a territory which has a high level of ability to learn and to innovate, which is creative, possesses research-development institutions, tertiary education, digital infrastructure and communication technologies, and, in addition to that, the high level of the functionality of management. R. Hollands<sup>29</sup> indicates these approaches which place emphasis upon the existence of transportation and telecommunications infrastructure, taking advantage of information and communication technologies (ICT), or the role which is played by the digital media, creative industries and cultural initiatives.

For that very reason, a smart city is such a city which, in longer term, is characterised by balanced economic growth (high economic efficiency), and also offers a high quality of life, which promotes investments in human capital and social capital, takes advantage of the most modern techniques of ITC, and also technical-technological solutions, conditioning the quality of public services, and also the management of it in accordance with the principle of governance. Functioning and the development of cities will naturally be evolving in the direction of sustained development, and also the conception of 'smart city'.

Management by projects is finding application more and more frequently in solving problems significant for local communities. In this case, one ought to concentrate their attention upon appropriate preparation, and, subsequently, upon completing undertaken endeavours appropriately, of which a given project is composed of. The project itself is defined as a series of organizational and managerial activities the objective of which is to introduce changes. The essential aspect of it is determined character,

<sup>26</sup> Markowski T., *Funkcjonowanie gospodarki przestrzennej – założenia budowy modelu zintegrowanego planowania i zarządzania rozwojem*, [in:] *System planowania przestrzennego i jego rola w strategicznym zarządzaniu rozwojem kraju*, eds. T. Markowski, P. Zuber, Studia KPZK PAN, volume 134, Warszawa 2011, p. 24.

<sup>27</sup> *Ibidem*

<sup>28</sup> N. Komninos, *Intelligent Cities: Innovation, Knowledge Systems and Digital Spaces* Spon Press, Londyn 2002, pp. 1-2; R. Florida, *Cities and The Creative Class*, Routledge, London 2005, p. 84.

<sup>29</sup> R. Hollands, *Will the Smart City Please Stand Up? Intelligent, Progressive or Entrepreneurial?*, „City” 2008, Volume 12, No. 3.



which is composed of the intended result of the project, and that terms refers to fulfilling the qualitative requirements relevant to the results of it, most frequently we deal with a significant diversity of results and their assessment by stakeholders, scope, and that terms refers to a set of activities indispensable for achieving the intended results of an endeavour, the cost connected with indispensable outlays, and that terms refers to the costs connected with completing the endeavour, the time/deadline of the project in the entirety of it, and the particular tasks within in<sup>30</sup>.

**Living Lab** is a comparatively new approach applied in solving local problems. This idea refers to creating each and every kind of innovative solutions, whereas adopting the assumption that they ought to be developed in the conditions of their actual applications if the users are involved more than anyone else. These are involved in the process of the development of a given idea, developing a prototype, testing or validating it.

*Living Lab* is, for that very reason, a conception involving users in developing ideas and creating innovations in the particular phases of the process, and, therefore, discovering novelties, their prototyping and rendering them more efficient<sup>31</sup>.

**Citizen's budget** consists in the decentralization of a democratic system which we have been observing in Poland for more than 25 years; in addition to that, innovative, effective and functional management of public affairs requires in the practice of the functioning of the units of territorial self-government the involvement of local communities in the decision-making processes. Thanks to the active co-participation of local population in the processes of management, it is possible to complete endeavours in accordance with the expectations and needs of different groups of society, and, in addition to that, construct and strengthen social capital, bring about synergy effects, prevent the alienation of authorities from society. Social participation in the decision-making processes at the local level has its advocates and adversaries<sup>32</sup>.

Citizen's budget is most frequently developed by means of taking advantage of such tools as making oneself acquainted with priorities in the expenditure of public financial means to by the very members of a given community themselves, the election of budget delegates, representing local communities, technical support for the part of self-governmental authorities, organising assemblies in order to conduct debates and voting on priority expenses, and, subsequently, the implementation of ideas finding a direct reflection in the quality of the life of population<sup>33</sup>.

## **Strategies of management in the city and commune of Wieliczka – the Wielicka Special Economic Zone**

Wielicka Special Economic Zone is situated on the border of Cracow and Wieliczka. The essential part of this area is situated in the Commune of Wieliczka (Brzegi, Kokotów, Śledziejowice and Czarnochowice). The area of the zone is 255.4 hectares, and the area for development on the lands of the commune amounts to 185 hectares, and that refers to 72.4% (the measurement conducted by the Cracow Office of Development), and, on the area being the property of Cracow, the area of the zone amounts to, approximately, 70 hectares, and that refers to 27.6%. The zone is situated in the immediate neighbourhood of John Paul II 'Do not be Afraid' Center, and approximately 13 km from the motorway A4, making it possible to reach Germany or Ukraine directly.

<sup>30</sup> M. Trocki [ed.], *Nowoczesne zarządzanie projektami*, PWE, Warszawa 2012, p. 21.

<sup>31</sup> N. Lama, A. Oigin, *Innovation ECOSYSTEMS: Services Engineering & Living Labs a Dream to Drive Innovation?*, 2006.

<sup>32</sup> E.M. Boryczka, *Partycypacyjne instrumenty zarządzania jednostkami samorządu terytorialnego*, [in:] *Nowoczesne metody i narzędzia zarządzania rozwojem lokalnym i terytorialnym*, ed. A. Nowakowska, Wydawnictwo University of Łódź, Łódź 2015, p. 61.

<sup>33</sup> D. Stawasz, M. Wiśniewska, *Wykorzystanie koncepcji Living Lab w zarządzaniu jednostkami samorządu terytorialnego*, Chair of the Management of City and Region, University of Łódź, Łódź 2015, p. 205.

The Wielicka Zone is perfectly situated in the Southern, Cracovian by-pass of the motorway. The area of the zone is adjacent to the Bieżanowski Junction, and also to the motorway A4 and (being under construction) throughway S7. The motorway starts at the border with Germany, and goes through Zgorzelec, Legnica, Wrocław, Opole, Gliwice, Katowice, Cracow, Tarnów, Rzeszów, and in the direction of Korczowa, where a border pass on the territory of Ukraine is situated.

The area of the zone is connected with Cracow by an adjacent two-lane street (Christo Botew Street), and the center of the Cracovian Metropolis, Cracovian Market Square, amounts to 12 km.

The railroad connection Cracow-Rzeszow goes through the Wielicka Special Economic Zone (in the neighbourhood, there are 2 railroad stops: station of the Polish National Railroad Kokotów and the station of Polish National Railroad Węgrzce Wielkie). Integrated bus lines travel through the village of Brzegi, the town of Kokotów and the village of Węgrzce Wielkie. The distance of 3 km separates the zone from streetcar and bus connections of the Urban Commune of Cracow.

The area of the zone is undergoing intensive investment work, and the particular significance is that of extending transportation and power-supply infrastructure. Roads and connections with the existing systems of transportation of the Cracovian agglomeration. A road connection with the throughway S7 has been constructed. The investment was conducted by the City of Cracow, the Town of Wieliczka and the County of Wieliczka. On the area of the zone, internal roads and sidewalks within the Special Economic Zone have been constructed; the investments were implemented with the use of regional funds co-financed by the European Union under the Małopolski Regional Operational Programme.

In the zone, construction work on a logistic facility which has the area of 17 thousand square meters (Firma 7R Logistic SA) have been completed. Warehouse-office buildings, training yard, parking space, lighting systems and exit from the county road have been constructed.

On the area of the zone, the first stage of land reclamation work, which is relevant to the modernization and maintenance of the embankments on the rivers: Serafa, Zabawka and Drwinia Długa, has been completed. The internal land reclamation ditches were subjected to a thorough maintenance in the area of the zone; currently, work relevant to constructing culverts and securing the ditches is being conducted. The work was conducted by the Voivodeship Management of Land Reclamation and Water Structures, the Town of Wieliczka and Małopolski Voivodeship Office.

In the year 2016, on the area of the contemporary Wielicka Special Economic Zone, IV World Youth Days were organised. For the needs of the World Youth Days, World Youth Days Roundabout was constructed; there, the Cross of the World Youth Days was placed. The Roads of Saint John Paul II, and also Pope Francis, were plotted. Next to the Roundabout, two buildings were erected: the House of Charity, a facility for elderly and disabled citizens, in which there is, the statue of the Mother of God of Loreto, placed there by the Holy Father. In turn, the other constructing is the logistic centre used for storing food by the Caritas of the Archdiocese of Cracow – so-called 'Bread of Charity'. Next to the buildings, there is the Bell of Charity, handed over by Cardinal Stanisław Dziwisz.

## Conclusion

A significant influence upon innovative processes in the units of territorial self-government is exerted by the character and the objectives of the functioning of self-government. Different than the market entities of production and service zones, self-government in the entirety of it is not concentrated on profit, but rather on satisfying the collective social needs of the members of a community. The above-mentioned objectives, and the scope of the activity of the units of territorial self-government, are concentrated on achieving the high level of the effectiveness of managing public resources, rather than on achieving a solely economic goal, which undeniably shapes a level lower than in the conditions of direct competition. That fact is connected with the absence of rivalry between business entities in numerous fields, and also with the multitude of functions, including, in particular, social

and economic ones. Combining these functions to serve a well-understood public interest is achieved at the expense of lowering effectiveness.

## Bibliography

1. Bloch C., *Measuring Public Innovation in the Nordic Countries (MEPIN)*, Danish Center for Studies in Research and Research Policy, Aarhus 2011.
2. Boryczka E.M., *Partycypacyjne instrumenty zarządzania jednostkami samorządu terytorialnego*, [in:] *Nowoczesne metody i narzędzia Zarządzania rozwojem lokalnym i terytorialnym*, ed. A. Nowakowska, Publishing Office of University of Łódź, Łódź 2015.
3. Drucker P.F., *Innowacje i przedsiębiorczość. Praktyka i zasady*. Wydawnictwo PWE, Warszawa 1962.
4. *Działalność innowacyjna przedsiębiorstw w latach 2009-2011*. Central Statistical Office. Warszawa 2012.
5. *Działalność innowacyjna przedsiębiorstw w latach 2009-2011*. Central Statistical Office. Warszawa 2012.
6. Freeman Ch., *The Economics of Industrial Innovation*, F. Pinter, London, 1982.
7. Gościński J., *Strategia rozwoju a zarządzanie*, Studia Prawno-Ekonomiczne, 1972, Vol. IX.
8. Griffin R.W., *Podstawy zarządzania organizacjami*, Wydawnictwo Naukowe PWN, Warszawa 1996.
9. Hollands R., *Will the Smart City Please Stand Up? Intelligent, Progressive or Entrepreneurial?*, „City” 2008, Vol. 12, No. 3.
10. Janasz W., Koziół K., *Determinanty działalności innowacyjnej przedsiębiorstw*, Wydawnictwo PWE, Warszawa, 2007.
11. Janasz W., Koziół-Nadolna K., *Innowacje w organizacji*. Wydawnictwo PWE, Warszawa 2011.
12. Komninos N., *Intelligent Cities: Innovation, Knowledge Systems and Digital Spaces*, Spon Press, Londyn 2002.
13. Florida R., *Cities and The Creative Class*, Routledge, London 2005.
14. Koziół-Nadolna K., *Modele Zarządzania innowacjami w XXI wieku*, <http://janek.uek.krakow.pl/~kzzo/4.1.pdf> [accessed: 23.11.2017].
15. Lama N., Oigin A., *Innovation ECOSYSTEMS: Services Engineering & Living Labs a Dream to Drive Innovation?*, 2006.
16. Markowski T., *Funkcjonowanie gospodarki przestrzennej – założenia budowy modelu zintegrowanego planowania i Zarządzania rozwojem*, [in:] *System planowania przestrzennego i jego rola w strategicznym zarządzaniu rozwojem kraju*, ed. T. Markowski, P. Żuber, Studia KPZK PAN, Vol. 134, Warszawa 2011.
17. Mikołajczyk B., *Innowacje w sektorze publicznym w krajach Unii Europejskiej (wyniki badań)*, Studia Ekonomiczne, Issue 173, *Innowacje w bankowości i finansach*, Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, Katowice 2013.
18. *Nowoczesne Zarządzania projektami*, ed. M. Trocki, PWE, Warszawa 2012.
19. Petkovsek V., Cankar S., *Public sector innovation in the European Union and example of good practice*, Active Citizenship by Knowledge Management and Innovation, International Conference Zadar, Croatia, 19–21 June 2013, Zadar 2013.
20. Pomykalski A., *Zarządzania innowacjami*. PWN, Warszawa 2001.
21. Rivera L., Simmonds P., Roman L., *Trends and challenges in public sector innovation in Europe*, Technopolis Group, October 2012.
22. Schumpeter J., *Teoria rozwoju gospodarczego*, PWN, Warszawa 1960.
23. Schumpeter J.A., *Teoria rozwoju gospodarczego*, Wydawnictwo PWE, Warszawa 1960.

24. Stabryła A., *Zarządzania strategiczne w teorii i praktyce firmy*, Wydawnictwo Naukowe PWN, Warszawa-Kraków 2000.
25. Stawasz M., Wiśniewska E., *Wykorzystanie koncepcji Living Lab w zarządzaniu jednostkami samorządu terytorialnego*, Chair of City and Region Management, University of Łódź, Łódź 2015.
26. Szydłowski C., *Metody zarządzania organizacjami administracji publicznej*, [in:] D. Stawasz, D. Drzazga, C. Szydłowski, *Wybrane aspekty sprawności zarządzania w administracji publicznej*, Publishing Office of University of Łódź, Łódź 2011.
27. Walker R., *Innovation type and diffusion: An empirical analysis of local government*, Public Administration, vol. 84, no. 2, 2006.
28. Wziętek-Kubiak A., Balcerowicz E., *Determinanty rozwoju innowacyjności firmy w kontekście poziomu wykształcenia pracowników*, an expert assessment prepared for the Polish Agency for Enterprise Development, Warszawa 2009.
29. *Zarządzanie w samorządzie terytorialnym*, eds. M. Zawicki, S. Mazur, J. Bober, Małopolska School of Public Administration of the Cracow University of Economics in Cracow, Kraków 2004.

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# INNOVATION PROCESS IN THE MANUFACTURE OF AGRICULTURAL MACHINES

## *Summary*

*One of the main sectors for the development of society is agriculture and, accordingly, agricultural machinery. So, agricultural machines are important for developed or developing countries. The agricultural machinery sector is open to innovation from primitive to advanced stage. Many people accept that creating new ideas is the beginning of the innovation process, but indeed, that may not true. This paper occurs in the middle of the disciplined innovation process. The aim of this study is to show how important the innovation is for every enterprise as well as for the companies that produce agricultural machinery.*

\* \* \*

## **Introduction**

One of the main sectors for the development of society is agriculture and, accordingly, agricultural machinery. So, agricultural machines are important for developed or developing countries. The agricultural machinery sector is open to innovation from primitive to advanced stage. Increased competition between societies, successful practices in innovation culture has moved to another dimension with putting into operation. A clustering methodology provides significant gains in this regard. Accordingly, the improved performance in innovation activities, an increase in the product of patentable employees in addition to productivity brought about significant gains.<sup>1</sup> Many people accept that creating new ideas is the beginning of the innovation process, but indeed, that may not true. This paper occurs in the middle of the disciplined innovation process. While the purpose of innovation is simply to create economic value, the value itself can take several different forms. It can be incremental improvements to existing products, the creation of breakthroughs such as completely new products and services, efficiency improvements, new

<sup>1</sup> Eker, B., *Kümelene Kültürünün İnovasyonu Geliştirme Yönündeki Etkisi*, İnovasyon 2023 Sempozyumu, Elazığ, 2015

ventures, cost reductions, new business models and numerous other forms as well. The method of creating innovation is to develop, discover, and create ideas, to purify them into useful forms, and to use them to realise profits, deduct costs, and/or increase efficiency. Here we focus on the process of innovation.

## **Process of Innovation**

Most business leaders recognize the value of innovation. In a study from consulting firm Accenture, 96 percent of executives surveyed said that their organization's long-term success depends on developing new ideas. In addition, 87 percent of leaders believed their companies' innovation resulted in a good return on investment; however, 82 percent of respondents didn't make a meaningful distinction between significant innovation and achieving incremental performance gains. Accenture notes that 72 percent of companies allow innovations to languish because there is no formalized process or organizational home for such initiatives.<sup>2</sup> And according to an exploratory study of more than 30 companies in the United States and Europe.<sup>3</sup>

In the seek for innovation, it's clear that many thoughts at the entry phase become a few completed, useful innovations at the final phase. There are several types of innovation. The three which people usually correlate with innovation are product innovation, service innovation and process innovation. The simplest to understand is product innovation. We're all well-known with the new electronic devices. Less often, we think about how the product is produced – such as the manufacturing technology behind how to produce the tablet computer. This is titled process innovation. Not all companies are easiest or industrial companies. Many companies are service companies, providing services to their customers instead of products. And they innovate, as well. We order food via websites or mobile to our homes. Those are service types of innovation. There are two extra types of innovation which people don't usually correlate with innovative activities. These are organisational innovation and business model innovation. organisational innovation also called managerial innovation. This involves fundamental changes in practices, processes, and structure of how the activities within the business are managed. Examples are lean manufacturing, total quality management, outsourcing, and supply chain. These are normal ways in which companies organise work within the companies. But also, interactions across companies. The final type is business model innovation is about making changes in how the company creates value for its customers and how the company captures the value from the innovation. The technological innovation is in the background. But we see how the company creates value in a very innovative, new and unusual way.

Ideas are actually the seeds of innovation, just as waving fields of wheat provide the raw material for flour, or ore taken from the ground is the raw material of iron.<sup>4</sup> But it takes a lot of work to prepare the fields to grow the wheat long before it becomes flour or to mine the raw ore and transform it into iron. It's identical with innovation; we don't start by collecting crude ideas. Alternatively, we know that innovation is a core element of our organisations' strategy, so we have to start the innovation process itself with strategic thinking to warrant that the outputs of innovation are fully aligned with our strategic plan.

The first step is, therefore, Strategic Thinking. The innovation process begins with the goal to create a strategic advantage in the marketplace, so at this phase, we think specifically about how innovation is going to add value to our strategic plans, and we target the areas where innovation has the greatest potential to provide strategic advantage.

<sup>2</sup> Neese, B., *Cultivating a Robust Organization: 5 Stages of the Innovation Process*, www.rivier.edu 2017.

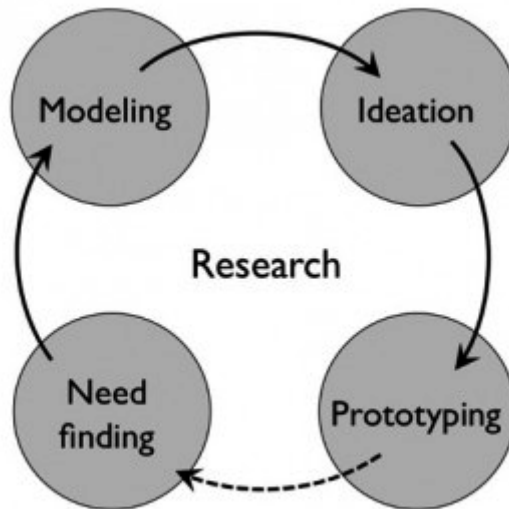
<sup>3</sup> Desouza K.C., *Crafting Organizational Innovation Processes*, Innovation Organization & Management Journal, Vol.11 2009.

<sup>4</sup> Morris L., *The Innovation Master Plan*, p.137 www.innovationlabs.com 2017.

The second step is Portfolio Management and Metrics. One of the vital facts of innovation management is the necessity of failure. We are trying to do something new, and as we proceed on the innovation expedition we don't know if we are going to succeed. We have confidence that we'll succeed eventually, but along the way, we know that there will be many wrong turns, and many attempts that will never reach to fruition. So we manage innovation portfolios aggressively to balance the inherent risks of the unknown with the targeted rewards of success, and balancing our pursuit of the ideal with the realities of risking, learning, failing in order to finally succeed.

The third step is Research. An output of Stage 2 is the design of the ideal innovation portfolio, which is what we believe, as of today, is the right mixture of short and long term projects across all four types of innovation. Once we understand the ideal we can compare our current knowledge and discern the gaps. Filling these gaps, then, is the purpose of research. Through research, we will master a wide range of unknowns, including emerging technologies, societal change, and customer values, and in the process, we will expose significant new opportunities for innovation.

Figure 1: The Four Stages of the Research Cycle



Source: Morris L., The Innovation Master Plan, 2017

Strategic thinking has clarified for us how the world is changing and what our customers may value, and this stimulates new questions that our research has answered. Research findings provoke a broad range of innovative ideas across a wide range of internal and external topics. This is the abundant raw material, and it is already and automatically aligned with our strategic intent because it came about as a result of a direct connection between strategy, portfolio design, and research.

The fourth step is Insight. While our explorations, the light bulb occasionally illuminates, and we grasp the very best ways to address a future possibility. Eureka! The innovation and the target and mutually clarified; we understand what the right value proposition is for the right customer. While many people think of this moment of insight as for the beginning of the innovation process, as you can see, in the well-managed innovation effort we expect insight to come about as the result of the preceding processes and activities, not at random. Hence, the innovation process described here is specifically

contrasted with random idea generation; insight is the result of a dedicated process of examination and development. It doesn't occur because someone had a good idea in the shower, but because individuals and teams of people were looking diligently and persistently for it.

The fifth step is Innovation Development, the process of design, engineering, prototyping, and testing that results in a finished product, service, and business designs. Manufacturing, distribution, branding, marketing, and sales are also designed at this step in an integrated, multi-disciplinary process.

The sixth step is Market Development, the universal business planning process that begins with brand identification and development, continues through the preparation of customers to understand and choose this innovation and leads to rapid sales growth.

The seventh step is Selling, the where the real payoff is achieved. Now we earn the financial return by successfully selling the new products and services.

In conclusion, innovation, which is indispensable for companies to survive today, has its place from start-up to the level of holding companies. Innovation is irreplaceable in meeting the rapidly changing needs of human beings, producing high value added, using the limited resources we have most efficiently. Like every business, our agricultural machinery manufacturing company is innovating the key to innovation and its ability to quickly and accurately assess market needs and opportunities to take place in its own territory, country and even global competition.

## Conclusion

The innovation process can be cyclic. All ideas must go through the entire innovation process, but any single organization may not participate in all of the phases. Identifying competencies in the innovation process can help organizations improve their overall success with innovation. Organizations need a common language around which to discuss and analyse innovation. Establishing goals for specific stages of the innovation process will be more effective than basically urging employees to innovate. Rather than relying upon serendipity, organizations can structure initiatives around the innovation process for maximum benefit. Furthermore, companies can advance each of the phases for even better performance.

In conclusion, innovation, which is indispensable for companies to survive today, has its place from start-up to the level of holding companies. Innovation is irreplaceable in meeting the rapidly changing needs of human beings, producing high value added, using the limited resources we have most efficiently. For any business, innovation is the key to assessing the needs and opportunities of the market in a fast and accurate way in its own region, country and even global competition. So, its's same for agricultural machinery manufacturing companies. When it comes to agricultural machinery sector, innovation is needed. Innovation in this sector can take an effective role in the development of societies.

## Bibliography

1. Souza K.C., *Crafting Organizational Innovation Processes*, Innovation Organization & Management Journal, Vol.11 2009.
2. Eker, B., *Kümelene Kültürünün İnovasyonu Geliştirme Yönündeki Etkisi*, İnovasyon 2023 Sempozyumu, Elazığ, 2015.
3. Morris L., *The Innovation Master Plan*, p.137 www.innovationlabs.com 2017.
4. Neese, B., *Cultivating a Robust Organization: 5 Stages of the Innovation Process*, www.rivier.edu 2017.
5. Warren, V.V., Davies B.J., *Exploring Service Innovation Process in a Small Business Services Firm*, Proceedings of the 6th MAC 2016, Prague 2016.



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# CROWDFUNDING AS AN INNOVATIVE MODEL OF PROVIDING FUNDING TO PROJECTS

## *Summary*

*Crowdfunding is an innovative model of providing funding to projects. The purpose of the article is to analyze the assumptions of the crowdfunding and to provide an overview of the literature on crowdfunding. The subject literature can be divided into three groups: crowdfunding literature with a focus on capital seekers, crowdfunding literature with a focus on capital providers, crowdfunding literature with a focus on intermediaries.*

\* \* \*

## **Introduction**

Due to the newly appearing types and forms of contemporary innovation and a shift of paradigm from closed to open, in addition to traditional sources of funding innovation projects, there are appearing new ones. Innovation can be financed from different sources, e.g. own resources of organizations, external resources, or funding obtained from the web community (crowdfunding).

Crowdfunding has been growing rapidly in the past few years as advancements in technology and the growth of social media has made it far easier for entrepreneurs to reach large amounts of people at far less cost<sup>1</sup>. Crowdfunding is an innovative model of providing funding to projects. The purpose of the article is to analyze the assumptions of the crowdfunding and to provide an overview of the literature on crowdfunding.

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<sup>1</sup> Y. Pierrakis, L. Collins, *Crowdfunding: A New Innovative Model of Providing Funding to Projects and Businesses*, 2013, Retrieved from <http://ssrn.com/abstract=2395226>.

## The nature and characteristics of crowdfunding

The phenomenon of crowdfunding is part of a broader concept called crowdsourcing, i.e. treating a crowd or, in other words, a community as a source of various resources.

In 2006, the term crowdsourcing was first used by Jeff Howe<sup>2</sup> in Wired Magazine – Howe defined crowdsourcing and also provided examples of its variations and identified the following:

1. Crowd Creation – a form of community involvement to look for new solutions, it is a genuine talent demonstrated by people in the crowd – together or separately. Its effect is the creation of Linux, Wikipedia, iStockphoto, Innocentive, TopCoder and many other projects or companies.
2. Crowd Voting, the most popular form of crowdsourcing involving many participants, e.g. in a vote on a new name of a drink, a brand of a car, the choice of participants in a music program.
3. Crowd Wisdom, ‘wisdom of the crowd’, is an attempt to collect and compile many individual judgments and opinions in order to solve a problem, prepare a prognosis and outline a corporate strategy.
4. CrowdFunding, seen as a modification of crowdsourcing.

Currently, crowdfunding is seen as an independent phenomenon. It means financing various projects by a crowd (a digital crowd), including innovation projects, those from the sphere of business, culture, arts, sports, media, etc. The term crowdfunding is said to have been coined by M. Sullivan who used it on a blog fundavlog in 2006.

When defining crowdfunding one should bear in mind that this phenomenon is shaping now, right in front of our eyes, and in addition to its main goal, i.e. financing projects, it creates a new trend in business. K. Król<sup>3</sup> defines crowdfunding as follows: “a type of collection and allocation of capital transferred for the development of a particular project in exchange for a particular return benefit, encouraging a wide range of lenders, also characterized by the use of ICT, a lower barrier to entry and better conditions of transactions than those available on a public market.”

Schwienbacher and Larralde<sup>4</sup> define crowdfunding as “an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of a reward and/or voting rights in order to support initiatives for specific purposes.”

The funds are obtained from Internet users. The idea and the advantage of this mechanism is that it is based on micropayments from a community. An innovation project is financed by a large number of small, one-time payments made by people interested in a project. What prompts them to do so? First and foremost, a good idea, creativity, credibility, transparency and a well-told story. It should be added that a project must be completed before a deadline expires, otherwise an auction is closed and all payments returned.

Crowdfunding as a new mechanism for fundraising stands out due to certain characteristics that allow to distinguish it from public collections, donations and other traditional forms. The first characteristic feature of crowdfunding is giving cash, almost always in a dematerialized form. There is no possibility of providing support in other forms, e.g. in the form of tangible assets or others. The whole process of capital accumulation takes place by using ICT solutions. The aim of a project being financed by crowdfunding, allocation of resources and the effects of their spending are clearly defined. Crowdfunding does not require any consent from any state body, and can be carried out for personal, business or public reasons. Terms and conditions for raising capital within crowdfunding are better and more favorable than public market conditions. Another characteristic is a wider group of recipients – information about a project is available for a very large group of people, which entails another characteristic, i.e. no restrictions on the access to support a project. The ability to support a project is openly presented, addressed to

<sup>2</sup> J. Howe, *The rise of Crowdsourcing*, Wired Magazine, 2006, June.

<sup>3</sup> K. Król, *Finansowanie społecznościowe jako źródło finansowania przedsięwzięć w Polsce, 2013*, (thesis).

<sup>4</sup> A. Schwienbacher, B. Larralde, *Crowdfunding of small entrepreneurial ventures*, Handbook of Entrepreneurial Finance, Oxford University Press, Forthcoming, 2010. Retrieved from <http://ssrn.com/abstract=1699183>, p. 4.

an unspecified addressee. The last very important and distinguishing characteristic of crowdfunding is a return benefit received from providing financial support<sup>5</sup>.

## Review of the literature on crowdfunding

Crowdfunding is a relatively new phenomenon. The subject literature can be divided into three groups:<sup>6</sup>

- crowdfunding literature with a focus on capital seekers,
- crowdfunding literature with a focus on capital providers,
- crowdfunding literature with a focus on intermediaries.

Literature focusing on the capital-seeking party is predominantly concerned with the motivations for crowdfunding, the determinants of success, and the legal restrictions of equity-based crowdfunding.

Belleflamme et al.<sup>7</sup> compare two forms of crowdfunding: entrepreneurs solicit individuals either to pre-order the product or to advance a fixed amount of money in exchange for a share of future profits (or equity). Using a unified model, they show that the entrepreneur prefers pre-ordering if the initial capital requirement is relatively small compared with market size and prefers profit sharing otherwise. In another article Belleflamme et al.,<sup>8</sup> identify in their interviews with crowdfunding-experienced entrepreneurs three main reasons for choosing crowdfunding to finance their projects. The collection of funds was stated by all of the respondents as the main reason for using crowdfunding. Other motives mentioned were the attainment of public attention and receiving feedback for their products or services.

Gerber et al.<sup>9</sup> have deepened the analysis by identifying five categories of motivations: fundraising, establishing relationships, receiving legitimacy, replicating successful experiences, increasing awareness about crowdfunding's work through social media.

Mollick<sup>10</sup> examines the geography of crowdfunding using data from Kickstarter to examine the determinants of success in crowdfunding ventures. Mollick uncovers a strong geographic component to the nature of projects, with founders proposing projects that reflect the underlying cultural products of their geographic area.

Hemer et al.<sup>11</sup> show theoretical and practical analysis of crowdfunding as an alternative to early-stage financing of startups. For this purpose, the authors use interviews and case studies.

Other researchers show that funding success is significantly related to project quality signals such as preparedness, narrative, and others' contribution decisions as well as individual quality signals like personal characteristics (including gender and race), creditworthiness, and social networks<sup>12</sup>.

Crowdfunding literature focusing on the capital providers is concerned with the motives of capital providers for participating in crowdfunding and the factors that influence the investment decision.

<sup>5</sup> K. Król, op. cit.

<sup>6</sup> A. Moritz, J. H. Block, *Crowdfunding: A Literature Review and Research Directions*, 2014. Retrieved from <http://ssrn.com/abstract=2554444>.

<sup>7</sup> P. Belleflamme, T. Lambert, A. Schwienbacher, *Crowdfunding: Tapping the Right Crowd*, "Journal of Business Venturing", 2013, Vol. 29(5), pp. 585-609. Retrieved from <http://ssrn.com/abstract=1578175>.

<sup>8</sup> P. Belleflamme, T. Lambert, A. Schwienbacher, *Individual Crowdfunding Practices*, "Venture Capital", 2013, Vol. 15(4), pp. 313-333. doi:10.1080/13691066.2013.785151.

<sup>9</sup> E. Gerber, J. Hui, P. Kuo, *Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms*, An/ CSCW Workshop, 2012. Retrieved from [http://www.juliehui.org/wp-content/uploads/2013/04/CSCW\\_Crowdfunding\\_Final.pdf](http://www.juliehui.org/wp-content/uploads/2013/04/CSCW_Crowdfunding_Final.pdf).

<sup>10</sup> E. R. Mollick, *The Dynamics of Crowdfunding: An Exploratory Study*, "Journal of Business Venturing", 2014, Vol. 29(1), pp. 1-16. Retrieved from <http://ssrn.com/abstract=2088298>.

<sup>11</sup> J. Hemer, U. Schneider, F. Dornbusch, S. Frey, *Crowdfunding und andere Formen informeller Mikrofinanzierung in der Projekt- und Innovationsfinanzierung*, Fraunhofer Verlag, Stuttgart, 2011.

<sup>12</sup> V. Kuppuswamy, B. L. Bayus, *A Review of Crowdfunding Research and Findings*, Handbook of New Product Development Research, Forthcoming, 2015. Retrieved from <http://ssrn.com/abstract=2685739>.

Kuppuswamy and Bayus<sup>13</sup> examine funded projects listed on Kickstarter and show that social information (i.e., other crowdfunders' funding decisions) plays a key role in the success of a project.

Brem & Wassong<sup>14</sup> carried out the analysis of the factors determining the investment decision of individual investors in crowdfunding. The results show that the product plays an important role in investment decisions, especially when it comes to gender differences. Moreover, personal relationships to the start-up positively influence the investment decision.

Capital providers in crowdfunding are not just financially motivated. Social reputation and intrinsic motives play a significant role<sup>15</sup>. The wish to interact in social networks has been identified as a key motive of capital providers for participating in crowdfunding transactions. Several studies examine the effect of social networks on the decision behavior of capital providers. It has been shown that social networks reduce information asymmetries and increase funding probability<sup>16</sup>.

So far, there have been only few research studies on crowdfunding platforms as an intermediary in crowdfunding transactions. For instance, such a study concerning the review of crowdfunding platforms was carried out in Italy by Giudici et al<sup>17</sup> and in Poland by Koziol-Nadolna<sup>18</sup>.

Belleflamme and Lambert<sup>19</sup> in their article discuss the roles and strategies of crowdfunding platforms, which intermediate between entrepreneurs and contributors and they describe the price and non-price strategies that these platforms implement.

## Models of crowdfunding platforms

Funding obtained from an Internet community can take different forms. Below is presented the classification of crowdfunding according to a type of funding and a form of rewards offered in return for support<sup>20</sup>.

1. Donation model, also known as a charity model, is the most common model where internet users financially support a project, with a specific, philanthropic purpose. In the traditional donation model funders are not rewarded, whilst in a modified model (a sponsorship model), in return for their support, they receive, e.g. CDs, books, concert tickets, etc.
2. Reward-based model, also called a sponsorship model.

<sup>13</sup> V. Kuppuswamy, B. L. Bayus, *Crowdfunding Creative Ideas: The Dynamics of Project Backers in Kickstarter*, UNC Kenan-Flagler Research Paper, 2013, No. 15. Retrieved from <http://ssrn.com/abstract=2234765>.

<sup>14</sup> A. Brem, N. Wassong, *Wer investiert warum? Eine Analyse von Investmententscheidungen bei Crowdfunding-Projekten*, "ZfKE – Zeitschrift für KMU und Entrepreneurship", 2014, Vol. 62, Crowdsourcing/Crowdfunding, pp. 31-55, doi: 10.3790/zfke.62.1.31.

<sup>15</sup> T. H. Allison, B. C. Davis, J. C. Short, J. W. Webb, *Crowdfunding in a Prosocial Microlending Environment: Examining the Role of Intrinsic Versus Extrinsic Cues*, "Entrepreneurship Theory and Practice", 2014, doi:10.1111/etap.12108.

<sup>16</sup> M. Lin & S. Viswanathan, *Home bias in online investments: An empirical study of an online crowd funding market*, SSRN Working Paper, 2013, No. 2219546. Retrieved from <http://papers.ssrn.com/sol3/Delivery.cfm?abstractid=2219546>; D. Liu, Y. Lu & D. Brass, *Friendships in online peer-to-peer lending: Pipes, prisms, and social herding*, SSRN Working Paper, 2013, No. 2251155. Retrieved from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2251155](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2251155).

<sup>17</sup> G. Giudici, R. Nava, L. Rossi, Ch. Verecondo, *Crowdfunding: The New Frontier for Financing Entrepreneurship?* Retrieved from <http://ssrn.com/abstract=2157429>.

<sup>18</sup> K. Koziol-Nadolna, *Funding Innovation in Poland through Crowdfunding*, "Journal of Entrepreneurship, Management and Innovation", Vol. 12, Issue 3, 2016, pp. 7-30.

<sup>19</sup> P. Belleflamme, T. Lambert, *Crowdfunding: Some Empirical Findings and Microeconomic Underpinnings*. Retrieved from <http://ssrn.com/abstract=2437786>.

<sup>20</sup> D. T. Dziuba, *Rozwój systemów crowdfundingu – modele, oczekiwania i uwarunkowania*, „Problemy Zarządzania”, 2012, Vol. 10(3), pp. 86-87; UKIE, *Crowd Funding Report: A Proposal to Facilitate Crowd Funding in the UK*, February 2012.

3. Lending model in which a community offers funds in the form of a direct loan, bypassing banks, or other organizations involved in lending; there are two types of this model:
  - a) microfinanced loans' model based on financial aid to the poorest where small amounts are shared;
  - b) social lending model characterized by large amounts of financial resources; funds are collected and then lent out under certain conditions; loans can be granted for consumption or business purposes;
4. Investment-based model where Internet users on investment platforms invest their own resources in specific projects and ventures in anticipation of specific financial gains; this is a common way of funding start-ups. There are three types of this model:
  - a) collective investment model involving different groups of people, including business angels, who invest relatively small amounts in the development of a project;
  - b) investment fund model is based on collective allocation of funds and joint investment; there may be cases that a platform is organized as an investment fund (i.e. venture capital funds); in this model, in exchange for investing in a project funders expect to share profits, e.g. shares, securities.
  - c) investment model, i.e. equity model (securities model), is based on selling shares and transferring ownership rights to online investors; invested funds are usually high.
5. Mixed Model (mixed solutions) is based on a combination of the abovementioned models.

Due to the nature of a project we can distinguish the following:

  - a not-for-profit model aiming to achieve social objectives,
  - a for-profit model where the aim is a commercial use of a completed project.

### **Crowdfunding as a source of funding to projects and businesses**

The capital is the basis for the development of innovative projects. Polish entrepreneurs indicate that the lack of opportunity for funding innovations, both from internal and external sources, is one of the most significant barriers to innovation – it is confirmed by one in four industrial enterprises and one in five services sector enterprises<sup>21</sup>. Financial barriers are primarily manifested in the limited access to funds. It notably pertains to micro-enterprises and start-ups. This is due to the low degree of involvement of the banking sector in financing the development of small and medium-sized enterprises.

There is also limited access to non-banking sources of financing, such as venture capital.

Therefore, in view of the difficulties with obtaining the abovementioned external sources of financing, crowdfunding is a new source of fundraising for innovative ventures. As described in the introduction to the article, the current innovation is more frequently co-created by customers or users in the open innovation model, which fits in perfectly with the concept of crowdfunding. A comparison of crowdfunding and other sources of raising capital are presented in table 1.

From the perspective of investors, the new form of financing allows the direct choice in terms of funds allocation and gives a sense of commitment to the implementation of the project. People involved in community financing can take another look at entrepreneurs and come into direct contact with them, which can further promote the culture of entrepreneurship. Entities funding projects often also form a kind of a community to support the funded project or may provide non-financial resources in the form of social knowledge<sup>22</sup>.

From the perspective of the company, in addition to funds received, the help in obtaining other forms of co-financing is also of crucial importance. In many cases, project initiators are looking for the means to complete only a part of the project. In this situation, obtaining the expected amount on the crowdfunding platform facilitates subsequent financial negotiations with other investors or banks.

<sup>21</sup> GUS, *Działalność innowacyjna przedsiębiorstw w Polsce*, Warszawa 2015, p. 120.

<sup>22</sup> European Commission, *2013 SMEs' Access to Finance survey*, 2013. Retrieved from <http://ec.europa.eu/DocsRoom/documents/7864/attachments/1/translations/en/.../native>.

Table 1. A comparison of crowdfunding and other sources of funding for small venture projects

	Crowdfunding	Venture capital and private equity funds	Business angels	Stock exchanges and trading platforms	Bank loans	Leasing finance/trade credit
Enabler organization	Yes	No	No	Yes	No	Yes
Direct interaction	Yes	Yes	Yes	No	Yes	No
Affiliation of investor/investee	Yes	No	No	Yes	No	Yes

Source: G. Giudici, R. Nava, L. Rossi, C. Verecondo, *Crowdfunding: The New Frontier for Financing Entrepreneurship?* 2012. Retrieved from <http://ssrn.com/abstract=2157429>.

Crowdfunding enables companies not only to obtain funding for the project but also to create an engaged community around it and, moreover, it facilitates its promotion. Crowdfunding allows to verify an idea, check the reaction of potential consumers, and open doors for further refinement of the product, which is especially important for innovation. Crowdfunding can also bring potential benefits for innovation and research and development. It can also contribute to economic growth, community development and job creation with simultaneous financing of innovative projects that do not have the degree of advancement required by traditional financial market sources.

## Conclusion

Funding innovative projects is one of the most serious problems dealt with by business owners in Poland. The lack of capital for the realization of innovative projects can translate into a deterioration of a competitive position of a company. Thus, a capital is the basis for the development of innovative enterprises.

An access to financial resources is also one of the most urgent problems for European SMEs<sup>23</sup>. For many projects financing needs are not met by existing sources of financing, which is defined as the funding gap.

Crowdfunding may prove to be a support for entrepreneurship both in terms of improving access to funding and in the context of additional market research<sup>24</sup> and marketing tools that can help entrepreneurs obtain comprehensive knowledge of their customers and promotion in the media.

## Bibliography

- Allison T. H., Davis B. C., Short J. C., Webb J. W., *Crowdfunding in a Prosocial Microlending Environment: Examining the Role of Intrinsic Versus Extrinsic Cues*, "Entrepreneurship Theory and Practice", 2014, doi:10.1111/etap.12108.

<sup>23</sup> Ibidem.

<sup>24</sup> European Commission, *Crowdfunding in the EU Capital Markets Union*, SWD (2016) 154 final, Brussels 2016, p. 5.

2. Belleflamme P., & Lambert T., *Crowdfunding: Some Empirical Findings and Microeconomic Underpinnings*, 2014. Retrieved from <http://ssrn.com/abstract=2437786>.
3. Belleflamme P., Lambert T., & Schwienbacher, A., *Individual Crowdfunding Practices*, “Venture Capital”, 2013, Vol. 15(4), doi:10.1080/13691066.2013.785151.
4. Belleflamme P., Lambert T., Schwienbacher A., *Crowdfunding: Tapping the Right Crowd*, “Journal of Business Venturing”, 2013, Vol. 29(5). Retrieved from <http://ssrn.com/abstract=1578175>.
5. Brem A., Wassong N., *Wer investiert warum? Eine Analyse von Investmententscheidungen bei Crowdfunding-Projekten*, “ZfKE – Zeitschrift für KMU und Entrepreneurship”, 2014, Vol. 62, Crowdsourcing/Crowdfunding, doi: 10.3790/zfke.62.1.31.
6. Dziuba D. T., *Rozwój systemów crowdfundingu – modele, oczekiwania i uwarunkowania*, „Problemy Zarządzania”, 2012, Vol. 10(3).
7. European Commission, *2013 SMEs’ Access to Finance survey*, 2013. Retrieved from <http://ec.europa.eu/DocsRoom/documents/7864/attachments/1/translations/en/.../native>.
8. European Commission, *Crowdfunding in the EU Capital Markets Union*, 2016, SWD (2016) 154 final, Brussels.
9. Gerber E., Hui J., & Kuo P., *Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms*. An/ CSCW Workshop, 2012. Retrieved from [http://www.juliehui.org/wp-content/uploads/2013/04/CSCW\\_Crowdfunding\\_Final.pdf](http://www.juliehui.org/wp-content/uploads/2013/04/CSCW_Crowdfunding_Final.pdf).
10. Giudici G., Nava R., Rossi L., & Verecondo Ch., *Crowdfunding: The New Frontier for Financing Entrepreneurship?* 2012. Retrieved from <http://ssrn.com/abstract=2157429>.
11. GUS, *Działalność innowacyjna przedsiębiorstw w Polsce*, Warszawa 2015.
12. Hemer J., Schneider U., Dornbusch F., & Frey S., *Crowdfunding und andere Formen informeller Mikrofinanzierung in der Projekt-und Innovationsfinanzierung*, Fraunhofer Verlag, Stuttgart 2011.
13. Howe J., *The rise of Crowdsourcing*, “Wired Magazine”, 2006, June.
14. Kozioł-Nadolna K., *Funding Innovation in Poland through Crowdfunding*, “Journal of Entrepreneurship, Management and Innovation”, 2016, Vol. 12.
15. Król K., *Finansowanie społecznościowe jako źródło finansowania przedsięwzięć w Polsce*, 2013, (thesis).
16. Kuppuswamy V., & Bayus B. L., *A Review of Crowdfunding Research and Findings*, “Handbook of New Product Development Research”, Forthcoming, 2015. Retrieved from <http://ssrn.com/abstract=2685739>.
17. Kuppuswamy V., & Bayus B. L., *Crowdfunding Creative Ideas: The Dynamics of Project Backers in Kickstarter*, “UNC Kenan-Flagler Research Paper”, 2013, No. 2013-1. Retrieved from <http://ssrn.com/abstract=2234765>.
18. Lin M., & Viswanathan S., *Home bias in online investments: An empirical study of an online crowd funding market*, SSRN Working Paper, 2013, No. 2219546. Retrieved from <http://papers.ssrn.com/sol3/Delivery.cfm?abstractid=2219546>.
19. Liu D., Lu Y., & Brass D., *Friendships in online peer-to-peer lending: Pipes, prisms, and social herding*, SSRN Working Paper, 2013, No. 2251155. Retrieved from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2251155](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2251155).
20. Mollick E. R., *The Dynamics of Crowdfunding: An Exploratory Study*, “Journal of Business Venturing”, 2014, Vol. 29. Retrieved from <http://ssrn.com/abstract=2088298>.
21. Moritz A., Block J. H., *Crowdfunding: A Literature Review and Research Directions*, 2014. Retrieved from <http://ssrn.com/abstract=2554444>.
22. Pierrakis, Y., & Collins L., *Crowdfunding: A New Innovative Model of Providing Funding to Projects and Businesses*, 2013. Retrieved from <http://ssrn.com/abstract=2395226>.
23. Schwienbacher A., Larralde B., *Crowdfunding of small entrepreneurial ventures*, “Handbook of Entrepreneurial Finance”, Oxford University Press, Forthcoming, 2010. Retrieved from <http://ssrn.com/abstract=1699183>.
24. UKIE, *Crowd Funding Report: A Proposal to Facilitate Crowd Funding in the UK*, 2012, February.





## **PART IV**

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**INTERNATIONALIZATION  
OF ENTERPRISE ACTIVITY**



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# TWO NEW FUNDAMENTAL INSTITUTIONS NECESSARY FOR FAIR AND EFFECTIVE FUNCTIONING OF THE GLOBAL ECONOMY

## *Summary*

*Guy Standing's and Thomas Piketty's key arguments for introducing two new institutions to the global economy are discussed. The former proposes a universal basic income, the other a progressive capital tax to be accounted for globally on a yearly basis. Effectiveness of actions for developing political will to implement these institutions is evaluated in conclusion.*

\* \* \*

## **Introduction**

The second decade of the 21<sup>st</sup> century has brought a number of new scientific publications offering analyses of the growing income and asset inequalities globally and seeing them as the fundamental threat to continuing development of the global liberal economy and even to the very preservation of the parliamentary democracy system in economically developed countries.

The leader in this area is Thomas Piketty, professor at the Paris School of Economics, who published *Economic Inequalities* in 1997 (with new editions in 2008 and 2014)<sup>1</sup> and summarised his extensive achievements in *Capital in the Twenty-First Century* in 2013.<sup>2</sup> Two books by Guy Standing, professor at the University of London: *Precariat* and *A Precariat Charter: From Denizens to Citizens* (2014), were a sensation.<sup>3</sup> The Nobel Prize winning Joseph E. Stiglitz, who published *The Price of Inequality*:

<sup>1</sup> Piketty T., *Ekonomia nierówności*, Krytyka Polityczna, Warsaw 2015.

<sup>2</sup> Piketty T., *Kapitał w XXI wieku*, Krytyka Polityczna, Warsaw 2015.

<sup>3</sup> Standing G., *Karta Prekariatu*, PWN, Warsaw 2015.

*How Today's Divided Society Endangers Our Future*<sup>4</sup> (2012), and Jeremy Rifkin's bestselling *The Zero Marginal Cost Society* cannot be ignored either.<sup>5</sup>

These texts are all not optimistic. Without significant institutional reforms, prospects for continuing development of the global economy seem rather bleak.

The credit crunch of 2008-2009 revealed the glaring truth that faith in self-regulatory properties of the financial markets had had no genuine foundations. The idealised image of rational conduct of investors in financial markets (artificially constructed since the 1960s) became ever more complicated and far from rational in the final decades of the 20<sup>th</sup> century. That took place at a time of structural transformations accompanying processes of globalisation. Still worse, information in financial markets was increasingly often twisted or manipulated in the 1990s. All for the purpose of achieving short-term, undue financial gain, associated with enormous social losses. The series of unexpected bankruptcies of powerful American corporation at the turn of the century, described by the 2001 Nobel Prize winner Joseph. E. Stiglitz, is an example.<sup>6</sup>

The evolution of views of the most persistent student of financial markets, Eugene F. Fama (University of Chicago), winner of the Nobel for economics in 2001, is telling. He had engaged in empirical verification of the so-called Efficient Market Hypothesis (EMH) since the 1960s. It allows for combined analysis of information, allocation and organisational effectiveness of financial markets. Fama had no qualms about information effectiveness of the markets following his research of 1965. He envisaged competition among a growing group of smart investors leading to further improvements in effectiveness of the capital market. In his publications of 1976, he questions full information effectiveness of the finance markets and distinguishes three forms of the effectiveness: weak, semi-weak, and strong. Following conscientious empirical studies, he finally admitted in 1991 he had arrived at results both denying and affirming information effectiveness in each of its varieties. Thus, a positive verification of the Efficient Market Hypothesis is not possible.<sup>7</sup>

Analysis of roots of the 2008-2009 crisis has led to a clear conclusion new institutions are needed to monitor and control the global financial market. Hopes for a rapid emergence and implementation of such institutions by means of G20 summit meetings have proved vain, however.

Global political developments demonstrate a sufficiently strong political will required for profound institutional reforms of the global economy is unlikely to emerge. Even such fundamental proposals as the principle of states paying each citizen a universal, unconditional basic income (advanced by Guy Standing) or attempts at controlling the mad dynamics of asset accumulation with global progressive capital taxation (proposed by Thomas Piketty) are not appreciated by political decision-makers.

It is therefore necessary to build social awareness that the global economy will exhaust its development potential without radical institutional change. The very foundations of the parliamentary democratic system will be at risk as a consequence. That system was the principal source of the dynamic development of the world economy in the 2d half of the 20<sup>th</sup> century.

<sup>4</sup> Stiglitz J.E., *Cena nierówności. W jaki sposób dzisiejsze podziały społeczne zagrażają naszej przyszłości?*, Krytyka Polityczna, Warsaw 2015.

<sup>5</sup> Rifkin J., *Spoleczeństwo zerowych kosztów krańcowych. Internet przedmiotów. Ekonomia współdziałania. Zmierzch kapitalizm*, Studio Emka, Warsaw 2016.

<sup>6</sup> Stiglitz J.E., *Szalone lata dziewięćdziesiąte. Nowa historia najświetniejszej dekady w dziejach świata*, PWN, Warsaw 2006, (oryginał: Stiglitz J.E., *The Roaring Nineties, A New History of the World's Most Prosperous Decade*, 2003)

<sup>7</sup> more on this subject: Peszko A., *Rynki finansowe w mechanizmie nadzoru korporacyjnego (The financial markets in the corporate governance mechanism)*, „Studia Prawno Ekonomiczne” tom XCI/2, Łódzkie Towarzystwo Naukowe, Lodz 2014, pp. 281 – 292.

As part of this movement, a paper entitled ‘*Universal basic income and progressive capital tax – illusions or genuine factors in development of the global economy?*’<sup>8</sup> was presented at the 22<sup>nd</sup> International Conference *Managing restructuring. Processes and structures in the face of changes*, organised by the Department of Economics and Enterprise Organisation, Cracow University of Economics. The subject proved of great interest to the participants, most of them economics and management scientists. Nonetheless, answers to the question posed in the title were not unequivocal. The view that a universal, unconditional basic income could ‘spoil’ the job market instead of making it more efficient was quite common. Even the opinion that the flexible labour market in Poland (with its highest rate of ‘junk contracts of employment’ among the EU countries) is a major source of competitiveness of our economy could be heard off the record. Doubts were also raised in the discussion if a progressive capital tax is sufficiently rooted in economic realities.

The debate implies neoliberal attitudes continue to prevail in the mainstream of Polish economic sciences. Lack of political will to implement new institutions that would protect the job market, monitor and control the global financial market for the purposes of restricting the growth dynamics of income and asset inequalities is not perceived.

It is therefore the primary objective of this paper to present arguments for rapid introduction of at least two new global economic institutions as suggested by Guy Standing, professor at the University of London, and Thomas Piketty, professor with the Paris School of Economics. Effectiveness of actions for developing practical implementation of these institutions is evaluated in the conclusion.

## Precariat and universal basic income

Neoliberalism in conditions of globalisation has created a model of society based on various levels of citizenship. Apart from full members of national communities, there are a number of individuals with heavily limited access to rights or even groups utterly deprived of any entitlements. Guy Standing calls the latter ‘denizens’, as opposed to card-carrying citizens. It is among the ‘citizens’ that a new social class, ‘precariat’, is clearly emerging. It consists of workers in unsteady jobs, whose work is interwoven with periods of unemployment. They keep living in uncertainty as to their access to housing and public resources, with a constant sense of precariousness. They have forfeited their right to a reliable legal process, especially with regard to employment and welfare benefits. They commonly have no political rights as they cannot vote (e.g. immigrants) or do not exercise them (youth, ethnic and social minorities). As long as the precariat is limited or split, politicians have no electoral interest in seeking its favours. As far as cultural rights are concerned, governments demand greater adjustment to social standards and majority institutions from the precariat. Precariat has no economic or social rights, either, particularly in respect of access to state services and professional qualifications.<sup>9</sup>

Instability of paid employment is key to global capitalism. Multinational capital not only desires but is capable of maintaining flexible and uncertain jobs in every part of the world. In the conditions of global market economy, attempts at restricting this instability in any one country will fail. The twentieth-century labour protection (legislation, collective negotiations, system of welfare security) was constructed around the image of a stable and permanent workplace, fixed working days and weeks. Today this applies to a minority of workers, with the entire precariat squeezed outside.

<sup>8</sup> Peszko A., *Powszechny dochód podstawowy i progresywny podatek od kapitału – iluzje czy realne czynniki rozwoju gospodarki globalnej*, /In:/ *Doskonalenie działalności przedsiębiorstw i instytucji wobec przemian społeczno-gospodarczych. Innowacje – Finanse – Otoczenie biznesu*, Ed. by: J. Kaczmarek, P. Krzemiński, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Cracow 2017, pp. 119-136.

<sup>9</sup> Standing G., *Karta prekariatu* ..... , op. cit., p. 25.

It was typical for workers to be paid only money wages at early stages of industrial capitalism. In the 20<sup>th</sup> century, the trend shifted to a growing share of income from social, firm and state performances. A reverse trend applies to the precariat now. Sources of income other than remuneration have virtually vanished. The change is structural. The precariat has no right to paid holidays, medical leaves or company pensions. They are not eligible for state benefits subject to certain legal requirements, either. As a consequence, they remain dependent on uncertain, discretionary benefits.

No access to income from profits or annuities is another distinguishing feature of the precariat's position. Groups higher up in the class hierarchy derive substantial and growing parts of their income from capital in one or more of its forms. The precariat class lacks a professional identity or a narrative that would provide a framework for their lives. This leads to frustration, alienation, fear and despair. The precariat are expected to be constantly ready to work, both paid and not (requalification, CV refreshing, filling questionnaires, debt juggling, etc.). They are exploited and their private time is shrinking to an unprecedented extent. In effect, 'the precarious' are more inclined towards psychological distance to paid employment. They are only involved temporarily and treat it instrumentally.

The precariat are extremely unlikely to advance socially. The longer one is part of it, the less chance they stand of escaping. The precarious rarely take advantage of more than a fraction of their skills and abilities as part of their paid work. High qualifications only allow participation in the job market lottery. In many cases, you need to have parents with contacts or qualifications far greater than will ever be required in a job in order to get more interesting work. Ironically, these problems escalated at a time the concepts of knowledge organisation and management were promulgated in management sciences. According to these theories, people, and their inherent creativity, are the most important factors of an organisation's success.

The precariat is not only exposed but also less resistant to more areas of uncertainty than other social classes. They have fewer resources to help them deal with uncertainty. The poverty 'trap' is particularly dangerous. The welfare state is based on compulsory insurance and benefits tied to regular premium paid by steady employees or employers on their behalf. The model began to disintegrate as the precariat emerged. Welfare states moved towards aid to the poorest, dependent on their funds. Welfare policies have been tasked with identifying the poor by verifying assets at their disposal, therefore. A dangerous poverty trap has been set for the precariat in this way. Each recipient of means-tested benefits may forfeit benefits as soon as they take low-paid, temporary work, as if they became subject to 100% taxation. As resignation from welfare for gainful employment costs time and money, there is no reason to start working. Millions of the precarious in industrial countries experience effective taxation above 80%, that is, double that of a full citizen and at least three times as high as the one that would be due from multinational corporations if they did not divert their profits to tax havens.<sup>10</sup>

Incidence of 'precarious traps', namely, situations where taking low-paid jobs may reduce income in future, increases as well. The state requires the precariat to do a lot of work to gain entitlements to welfare benefits, to go through an interminable range of selections, each a separate barrier to overcome. Their life revolves around waiting in queues, filling forms, supplying more documents, reporting for interviews and answering tricky questions. Accepting a low-paid job that may end at any moment means assuming the risk of returning to point zero – applying for benefits. No sane person would take such a job in similar circumstances, whereas the precariat is forced to.<sup>11</sup>

Standing believes the underlying cause of all these processes were the irreversible economic globalisation and the associated 'great convergence'. It commenced slowly between 1960 and 2000, when around 20 low-income countries developed faster than the United States and Western Europe. Standing cites a range of statistics to corroborate the thesis. He stresses growth of as many as 80

<sup>10</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 33.

<sup>11</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 34.

countries had overtaken the global economic leaders and bridged gaps in living standards after 2000. China with more than a billion population emerged as a global giant. Productivity of that country grew by an annual average of 9%. Production requiring 100 workers in 1990 was carried out by a mere 20 in 2009. In 1990, Chinese exports were a third of America's, whereas China became the largest exporter worldwide in 2009. Investments flooded emerging market economies and corporations became global. In 1990-2000, sales by foreign branches of transnational corporations increased six times, their assets twelve times, exports four times, and headcount more than trebled.

Employees in rich countries found themselves in trouble, wages of medium and low-paid working classes declined. The share of work in national income of OECD countries fell by 5% between 1980 and 2008. That share in the US decreased from 53% in 1970 to 45% during the credit crunch, to shrink even further, to 43.5%, by the end of 2012. The declining trend of wages in GNP was global. For instance, the ratio of work income to value of output in China declined from 48% to 42% from mid-1990s to the middle of 2000s. In India, it had dropped from 37% to 22%. The positive correlation between productivity and wages began to disappear as early as the 1980s. A real gap yawned after 2000. An unwritten social contract of the post-war era, according to which real-terms wages were to grow in line with productivity growth, was breached in this manner. Capital no longer needed that compromise in the globalised economy.<sup>12</sup> As wages declined and flexibility of work made life less certain, governments tried to save the day with cheap credits and subsidies. The turning point came in 1992, when the American government made house crediting cheaper and more accessible. That brought short-term political advantages to the then president Clinton. However, the issue of economic equilibrium was exacerbated in the long term. The sum total of US credits rose to US\$ 50bn in 2007, that is, 50 times higher than in 1964. Other countries followed suit, though. Number of households owning their houses in the UK grew from 57% in 1981 to 71% in 2003, whereas wages of the lowest income groups stagnated or flagged. Spanish banks were encouraged to issue mortgage crediting up to 100% of property values even to lowest-income employees and immigrants. In Ireland, on the other hand, a credit could account for 115% of a property value.<sup>13</sup> That was bound to lead to the global credit crunch of 2007 – 2008. Its effects deepened global inequalities between the richest and the poorest to a frightening degree.

The global growth of capital mobility is even clearer in the new economic model, where structural corporate divisions are accompanied by a move from trade in finished goods to trading in tasks and parts of commodities, that is, to market value creation within a network of enterprises. Increasing numbers of corporations are integrated at the global level. As a result, they are able to juggle production and employment depending on market changes and local costs of production. For instance, making of a Boeing Dreamliner involves 43 suppliers at 135 locations worldwide, with 70% of its components manufactured abroad. Swedish Ericsson mobiles consist of 900 components from 60 suppliers in 40 countries. A typical Swedish car includes at least 50% parts produced out of that country.<sup>14</sup> It should be noted Standing, fascinated by the dramatic rise in capital mobility on the global scale, failed to appreciate the impact of new technologies and digitalisation on falling employment in manufacturing processes. This is an additional argument for his postulate to introduce the universal basic income.

Standing begins introducing his concept by saying: '*Governments should tend towards instituting the basic income as a civic right. Uncertainty and inequality in the global market economy can only be aggravated if new solutions are not introduced. A thorough restructuring of the welfare system is necessary.*'<sup>15</sup> In the traditional capitalist economy, a clear-cut division into wages and capital gains was in place. National governments were intermediaries in the struggle between labour and capital owners

<sup>12</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 44.

<sup>13</sup> Standing G., *Karta prekariatu* ....., op. cit., pp. 44-45.

<sup>14</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 53.

<sup>15</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 322.

by applying a variety of regulations (taxes and subsidies). In conditions of globalisation, income from rent and financial capital rises dramatically. We must change our economic imagination and accept the right to payment of a guaranteed basic income (a monthly sum sufficient to provide each legal resident with basic security) is inevitable. Without this right, uncertainty, debt, and inequalities will continue to escalate.

Standing uses the term 'basic' in two senses. On the one hand, such income should be basic, i.e. sufficient to live, yet without providing full security, as that would invite recklessness. 'Basic' means, on the other hand, other rights, e.g. to education or work, cannot be realised without the income. The amount of basic income should be enough to cover basic needs and foster aspirations to other objectives. Its level should be tied with median income, therefore.

The universal basic income should be paid out to each individual regardless of notions like household or family, as that would imply intrusive and costly administrative mechanisms. The payments should be effected in cash, on a regular, predictable and unconditional basis. Thus, the payment should be a civic right, possibly limited by a pragmatic rule applied to migrants. Payments of basic income must be universal and recovered from those more wealthy by means of taxation.

Payment of the universal basic income rising in line with economic growth is a key point. To begin with, current welfare benefits may be gradually transformed from the existing selective transfers to unconditional grants, to be extended to the remaining groups in time.<sup>16</sup>

The basic income is the only solution improving economic and social security of groups most deprived of protection. It also does not impose any added control on any particular social group. Thus, it enhances individual freedom and is distinctly better than traditional charity. It prevents free-wheeling bureaucratic decisions about who should be supported and whose conduct deserves compassion and whose sanction.

The very process of economic globalisation provides the most convincing economic arguments for introducing the universal basic income. As part of this process, more flexible relations of employment go hand in hand with dismantling institutions and mechanisms of social solidarity and welfare protection. There is no turning back from this process. The national insurance system worked, a majority were able to make their contributions to the insurance fund and people were roughly equally likely to incur misfortunes. These conditions were ruined by proceeding economic and political changes. Individualism and flexibility made outcomes even more unequal and social mobility declined. Shares of wages in national incomes of all countries continue to shrink, labour and those outside the workforce are unable to pay regular and sufficient contributions. Raising low wages by means of tax reliefs is costly, deforming reality, unjust and forcing continual divisions into the rich and the poor. The universal basic income would be free from these characteristics. It would be universal.

Most importantly, introduction of the universal basic income should assure more effective and just operation of job markets. This primarily depends on the purchasing power of capital owners, who function as employers, and of weak employees, after all. Given high unemployment and uncertain income support, standing of employees is hopelessly fragile. Employers find it easy to make profits by setting low wages instead of caring for proper remuneration for their workforce. Without the universal basic income, employees are ready to accept any job to be paid some money, while looking around for something else. In the event, effectiveness of worker allocation is low, staff turnover high and negative responses in the workplace common. The basic income would protect against uncertainty and shocks, encourage people to take risks of actions that could potentially improve quality of their lives. Standing puts it clearly: *'If you know you won't end up in the street in case of failure, you are more willing to take the risk of acquiring new skills or abandoning jobs that offer no prospects to try your luck as an independent craftsman.'*<sup>17</sup> He also stresses *'the basic income should not be discussed without considering*

<sup>16</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 124.

<sup>17</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 339.



*desirable features of the entire welfare system based on compassion, solidarity and empathy instead of control and punishing the poor. The basic income should be understood as the foundation of a multilayered system suited to the 21<sup>st</sup> century realities.*<sup>18</sup>

### **Progressive capital tax, accounted for globally on an annual basis**

Vestigial forms of capital taxation already exist in most countries of North America and Europe. Capital control instruments in China and other emerging countries also teach economists a number of useful lessons. There is an essential difference between the solutions in place and the capital taxation proposed by Thomas Piketty. His ideal capital tax cannot be separated from issues of financial transparency and fully open information, automatically shared by banks on the global scale.

The projects of automatic exchange of bank information debated at present are far from complete, particularly with regard to the assets they cover and sanctions envisaged. Even the new law introduced in the US (Foreign Account Tax Compliance Act – FATCA) fails to meet Piketty’s requirements, although it is clearly more ambitious than modest European Union regulations.

Piketty believes both fiscal and motivational logic speak for persistent attempts at introducing progressive capital taxation. The fiscal arguments arise from the experience of income being rarely well defined in the case of individuals holding very substantial assets. Only direct capital taxation helps to properly identify tax capacities of owners of large fortunes. Capital seems a better indicator of real tax capacities of the richest, whose stated income is clearly out of proportion to their assets. Motivational logic is frequently emphasised in public debates as strongly. It assumes capital taxation may motivate asset owners to extract maximum possible returns on their capital. This would counteract the extremely worrying ‘striking capital’, which involves holding money in tax havens instead of investing it in real economic processes. The motivational mechanism rests on the assumption a tax equal to 1 or 2% of a fortune is relatively low for owners of highly profitable undertakings that guarantee returns of 10% per annum. Conversely, such taxation would be very burdensome on someone achieving returns of merely 2 or 3% a year or holding their capital in tax havens without generating any returns. It would force someone making poor use of their assets to dispose of them to pay taxes and thus to sell their assets to more dynamic owners.

Piketty’s ultimate objective is to introduce an annual progressive tax levied on capital individually, that is, on net assets controlled by an individual. When describing the proposed tax, he states *‘for everyone, taxable assets would be determined on the basis of market value of all financial (in particular, bank deposits and accounts, shares, bonds and stock of any nature in publicly quoted and other companies) and non-financial (especially real estate) assets less debt incumbent on a given person. As far as a scale of taxation is concerned, a 0% rate below €1m, 1% for property between €1 and 5 million, and 2% for assets above € 5m could be imagined. A far more progressive taxation of the largest fortunes could be contemplated (for example, 5% or 10% above €1bn), however. There are also possible benefits of some minimum rates on modest and medium-size assets (e.g. 0.1% below € 200 000 and 0.5% between € 200 000 and 1m).*<sup>19</sup>

Capital tax is not going to replace all fiscal revenue and may account for several per cent added to national income of a present-day welfare state. Its principal role consists in ‘regulating capitalism’<sup>20</sup>, that is, prevention of an unending spiral of inequalities and property stratification on the one hand, and effective regulation of financial crises, on the other hand.

<sup>18</sup> Standing G., *Karta prekariatu* ....., op. cit., p. 340.

<sup>19</sup> Piketty T., *Kapitał w XXI wieku*, Krytyka Polityczna, Warsaw 2015, p. 646.

<sup>20</sup> Piketty T., *Kapitał* ....., op. cit., p. 648.

Before the ultimate objective can be achieved, it is pressing to realise the intermediate goal of democratic and financial transparency of wealth and assets on the international scale. This would help to collect information about properties and fortunes. National and international administrations, American, European and global statistical institutes would be capable of supplying reliable information on distribution and evolution of properties. A calm debate about key issues of the contemporary world is necessary. Such a debate is impracticable without a reliable statistical database, though. Piketty describes the current condition of this database as follows: *‘International organisations charged with regulating and supervising the world financial system, starting with the International Monetary Fund (IMF), have only approximate knowledge of the worldwide distribution of financial assets, in particular those deposited with tax havens. The available statistics imply the global balance of assets and liabilities is not in equilibrium and the Earth seems to be in debt, but no-one knows where – on the Mars perhaps? Effective navigation of the global financial crisis in such a statistical fog is heavily impeded’*<sup>21</sup> or simply impossible.

A capital tax requires more specific and expanded contents of international agreements on automatic exchange of banking information. The principle should be simple: each national fiscal administration should receive all information needed to calculate net property of each of its citizens. The first step involves escalating the automatic sharing of information to the international level. This must allow for inclusion of assets abroad in ready-made statements. This is not a technical issue, since if such automatic data exchanges between banks and fiscal administrations take place in the United States with a population of 300 million or France and Germany with populations of 60-80 million, adding banks based in Switzerland or the Caymans to the system does not substantially alter the quantity of information processed. Tax havens most likely defend the bank secrecy to help their customers avoid paying due tax and themselves to retain the associated profits. This has nothing to do with principles of the market economy as *‘There is no law allowing you to set your own rate of tax. You can’t get rich on free trade and economic integration with your neighbours to derive profits at their expense afterwards. This can be called ordinary theft.’*<sup>22</sup>

## Conclusion

A universal, unconditional basic income stands genuine chances of being applied. Similar programmes are already in place worldwide, for instance, the American Alaska Permanent Dividend, a hybrid between basic income and capital subsidy. Each inhabitant of Alaska is paid an annual dividend out of the Permanent Fund established in 1976.<sup>23</sup>

Standing is troubled by the fact politicians are generally anxious about awarding the right to economic security to everyone. Even those believing it is commendable are paralysed with fear of being condemned by moralists for lack of realism or utopian tendencies. Attempts at overcoming this fear have been undertaken by a dedicated international organisation Basic Income Earth Network, operating effectively in a number of countries. It has collected signatures for the European Civic Initiative applying to the European Commission to conduct research into the potential for introducing basic income and initiation of pilot programmes, for example. In 2013, more than 285 000 signatures were gathered for the petition. 1 million need to be collected in seven countries during a year for the European Commission to recognise it, however.<sup>24</sup> Switzerland is the most advanced on this path. A referendum on payment of basic income to each citizen has already been held there, though with a negative response. An experiment has been

<sup>21</sup> Piketty T., *Kapital* ....., op. cit., p. 649.

<sup>22</sup> Piketty T., *Kapital* ....., op. cit., p. 653.

<sup>23</sup> Standing G., *Karta* ....., op. cit., p. 339.

<sup>24</sup> Standing G., *Karta* ....., op. cit., p. 344.

continuing in Finland, where a selected group of the unemployed have been paid €560 a month since January 2017. The purpose is to verify whether such an injection of funds will make workers lazy or, on the contrary, mobilise them to look for better paid jobs. Results of the Finnish experiment will be available in 2019. Similar exercises are reported in the Netherlands and Italy.<sup>25</sup> Introduction of unconditional basic income to some rich countries is only a question of time, therefore.

An interesting prospect for a pilot introduction of basic income in Germany has emerged lately. Professor Thomas Straubhaar (lecturer of international relations at the Hamburg University) has proposed introducing an unconditional basic income of ‘€1000 for Everyone’ in his book *Radically Just*. His thoroughgoing and consistent proposal is first of all motivated by the fact the German state already spends €900bn a year on welfare (including subsidies to the pension system). This would be sufficient for monthly payments of more than €900 to 82 million Germans. Second, effects of digitalisation, automation and robotisation are already palpable in the German job market, with the trend set to cut deeper than in other countries due to technological advancement of the industry and innovativeness of the entire economy. Straubhaar’s proposal involves a complete restructuring of the tax system and liquidation of pension contributions. The existing pensions would continue to be paid in the interim period only. Solely a fairer income tax would remain in place, without any exceptions and paid directly at source on each euro earned. Only the unconditional basic income would be exempt from the new tax, while all work income, capital gains, royalties, dividends and revenue from lease or rental would be subject to the same rate of taxation.<sup>26</sup>

Introduction of full compulsory sharing of banking information globally and the consequent progressive capital tax seem less likely in the foreseeable future. The American Foreign Account Tax Compliance Act (FATCA), adopted in 2010 to be gradually introduced in 2014 – 2015, is the most advanced attempt at introducing the duty of international banking information. It charges all foreign banks with the duty of supplying the US fiscal authorities with information on accounts, deposits and income held and received by American citizens worldwide. Current press reports indicate the law has not been blocked by the new Republican administration of President Trump and intensive training on its implementation is under way.

The 2003 European Union directive is dramatically less ambitious as it sets the duty of disclosing bank deposits and investments paying interest to financial authorities. It only applies to the EU countries. By definition, therefore, it fails to cover assets other than bonds, whereas large fortunes are commonly portfolios of shares. Added to all that, the directive is not in full effect yet. Luxembourg and Austria have continued to extend their periods of grace, thus avoiding compulsory automatic data exchange, and provide relevant information only on request and where reasonable. The system, also applicable to banks in Switzerland and other European territories outside the EU (Liechtenstein, Monaco, and the Channel Islands) means in practice a government is required to present virtually solid evidence of their citizen’s fraud in order to obtain banking information.<sup>27</sup> Surprisingly, the European countries have been able to form a unified EU and even introduce the common currency but have done nothing about their tax systems, with prospects of any substantial changes still very slim.

On the global scale, the issue is still open and a capital tax is treated as a new concept to be worked out in detail. The fact no-one takes actions to implement other institutions to assure transparency of the globalised asset capitalism of the 21<sup>st</sup> century is worrying, though.

<sup>25</sup> Woś R., *Praca powraca*, POLITYKA nr.17/18, Warsaw 2017., p. 52.

<sup>26</sup> Kowanda C., *1000 euro dla każdego. Rozmowa z ekonomistą prof. Thomasem Straubhaarem o tym dlaczego dochód podstawowy to pomysł na wskroś liberalny, który wywoła rewolucję podatkową a nawet zastąpi emerytury*, POLITYKA nr. 37, Warsaw 2017, pp. 36-38.

<sup>27</sup> Piketty T., *Kapitał ...*, *op. cit.*, pp. 653-654.

## Bibliography

1. Kowanda C., *1000 euro dla każdego. Rozmowa z ekonomistą Thomasem Straubhaarem, o tym, dlaczego dochód podstawowy to pomysł na wskroś liberalny, który wywoła rewolucję podatkową, a nawet zastąpi emerytury*, POLITYKA, nr. 37, Warsaw 2017.
2. Peszko A., *Powszechny dochód podstawowy i progresywny podatek od kapitału – iluzje czy realne czynniki rozwoju gospodarki globalnej*, /In:/ *Doskonalenie działalności przedsiębiorstw i instytucji wobec przemian społeczno-gospodarczych. Innowacje – Finanse – Otoczenie biznesu*, Ed. by: J.Kaczmarek, P. Krzemiński, Fundacja Uniwersytetu Ekonomicznego w Krakowie, Cracow 2017.
3. Peszko A., *Rynki finansowe w mechanizmie nadzoru korporacyjnego*, „Studia Prawno Ekonomiczne” tom. XCI/2/2014, Łódzkie Towarzystwo Naukowe, Lodz 2014.
4. Piketty T., *Ekonomia nierówności*, Krytyka Polityczna, Warsaw 2015.
5. Piketty T., *Kapitał XXI wieku*, Krytyka Polityczna, Warsaw 2015.
6. Rifkin J., *Spółczesność zerowych kosztów krańcowych. Internet przedmiotów. Ekonomia współdzielenia. Zmierzch kapitalizmu*, Studio Emka, Warsaw 2016.
7. Standing G. *Karta Prekariatu*, PWN, Warsaw 2015.
8. Stiglitz J.E., *Cena nierówności. W jaki sposób dzisiejsze podziały społeczne zagrażają naszej przyszłości*, Krytyka Polityczna, Warsaw 2015.
9. Stiglitz, *Szalone lata dziewięćdziesiąte Nowa historia najświetniejszej dekady w dziejach świata*, PWN, Warsaw 2006.
10. Woś R., *Praca powraca*, POLITYKA, nr.17/18, Warsaw 2017.

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# THE EUROPEAN DIRECTIVE OF DISCLOSURE OF NON-FINANCIAL INFORMATION: ITALIAN EVIDENCES<sup>1</sup>

## *Summary*

*Reporting obligation is no longer considered sufficient. Voluntary communication is becoming more and more popular responding to actual needs of stakeholders. Voluntary information is often associated with the concept of social responsibility and, business communication becomes an integral part of the business strategy.*

*Companies report their socio-environmental performance by adopting various national and international standards and this does not guarantee uniformity on the information provided.*

*The EU intervened with a directive to facilitate the transition from voluntary reporting to a mandatory.*

*The purpose of this paper is to understand the mechanism activated by the EU with the Non-Financial Reporting Directive of large firms and wonder if Italian companies are ready to transpose this directive.*

*A study has been conducted on listed companies on the stock exchange FTSE/MIB, taking into account the latest sustainability reports published volunteers, to analyze their content and respond to what is required by Legislative Decree no. 254/2016 on the implementation of the directive.*

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## **Introduction**

Individuals have a consciousness and decision-making ability, assuming responsibility with regard to those around them and even companies become an integral part of the context in which they operate.

Although the market economy can be efficient in the field of allocating resources, it is less in terms of equity. The rules of law which regulate the market are not sufficient to ensure sound business economy. Ethics allows us to evaluate the morality of the market, the norms of law and the demands of the company; encouraging the loyal behavior of the companies. Morality is a set of principles that guide our way of acting, allowing us to distinguish what is right from what is wrong. Ethics is nothing but its practical application. In the twenty-first century they assume relevance is the social, environmental and ethical

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<sup>1</sup> This paper is the result of a joint effort of all the authors. However, Luisa Pulejo contributed with paragraph 2, Valeria Naciti contributed with paragraphs 3, 4, 5 and 6 while Nicola Rappazzo wrote paragraph 1.

dimensions of the entrepreneurial sector. It reduces the dominant aspect of profit and increases the need for enrichment from the social, cultural and environmental point of view together with their community.

The law is imperfect and inadequate: even when it is excellent, it has a static character by its nature and therefore it is difficult to respond to the real present needs and above all to the needs of the citizens. And it is in this context that ethics drives companies to one proactive attitude, overcoming compliance with applicable laws and choosing strategies in which decisions are the result of more responsible choices. In the era of globalization we talk about sustainability of development, which cannot be sustainable if companies also are not. They are sustainable if they are concerned about the interests of the stakeholders from a long term perspective, and this imposes ethical rigor and attention to the natural environment and the social context.

Social responsibility, which involving the voluntary action of the enterprise beyond of what is prescribed by the law, to achieve social and environmental objectives can help build trust in companies, a factor considered of fundamental importance for the development of the market economy in the EU.

The European commitment to promoting social responsibility continues with the promulgation of Directive 95/2014/EU on non-financial reporting, which requires the companies to disclose information on the management of socio-environmental issues with the aim of strengthening the transparency and accountability level of European companies and identify them socio-environmental risks, raising the level of trust by investors and stakeholders.

## Theoretical Framework

In the early 1970s studies on Corporate Social Reporting were introduced (Mathews, 1997). Quickly, the interest on social reporting grew and with it also grew the need for clearer and more transparent communication between companies and stakeholder. This process of enhancing transparency in company and stakeholder relations highlighted the importance of social accountability tools.

There are different studies that investigated the relationship between Social Accountability and firms profitability, board composition, size and the quality of performances (Bhattacharyya, 2014; Romolini et al., 2014; Hahn & Kuhnen, 2013; Kolk, 2008; Sa de Abreu et al., 2012; Krumwiede et al., 2012; Li & Xiang, 2007; Adams & Kuasirikun 2004).

In the field of companies communication, an important role is covered from the economic-financial communication, which favors the learning of the management results, asset and financial aspects of the company, communicate to comply with regulatory obligations, or favor the sharing values and business strategies with markets and investors. This area of communication contributes to strengthening relationships with the stakeholders to ensure the development and survival of the enterprise.

Economic and financial communication takes a strategic role, thanks to the awareness of the companies, the potential they can have effective communication, and it is for this reason that the enterprise has to be able to realize a system of transmission of information that is to same effective and efficient time, reaching the various interlocutors and meeting their informative needs.

Voluntary communication is increasingly spreading because the obligatory communication is quite deficient and insufficient to answer the actual information needs of the recipients.

Although in the last few decades the interest of the academic and entrepreneurial world has grown considerably, it has not yet been possible to identify a commonly accepted theoretical reference that can certainly seek and fulfill the determinants underlying the reporting activity of social and environmental business.

Moreover, what has just been highlighted can well be inferred from many scientific contributions on the subject. In these studies it is possible to trace the presence of different theoretical perspectives in support of the adoption of appropriate sustainability reporting tools by companies. These include the agency theory, the legitimacy theory and the stakeholder theory. The agency theory has been defined

to explain the relationship between the principal and the manager. In this sense, a perfect corporate governance system should provide managers with the right incentives to make all investment and financing decisions in order to maximize value (Dallochio M. & Tamarowski C. 2005)

Suchman (1995) considers that *“Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.”*

Finally, the stakeholder theory was elaborated by Freeman in 1984, where his book “Strategic management, stakeholder approach”, defines stakeholders as a group or an individual that can influence or can be influenced by achieving the goals.

The author was the first to propose a new vision of the organization; the company has direct connections with all interested parties. Authors like Donaldson and Preston(1995) point out that the stakeholder model formalized by Freeman contrasts with the traditional input-output enterprise model. Investors, employees and suppliers are no longer actors they provide to the company inputs to turn out a customer benefit.

The relationships between the organization and the stakeholders are mutual. Each stakeholder expects different things from the same company, and not everyone is priorities in the same way.

## **The European Directive**

With the publication on G.U. n. 7 of 10 January 2017 of Legislative Decree no. n. 254/2016 has been implemented the Directive 2014/95/EU which almost transposes the contents of the Community directive, but also introduces important innovations such as risk assessment; verification and control of non-financial information; the possibility for companies that do not fall under the norm to voluntarily adapt to content; the introduction of sanctions.

This Decree introduces the obligation to report a non-financial document within the management report.

*“Large undertakings which are public-interest entities exceeding on their balance sheet dates the criterion of the average number of 500 employees during the financial year shall include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking’s development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters, including:*

- a) *a brief description of the undertaking’s business model;*
- b) *a description of the policies pursued by the undertaking in relation to those matters, including due diligence processes implemented;*
- c) *the outcome of those policies;*
- d) *the principal risks related to those matters linked to the undertaking’s operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks;*
- e) *non-financial key performance indicators relevant to the particular business”*<sup>2</sup>.

This provision also applies to parent companies that draw up a non-financial consolidated statement.

The decree also provides that companies not included in the law may draft voluntary non-financial statements in accordance with the provisions of the law<sup>3</sup>.

<sup>2</sup> Art.19 a d.lgs. n. 254/2016

<sup>3</sup> Art.7 d.lgs. n. 254/2016

Regarding the content that companies must communicate, the decree completely transposes the directive. The non-financial statement must cover environmental, social, personnel-related issues, respect for human rights, the fight against active and passive corruption, which are held relevant to the company's business and characteristics. The statement has to contain also the information necessary to understand the company's business management and organization model; the policies followed by the company, including those of due diligence, the results achieved through them and their non-performance performance indicators financial; the main risks generated or suffered by these issues and that derive from the business, its products, services or relationships including the supply and subcontracting chains where they come from considered relevant<sup>4</sup>.

The legislation lists the minimum domains that are required for them companies to report their activities and performance:

- use of energy resources, distinguishing between sources produced renewable, and the use of water resources;
- greenhouse gas emissions and polluting emissions in atmosphere;
- the present and presumed impact of risk factors on the environment, health and safety;
- social aspects related to personnel management, including actions put in place to ensure gender equality, measures aimed at implement the conventions of international and supranational organizations on the subject, and the ways in which dialogue with the parties is conducted social;
- respect for human rights, measures taken to prevent their violations, as well as actions taken to prevent attitudes and actions discriminatory;
- Combating corruption is both active and passive with the indication of instruments adopted for this purpose<sup>5</sup>.

The non-financial statement, both on an individual and consolidated basis, must be drawn up on the basis of a recognized national and international reporting standard. If a self-reporting methodology is used, the statement must contain a clear and detailed description of the methodology.

The decree has also made changes to the governance model through an amendment to D.lgs. n. 58/1998, with which it was made compulsory description of corporate policies on diversity. A description of the diversity policies applied in relation to the composition of the boards, regarding aspects such as age, gender composition, professional training, as well as a description of the objectives, how they are implemented and the results of such policies.

While in Italy with Legislative Decree 254/2016 for the first time introduced a compulsory reporting scheme, other Member States had already introduced some regulations.

Denmark under the CSR Action Plan 2008-2012. Sweden since 2009, Swedish public companies (at least 50% of the state) have to prepare a Sustainability Report according to the GRI guidelines. In 2011, Spain issued a law on non-financial reporting covering only a few particulate categories of companies. In 2012, France issued a decree on the reporting of listed and unlisted large companies.

On 13 January 2017, only 19 Member States (Austria, Hungary, Bulgaria, Lithuania, Croatia, Luxembourg, Czech Republic, Malta, Estonia, Denmark, Finland, Poland, Greece, Romania, Slovakia, Great Britain, Sweden, Italy, Latvia, and France) appeared to have transposed the Directive into their national system.

There are several studies on the effects of directive on Italian listed companies. The analysis conducted by EY research on the transposition of Barnier Directive on Italian companies is based on 110 companies subdivided into sector and macro-sector.

The survey reported that in 2014 only 48 companies published a Sustainability Report or an Integrated Report; 12 companies have included sustainability information exclusively in the management report,

<sup>4</sup> Art. 3 c. 1 d.lgs. 254/2016

<sup>5</sup> Art 3. c. 2 d.lgs. 254/2016



and 50 companies do not report their sustainability performance. Of these companies who choose to draft a sustainability document, 90% follow the GRI standard and 70% choose to submit it for independent review<sup>6</sup>.

Other studies from Osservatorio Socialis analyzed the impact of the “non-financial and diversity information” on the reports of listed companies conducted from the analysis of 134 listed companies on the Stock Exchange that have a number of employer over 500. This survey has highlighted that only 40% of companies are ready to respect the requirements of Legislative Decree 254/2016, while the remaining 60% still have a lot of work to do<sup>7</sup>.

## Sample and Data Collection

The sample for the analysis includes companies listed on the Italian Stock Exchange: this type of business is in fact the one to which Law no. 120/2011 is intended. In addition, due to the obligation to publish corporate documents for this type of company, it will be possible to find the data online necessary for the research.

Companies were selected on FTSE-MIB. It is the leading benchmark index for the Italian stock markets, which captures 80% of the domestic market capitalization and is comprised of companies of prime importance and high liquidity in the various ICB sectors (industry classification benchmark). It measures the performance of 40 Italian companies, and it is on these companies that the survey is based, taking into account the two-year 2015-2016.

To create the database, information were collected directly from the “Borsa Italiana” website [www.borsaitaliana.it](http://www.borsaitaliana.it), where there is a section dedicated exclusively for each company. From the home page, we selected the company from which we wanted to extract the data. In the “Company Profile” section, clicking on “Reporting” or “Sustainability” we found the sustainability reports. From this section, whenever possible, we extracted data regarding the type of companies, the standard uses for the sustainability reporting and the existence of independent accounting firm’s review.

In cases where the necessary information will not be available following the above procedure, it will be necessary to consult the websites of the companies. Following this data collection scheme, it will be possible to obtain all the functional information to the dataset.

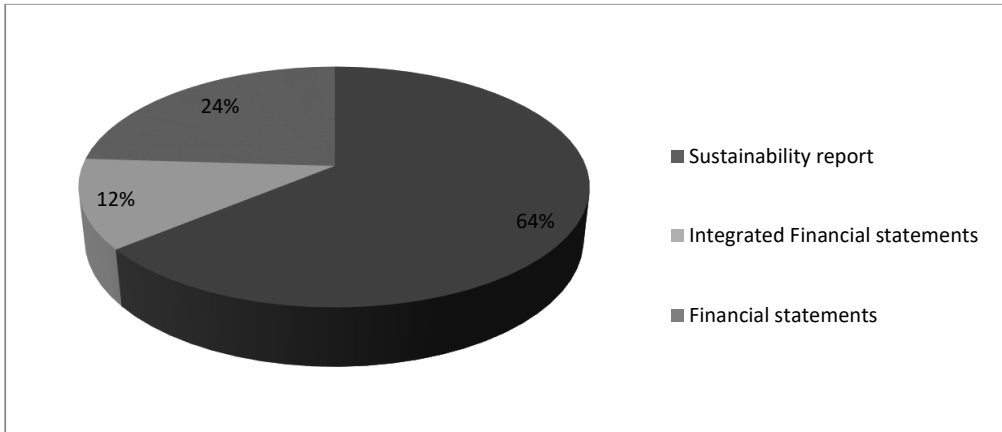
## Results

The purpose of the survey is to understand how many of the companies already report the CSR and whether they are ready to face the obligation to report compulsory non-financial information from 1 January 2018 for the years ended 31 December 2017. Analyzing the 40 listed companies, it emerged that 64% published a sustainability report; 12% publish the Integrated Financial Statements; while 24% do not publish a sustainability report (Fig. 1).

<sup>6</sup> For further details, see “La direttiva Barnier sulle informazioni di carattere finanziario: il livello di preparazione delle aziende italiane. Risultati della ricerca svolta da EY”, [www.eticanews.it](http://www.eticanews.it)

<sup>7</sup> Venturelli A., “L’impatto della direttiva non financial and diversity information sui bilanci delle società quotate”, [www.osservatoriosocialis.it](http://www.osservatoriosocialis.it)

Figure 1: Type of document published by sample companies



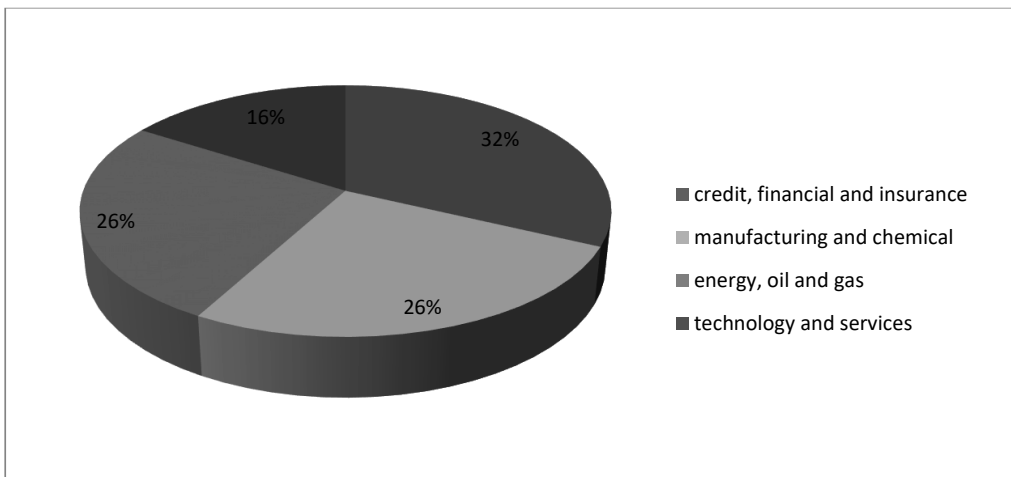
Source: our elaboration

It's fairly clear that 76% of the companies that we are considering are already active on the non-financial reporting front.

We divided the companies grouping them by four sectors. It was found that: 37% operate in the credit, financial and insurance sectors; 28% in the manufacturing and chemical industries; 20% in the energy, oil and gas sectors; and the remaining 15% in technology and services.

After that we subdivided companies by sector, we taking into account only those that published a sustainability report or integrate financial statement. This analysis showed that (Fig. 2): the Sustainability Report is drawn up in the credit, financial and financial sectors insurance for 32%; in the manufacturing and chemical industries by 26%; in the energy, oil and gas sectors by 26%; in the field of technology and services for 16%.

Figure 2: Companies' sector



Source: our elaboration

Analysing in depth their content it can be seen that the document of non-financial reporting is prepared in accordance with GRI.G4 guidelines.

Reports also take into account the UNI EN ISO 26000 guidelines for the social responsibility of organizations, AA1000APS standard of Accountability, and the ABI guidelines for those operating in the industry banking and insurance.

The Sustainability Report of examined enterprises can be divided into three aspects. Firstly, identity and governance, where there are mission and values company history, group history, business model and lines strategic development and sustainability, the organizational structure, the corporate governance, voluntary codes, and internal control systems. Secondly, economic conduct, where there are key financial indicators, economic performance and calculation added value and its distribution.

Thirdly, social report, where the company's report is described with its stakeholders: customers, distribution network, human resources, shareholders and investors, suppliers, communities, and the environment.

Moreover, from the analysis emerged that the 81% of the companies analyzed submitted their Sustainability Report to an independent accounting firm. Documents under independent review followed the standards of ISAE 3000 review. Through the review of this document is confirmed the capacity of the organization to identify the topics on which sustainability is focuses and whether the actions and policies implemented are able to meet the needs of stakeholders, ensuring stability and development of organization.

## **Conclusion**

Companies do not only act for profit, but they understand the importance of combining economic and socio-environmental aspects with positive effects on the market competitiveness and reputation and with the consequence that non-financial reporting represents a moment of strategic business.

The choice to adopt social reporting tools like report of sustainability and integrated reporting represent a voluntary decision for a company, through which it shows the behaviours taken against them of the stakeholders on the issues addressed, it shows how it intends to cope with risks and opportunities difficult to appreciate in monetary terms but necessary to achieve good performance in the medium to long term.

However, social reporting is lacking in transparency and clarity and with it, in order to promote unified financial reporting, the EU issues it Directive 95/2014/EU by establishing the legislative requirement for this reporting.

The analysis conducted on the sustainability reports provides if the listed Italian companies on the Italian Stock Exchange are ready to integrate the European Directive. From the results we showed that it happens, the majority of them published an independent document like sustainability report and an integrated report.

Moreover, the survey has shown that voluntary reporting has spread widely among companies, especially among large companies and that the most commonly used standard is GRI. In the latest Sustainability Reporting companies have sought to follow the information required by Legislative Decree 254/2016.

Although this regulation represents an opportunity there are still aspects on which to work, emerging from a careful reading of d. lgs. 254/2016, relating to integration with Sustainability Reporting and the integration with the quality systems.

Since sustainability reporting is considered an organizational voluntary document published by company, that gives information about the economic impact caused by companies' activities, it could be interesting to verify how during the next years the mandatory of non-financial information can effects their disclosure practices.

## Bibliography

1. Adams, C. and Kuasirikun, N., *Corporate social accounting disclosure in Thailand*, Accounting, „Auditing & Accountability Journal”, 2004, n. 17, Vol. 4.
2. Baskin, J., *Corporate responsibility in emerging markets*, Greanleaf Publishing, Sheffield 2006
3. Bhattacharyya, A., *Factors Associated with the Social and Environmental Reporting of Australian Companies*, „Australasian Accounting Business & Finance Journal”, 2014, n. 8, Vol. 1.
4. Beloe, S., Elkington, J., Hester, K.F., Loose, M. and Zollinger, P., *Tomorrow's value. The global reporters 2006 survey of corporate sustainability reporting*, SustainAbility, London 2006.
5. Borga, F., Citterio, A., Noci, G. and Pizzurno, E., *Sustainability Report in Small Enterprises: Case Studies in Italian Furniture Companies*, „Business Strategy and the Environment”, 2009, Vol. 3.
6. Castka, P., Balzarova, M., Bamber, C. and Sharp, J.M., *How can SMEs effectively implement the CSR agenda? A UK case study perspective*, „Corporate Social Responsibility and Environmental Management”, 2004, vol. 3.
7. Cormier, D., Magnan, M. and Van Velthoven, B., *Environmental Disclosure Quality in Large German Companies: Economic Incentives, Public Pressures or Institutional Conditions?*, „European Accounting Review”, 2005, vol. 1.
8. Dall'occhio M. and Tamarowski C., *Corporate governance e valore. L'esempio di Telecom Italia*, Egea, Milano 2005.
9. Dagilienė, L. and Leitonienė Š., *Corporate Social Reporting development in Lithuania*, „Economics & Management”, 2012, Vol. 4.
10. Davis, G. and Searcy, C., *A review of Canadian corporate sustainable development reports*, „Journal of Global Responsibility”, 2010, Vol. 2.
11. Deegan, C., *The Legitimising Effect of Social and Environmental Disclosures – A Theoretical Foundation*, Accounting, „Auditing & Accountability Journal”, 2002, vol. 15.
12. Donaldson, Preston, *The stakeholder theory of the corporation: concept, evidence and implications*, „Academy of Management”, 1995, Vol.1.
13. Fifka, M. and Drabble, M., *Focus and Standardization of Sustainability Reporting – A Comparative Study of the United Kingdom and Finland*, „Business Strategy & The Environment”, 2012, Vol. 7.
14. Gamerschlag, R., Möller, K. and Verbeeten, F., *Determinants of voluntary CSR disclosure: empirical evidence from Germany*, „Review of Managerial Science”, 2011, Vol. 4.
15. Golob, U. and Bartlett, J., *Communicating about corporate social responsibility: A comparative study of CSR reporting in Australia and Slovenia*, „Public Relations Review”, 2007, Vol. 33.
16. Habisch, A., Patelli, L., Pedrini, M. and Schwartz C., *Different talks with different folks: a comparative survey of stakeholder dialog in Germany, Italy, and the U.S.*, „Journal of Business Ethics”, 2011, Vol.100.
17. Hahn, R. and Kühnen M., *Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research*, „Journal of Cleaner Production”, 2013 Vol. 59.
18. Kolk, A., *Sustainability, accountability and corporate governance: exploring multinationals' reporting practices*, „Business Strategy and the Environment”, 2008, vol. 17.
19. KPMG, *The KPMG survey of corporate responsibility reporting 2013*, available at: [www.kpmg.com](http://www.kpmg.com).
20. Krumwiede, D., Hackert, A.M., Togle, J. and Vokurka, R.J., *The practice of corporate social responsibility in different countries: a study firms in Canada, Hungary, Italy, Lebanon, Taiwan and the United States*, „International Journal of Management”, 2012, Vol. 29.
21. Li, Z. and Xiang, R., *Study on content definition, measure methods and status quo of information disclosure on community responsibility in Chinese enterprises*, „Accounting Research”, 2007, Vol. 7.

22. Matten, D. and Moon, J., *“Implicit” and “Explicit” CSR: A Conceptual Framework for a comparative understandings of corporate sociale responsibility*, „Academy of Management Review”, 2008, Vol. 33.
23. Mathews, M. R., *Twenty-five years of social and environmental accounting research Is There a silver jubilee to celebrate?*, „Accounting, Auditing & Accountability Journal”, 1997, Vol. 4.
24. Moneva, J.M., Archel, P. and Correa C., *GRI and the camouflaging of corporate unsustainability*, „Accounting Forum”, 2006, Vol. 2.
25. Parsa, S. and Kouhy, R., *Social Reporting by Companies Listed on the Alternative Investment Market*, „Journal of Business Ethics”, 2008, Vol. 3.
26. Pulejo L., Marisca C. and Rappazzo N., *Social reporting in European ethical banks: a comparative study*, „International Journal of Managerial Studies and Research”, 2015, Vol. 6.
27. Roca, L.C. and Searcy C., *An analysis of indicators disclosed in corporate sustainability reports*, „Journal of Cleaner Production”, 2012, Vol. 20.
28. Romolini, A., Fissi, S. and Gori, E., *Scoring CSR reporting in listed companies – Evidence from Italian best practices*, „Corporate Social Responsibility and Environmental Management”, 2014, Vol. 21.
29. Ruf, B. M., Muralidhar, K., Brown, R. M., Janney, J. J. and Paul, K., *An Empirical Investigation of the Relationship Between Change in Corporate Social Performance and Financial Performance: A Stakeholder Theory Perspective*, „Journal of Business Ethics”, 2001, Vol. 32.
30. Sá de Abreu, M.C., de Castro, F., de AssisSoares, F. and da Silva Filho J.C.L., *A comparative understanding of corporate social responsibility of textile firms in Brazil and China*, „Journal of Cleaner Production”, 2012, Vol. 20.
31. Skouloudis, A., Evangelinos, K.I. and Kourmousis, F., *Assessing non-financial reports according to the global reporting initiative guidelines: evidence from Greece*, „Journal of Cleaner Production”, 2010, Vol. 18.
32. Stiller, Y. and Daub, C.H., *Paving the way for sustainable communication: evidence from a Swiss study*, „Business Strategy and the Environment”, 2007, Vol. 7.
33. Salvemini, S., *A che punto siamo con il “bilancio sociale”?*, „Sviluppo e Organizzazione”, 1978, Vol. 47.
34. Zhao, Z., Zhao, X., Davidson, K. and Zuo, J., *A corporate social responsibility indicator system for construction enterprises*, „Journal of Cleaner Production”, 2012, Vol. 7.



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# THE IMPACT OF PROMOTING SCIENCE ON INCREASING INTEREST IN BUSINESS COLLABORATION<sup>1</sup>

## *Summary*

*The subject of the article refers to the importance of the promotion of science and the impact of this promotion on the interest of business research results. The text contains, among others types of activities on the part of universities, which serve the dissemination of information about research results. The issues of influence of the university's image on the functioning of spin-off companies, which are often the result of commercialization of scientific research by members of the academic community, were also discussed.*

\* \* \*

## **Introduction**

The management of scientific research, in the context of mutual relations between the participants of the innovation system, refers to the best possible message from the side of science to the sphere of business. The subject of the message from science is knowledge, but in marketing terms this knowledge becomes a concrete offer for the recipient who is an entrepreneur in the innovation system.

The transfer of the research results offer from the university to the entrepreneur will be characterized by different attributes than those which characterize a transfer to the wider environment. Drawing attention in the university management to the process of informing about the functioning of it is very important. Universities need to create and strengthen an appropriate, positive image on an ongoing basis. This allows in a closer and further perspective to attract more full-time students, as well as part-time studies and also initiatives for individuals.. In national but also European conditions, graduate-university relations are not yet well developed. The relationship cultivated in the USA is definitely better. Graduates finance the infrastructure activities of their Alma Mater.

The university activeness in the area of the promotion is of a value. This does not refer to the graduates exclusively though enhancing those relations is one of the priorities of the entrepreneurial university idea. Still very important is the issue of attracting business with the university performance or rather the

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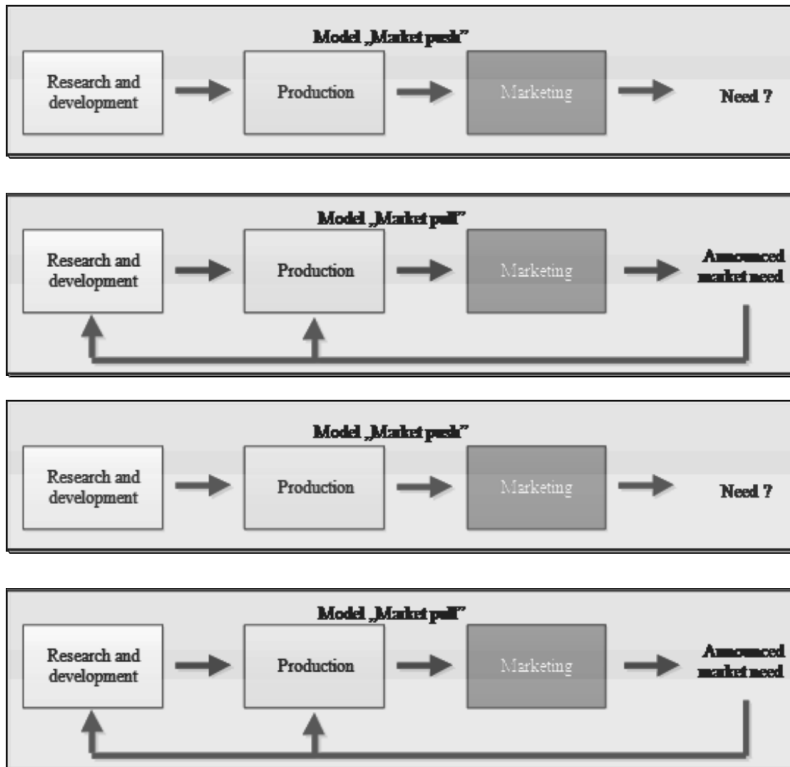
<sup>1</sup> The publication was financed within funds allocated to the University of Economics Faculty of Management as part of a grant for maintaining research potential.

effects of this performance. The issue of students as future employees is something which is developed to a satisfactory level. To be developed is still the idea of innovation drawn from the university to business. The goal of the paper is to describe how promotional activities may help in leveraging the idea of commercialization.

### Marketing of innovative solutions

Marketing of science in the form of both quantity and diversity of activities, as well as their frequency, can be an important factor supporting innovation. Innovation is said in two shots of the so-called “technology push” strategy and “market pull” strategy. The “market pull” model means that universities provide innovative solutions commissioned by contracting companies or organizations, while the “push technology” model puts the university in greater focus on promoting its scientific achievements and, as a result, interest in these solutions potential external partners – Figure 1.

Figure 1. Models “technology push” and “market pull”.



Source: Own elaboration.

The push technology model is to lead to the use of the pull model, because external entities, bearing in mind the potential of the university, may only order specific research. In every model of knowledge transfer and the flow of innovative solutions, it is important to promote the activity of the university. On the one hand, solutions that are results of research work can be implemented due to the fact that relevant information has arrived at them in an appropriate way. In the second case, ie pull innovation,



the request and ordering of specific research will be directed to those research and development units, which will be more knowledgeable and certain that they will meet the company's requirements. The main criterion for choosing a university will therefore be solely their will related to the selection of the contractor. As for the functioning of innovation models, both the "push" and "pull" models are located and will find their place in the area of the university's functioning. Within one university, there should be a focus on the possibility of using scientific solutions for social needs, but also on the side of the environment there should be awareness of the need for continuous improvement, which has its source in the research work of scientists.

### **Type of activities to promote science**

Activities promoting science can be divided into: activities promoting scientific solutions, current work of scientists, infrastructural offer, which the university is able to offer to use the environment, as well as didactic and training offer. The university's offer has a very wide range, and its skillful use should allow to improve the image as well as financial benefits equally important in the time of discussion about the diversification of funding sources for the university.

Promotion of completed and carried out tests can be done by:

1. interviews in the university press, provided by scientists,
2. interviews in extra-curricular press given by researchers,
3. audiovisual materials with the participation of researchers and broadcast in the media,
4. audiovisual materials with the participation of researchers issued in university media (local dimension),
5. independently prepared written materials prepared in the form of articles and press notes for the internal academic press,
6. independently prepared written materials prepared in the form of articles and press notes for the external press,
7. information, on the university's website, about research being carried out;
8. information on conducted research placed and available on non-university websites,
9. information about conducted and carried out research available in both university and non-university newsletters.

Not to the less importance is one of the most important transmission instruments, which is the university website, which should contain up-to-date information on the academic capacities and human potential in the field of research, analyzes, services or expertise for the environment. In turn, the activities that can be characterized as "internal" are the continuous systematization of the emerging knowledge, which is usually dispersed for the purpose of its easier transfer to employees of other organizational units of the university. In particular, information about emerging solutions is important for the purposes of units dealing with contacts with the environment, especially those offices, which are intended to encourage the actors of the environment to use the knowledge generated at universities.

An interesting example of activities to promote valuable solutions is to present examples of good practices. It is particularly useful to create this type of promotion instrument for those recipients who can easily apply it or refer to their own activities. The benefits of good practices, which are also defined as "good practices" or "best practices", result primarily from the reference to real situations, as well as generally presenting the benefits that have been achieved. The reference of the presented project to its own potential and own ideas has a stimulating effect on further actions, eg a team planning commercialization.

The didactic activities, which the universities carry out and which universities are interested in promoting, are usually carried out by apprentices who are under the direct supervision of the university. These may be units such as schools, training centers, universas, foundations, associations controlled in whole or in part by universities. The separation of training activities from the direct structures of the university facilitates the settlement of the preparation of offers and, in a sense, allows the identification

of didactic offers such as training offers. Separated centers can thus use the image of the university, and at the same time create their own, as well as be perceived as separate units in some way related to the university. There are no studies on the direct image impact of the university on the functioning of dependent entities, however, these units usually use the university's brand to promote their offer within research or training. Using the brand can be effective in order to achieve a positive image of the services offered, which are in a way similar to the activities carried out by the university. In case the subsidiaries of the university do not conduct activities in which the university specializes, this impact probably would not be so strong, and the use of the image is not necessarily appropriate. There is an analogy to the activities of enterprises that diversify their own activities in the direction not necessarily consistent with the nature of their activities (eg, commencement of sales of food products and commercial activities conducted so far in the field of chemical products) do not use the current logo and brand, but create an image for the new line activities, from scratch. This is in line with the reasoning in which the given service provider is perceived as an expert, but in the field in which he specializes. Not necessarily, or even negatively, can be seen attempts to his activity in the industry in which he has stronger competitors and is not seen as an expert.

The importance of the university's communication needs is noticed not only in the national context, but also in the international context. Communication influences the development of the scientific potential of scholars, including familiarizing with the needs of the environment, as well as obtaining information about the activities of research centers abroad. From the point of view of the region, the communication between the university and the environment, understood as transferring knowledge and stimulating interactive processes, is the basis for the development of innovative enterprises. In the case of innovative companies growing out of the university, i.e. "Spin-offs", it is necessary to cooperate properly with a researcher – an entrepreneur with a university. When establishing the rules for cooperation between the university and the spin-off company, it is worth clarifying also the rules of using university advertising signs and names for the promotion and sales marketing of the company. It should be remembered that the fact of connecting the company with the university is a source of various benefits. The most important benefit is the prestige and credibility, and hence the increased chances of acquiring clients and contractors, investors and external financing (credit, leasing, subsidies). Therefore, in the college and company agreement, it is worth determining the ways of using the company's image in the scope of: logotypes, names, websites, advertising materials, etc., and on the other hand, how to promote the company as part of events organized by the university, including business meetings. The purpose of the splinter-type marketing strategy should be to achieve the business-to-business-specific indicators of both the sales of a given product or service, as well as financial revenues and costs. The marketing strategy of a given spatter activity should specify the market segments to which one should get information about a given product and, based on appropriate promotional tools, gain interest in the product, its purchase, which in turn should lead to the achievement of the assumed sales level. At each stage of the sales activity, in accordance with the adopted good management practices, it is necessary to conduct monitoring and in the event of a threat of failure to achieve the assumed indicators, to conduct interventions.

Promotion of ongoing research work of university staff as well as effects of scientific thought is the promotion of the university's intellectual potential. Due to the promotion of knowledge and achievements of employees, it is possible to encourage potentially interested in conducting research to establish cooperation with the university's employees presenting this capital. In the case of actions promoting results, people to whom such information will get can obtain information on specific research areas, which are dealt with by individual scientists or organizational units of the university. By showing the scope of research carried out by scientists, the possibility of interest in the topic by outsiders interested in the subject is of great significance.

The scholars presenting the effects of the research are strongly emphasizing the theoretical aspects of the proposed solutions. A smaller role is attributed to the practical application of a given solution as well

as potential economic benefits. It is important for the entrepreneur whether a given solution will bring a competitive advantage to the company, and also how much it will cost to implement the innovation. From the entrepreneur's point of view, the appropriate form of presentation should be in a form of a business plan showing the benefits and costs of implementing a given solution to business practice. Therefore, the preparation of an innovative offer should be more of more commercial than scientific nature. It would be useful to apply a comparative method of a novel solution to those currently existing on the market, and preferably to indicate how the novelty brought by a given innovation will affect the competitiveness of the new offer created on the basis of implemented innovation. Another indication for the proper presentation of innovations is to focus the audience on the problems that a given solution can eliminate. A similar course of preparation of the offer, which can be called "commercial" in a much more visual way, will reach the recipient and will trigger the appropriate effect.

Knowledge acquires real value only when it becomes easily available and can thus be widely used. The disclosure of information allows other people to learn, act, make decisions and control<sup>2</sup>. M. Morawski<sup>3</sup> indicates that in order for an organization to succeed, it should consistently, consciously and systematically acquire and create new knowledge, disseminate it widely throughout the organization and quickly transform it into new technologies, products and services. The topic of existing research results is related to the issue of their appropriate promotion so that the research results have a promotional ability. Appropriate preparation of research results should be characterized by an accessible description, comprehensible, containing a clear message for the recipient and showing how the application of the proposed solution can bring financial benefits to the company. The results of scientific research should expose the benefits that will be used in economic practice. It is the lack of clear, concise descriptions that are readable by layman in a specific scientific field, often a pain on the road to commercialization of scientific research and entrepreneurs' interest in them<sup>4</sup>.

## Promotion of knowledge within the organization

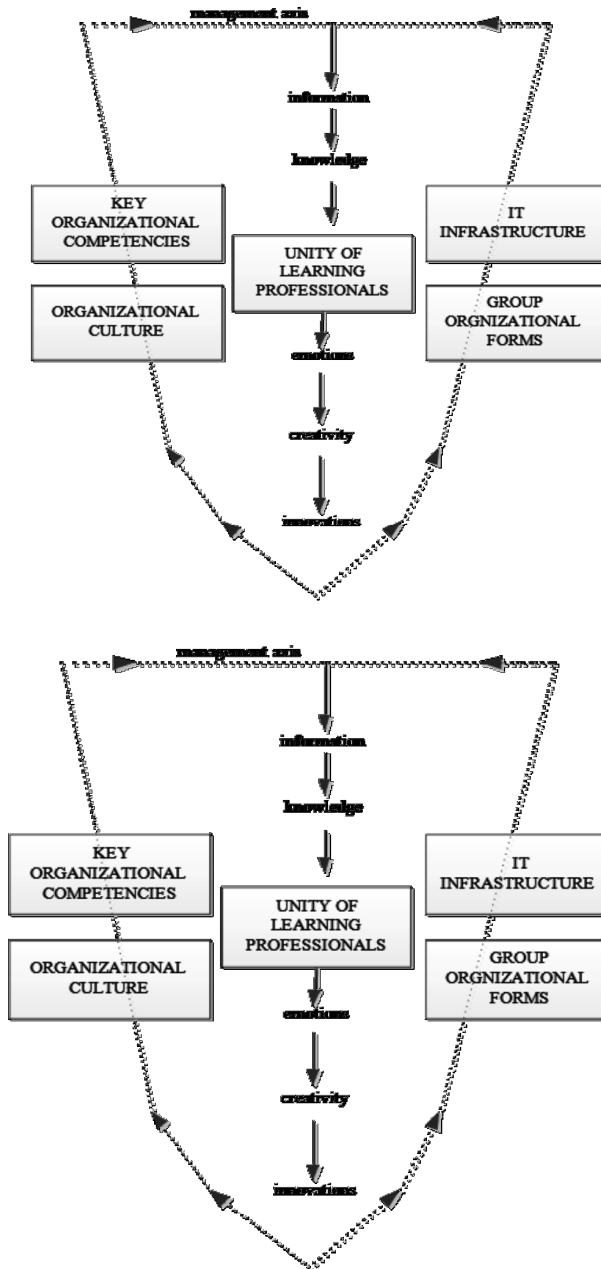
It is therefore assumed that the promotion of knowledge is necessary to achieve success. The promotion of knowledge in particular within one organization is part of the innovation process, because as a result it should lead to the creation and subsequent implementation of new solutions. In order to achieve the assumed results, it is also necessary to have the right "climate" in the organization, based on such values that shape it, such as: partnership, competence, sense of community. The climate for building internal identity is said when in a given organization, unit, enterprise, there is a belief that everything is the result of working in a group. Employees are not afraid of admitting to ignorance or lack of skills, are open and willingly exchange their experiences. The competition between employees is definitely eliminated. The supervisor has a key role in shaping employee attitudes. This manager has the greatest opportunities to influence the employee's attitudes and behavior. The functioning of such an organization is referred to as an intelligent organization (Figure 2).

<sup>2</sup> M. Morawski, *Problematyka upowszechniania wiedzy między jednostkami organizacyjnymi uczelni*, (w:) *Uczelnia oparta na wiedzy. Organizacja procesu dydaktycznego oraz zarządzanie wiedzą w ekonomicznym szkolnictwie wyższym*, (red.) T. Gołębiowski, M. Dąbrowski, B. Mierzejewska, Fundacja Promocji i Akredytacji Kierunków Ekonomicznych, Warszawa 2005, p. 140-141.

<sup>3</sup> Ibidem, p. 144.

<sup>4</sup> J. Halik, T. Kusio, M. Makowiec, *Poradnik SPIN PROMOTOR. Przedsiębiorczość akademicka w praktyce*, Uniwersytet Rzeszowski, Rzeszów 2012, p.41-56.

Figure 2. The basic elements of an intelligent organization.



Source: M. Morawski, *Problematyka upowszechniania wiedzy między jednostkami organizacyjnymi uczelni*, (in:) *Uczelnia oparta na wiedzy. Organizacja procesu dydaktycznego oraz zarządzanie wiedzą w ekonomicznym szkolnictwie wyższym*, (ed.) T. Gołębiowski, M. Dąbrowski, B. Mierzejewska, Fundacja Promocji i Akredytacji Kierunków Ekonomicznych, Warszawa 2005, p. 144.

## **Institutional conditions of knowledge promotion**

Promoting science in the context of the use of research results in business practice should be based on the best marketing practices, where the recipients should confront their own needs with the benefits of using the scientific offer. For this reason, promoting the results of scientific research that are in the possession of the university should lead to the interest of the potential entrepreneur having a given innovative solution. Scientific offers should be prepared in a simple and understandable way, indicating the benefits of their economic use. In turn, if the economic use of the results of scientific research will be implemented through a spin-off company, the strategy of its operation should be based on the use of a positive image of the shareholder, which is the university. In this context, the product offer, both domestically and internationally, should be prepared in a manner that guarantees appropriate reception and acquisition of interest in the product, which should consequently lead to its purchase. In preparing the competition strategy, factors strengthening the credibility of the spatter company should be used, i.e. presence of a shareholder in the form of a university.

Promotion on the university's side, in order to function efficiently and effectively, should be institutionalized in an appropriate manner. At universities, there should be regulations not only regarding the type and frequency of use of various forms of promotion. They should also be implemented in practice. In order to fulfill this condition, it is also necessary to monitor the implementation process of promotional activities, therefore it is necessary to assign monitoring functions to the promotion of the unit or position, but above all to assign the function of promotional activities to individuals or positions. There is no information on the state of this type of activities under national conditions, as well as the lack of a similar type of indicator in any innovation statements for a national or European area. For this reason, it is difficult to estimate to what extent and what impact of a similar type of activity may have on the increase of cooperation between universities and the business community.

Marketing activity of science units should lead to the awareness of business entities – the effects of implementation, as well as the failure to implement the results of research and development in entities of the economic sphere. Bearing in mind the treatment of a scientific unit as an organization remaining in the sphere of commercialization, activities aimed at encouraging commercial use of the results of research and development, universities should firstly create databases of potential clients. Subsequently, it is important to monitor the state of the needs of potential clients in the context of the demand for knowledge and technologies. In this respect, a database should be created for potential buyers or users of completed scientific research. This should be accompanied by the study of trends in the development of the modern world in the demographic, technological, economic, cultural, ecological and social dimensions.

The majority of national universities created the appropriate organizational conditions for using the results of scientific research and their transfer to the economy<sup>5</sup>. The following were considered as the right course of actions:

- setting up technology transfer centers,
- establishment of academic business incubators,
- creation of spin-off companies,
- employment of patent agents,
- establishing cooperation with the economic environment,
- implementation of the regulations governing the management of intellectual property rights and the principles of commercialization of knowledge and technology.

The above measures constitute mechanisms for the practical use of scientific research to improve the innovation of domestic industry and the economy. At the same time these mechanisms did not affect

<sup>5</sup> *Informacja o wynikach kontroli. Wdrażanie innowacji przez szkoły wyższe i parki technologiczne*, Najwyższa Izba Kontroli, Warszawa, 2013, s.8.

the effective implementation of the said basic task, because there was no sale or transfer of research results to the economy on other principles, as well as conducting scientific research and development work for the benefit of the economy and enterprises. Remaining effects of publicly funded research can be considered as residual.

## Bibliography

1. Borowiecki R., Kusio T., *Determinanty rozwoju innowacyjności sektora MSP*, Organizacja i kierowanie, nr 3 (173), 2016, pp.11-24.
2. Borowiecki R., Kusio T. *Zwiększanie zasobów kompetencyjnych przedsiębiorstw poprzez współpracę z uczelniami*, Zarządzanie i finanse, nr 2, 2016, pp.71-90.
3. Boschma R.A., Lambooy J.G., *Evolutionary economics and economic geography*, Journal of Evolutionary Economics Vol. 9, 1999, nr 4, pp. 411-429.
4. Gródek-Szostak Z., *Stosowanie koncepcji User-Driven Innovation w działalności innowacyjnej przedsiębiorstw*, (in:) *Zarządzanie jakością w administracji i biznesie*, (ed.) P. Celej, M. Kaczmarczyk, Oficyna Wydawnicza „Humanitas”, Sosnowiec 2016, pp. 75-87.
5. Halik J., Kusio T., Makowiec M., *Poradnik SPIN PROMOTOR. Przedsiębiorczość akademicka w praktyce*, Uniwersytet Rzeszowski, Rzeszów 2012.
6. *Informacja o wynikach kontroli. Wdrażanie innowacji przez szkoły wyższe I parki technologiczne*, Najwyższa Izba Kontroli, Warszawa, 2013].
7. Józwiak A., *Zarządzanie wiedzą jako sposób ciągłego podnoszenia kompetencji pracowników*, (in:) *Uczelnia oparta na wiedzy. Organizacja procesu dydaktycznego oraz zarządzanie wiedzą w ekonomicznym szkolnictwie wyższym*, (ed.) T. Gołębiowski, M. Dąbrowski, B. Mierzejewska, Fundacja Promocji i Akredytacji Kierunków Ekonomicznych, Warszawa 2005.
8. *Komercjalizacja wyników badań naukowych – Krok po kroku* (ed.) D. Markiewicz, CTT PK, Kraków 2009.
9. Krull W., *Creativity and Innovation as a Challenge for European Universities and Foundations*, (w:) *Towards a New Creative and Innovative Europe*, (red.) A. Kukliński, C. Lusiński, K. Pawłowski, WSB-NLU, Nowy Sącz 2005.
10. *Modele biznesowe budowy i rozwoju firm spin off na podbudowie szkoły wyższej*, (red.) M. Bąk, P. Kulawczuk, Instytut Badań nad Demokracją i Przedsiębiorstwem Prywatnym, Warszawa 2010.
11. Morawski M., *Problematyka upowszechniania wiedzy między jednostkami organizacyjnymi uczelni*, (in:) *Uczelnia oparta na wiedzy. Organizacja procesu dydaktycznego oraz zarządzanie wiedzą w ekonomicznym szkolnictwie wyższym*, (ed.) T. Gołębiowski, M. Dąbrowski, B. Mierzejewska, Fundacja Promocji i Akredytacji Kierunków Ekonomicznych, Warszawa 2005.
12. Szarucki M., *Developing classification criteria for organizational problems*, “Business and Management 2010”, Selected Papers, Vol. II, R. Ginevicius, A.V. Rutkauskas, R. Pocs (eds), VGTU Publishing House “Technika”, Vilnius 2010, s. 1100-1106

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# MEDIATION IN COMMERCIAL DISPUTES IN LITIGATION – WHY IS IT RECOMMENDABLE TO ENTER INTO SETTLEMENTS

## *Summary*

*In this paper, the issues relevant to mediation, the definition of this term and the kinds of mediation, were discussed. A particular attention was paid to the process of mediation, indicating the advantages of it, and also the advantage of mediational proceedings in commercial cases as soon as at the stage of submitting a case to the court of law. In this paper, attention is concentrated upon the presentation of mediation resulting from the instruction from the court of law. The advantages which result from entering into a mediational settlement were presented. The advantages of the mediational proceedings themselves, accompanied by the influence exerted by parties upon the shape of a settlement, and the conditions of it, and also financial solutions which were set forth by the legislator, for the purpose of encouraging commercial entities to enter into settlements at different stages of proceedings in the court of law, were enumerated and described.*

\* \* \*

## **Introduction**

The word ‘mediation’ originates from the Latin word *mediatio*, which means an intermediary participation in a dispute, for the purpose of bringing about a reaching an agreement.<sup>1</sup>

In the 1970s, in the USA, a dangerous phenomenon constituted by the threat of paralysing economy, as well as the administration of law, by having to wait for several years for the decision of the court of law, the cause of which was an excessive number of cases. This situation used to constitute a real threat to the effective functioning of the states.<sup>2</sup> Attempts to set forth the alternative methods of resolving disputes, namely so-called ADR (Alternative Dispute Resolution), were initiated. ADR became an alternative to

<sup>1</sup> W. Kopaliński, *Słownik wyrazów obcych i zwrotów obcojęzycznych*, Warszawa 1967, p.475.

<sup>2</sup> R. Coulson, *The future of private Dispute Resolution in the United States*, [ed.] J.C. Beatancourt, J.A. Crook [in:] *ADR, Arbitration, and Mediation*, Author House, 2014, p.36 and the following ones.

long-drawn-out proceedings in the court of law, which commercial entities could take advantage of for the purpose of resolving a dispute in commercial cases in a short time.

In the literature<sup>3</sup>, the following are included into the fundamental forms of ADR: mediation, arbitration, and also conciliation. The doctrine, as well the practice, refers to mediation as to an alternative to proceedings in the court of law.<sup>4</sup>

In the 1990s, the European environment of lawyers started to accept mediation as an alternative to proceedings in the court of law. Judges obtained the possibility of proposing mediation to the parties to a conflict, for the purpose of avoiding several-year long proceedings in the court of law and reducing the workload of adjudication laid upon the court of laws.

In the year 2005, the Polish legislator set forth mediation in the Code of Civil Procedure<sup>5</sup> (hereinbelow, referred to as: the Code of Civil Procedure). Thanks to that, the provisions of the Code of Civil Procedure make it possible at different stages of proceedings in the court of law to instruct the parties to attempt mediational proceedings.

### Kinds of mediation

The Code of Civil Procedure stipulates two modes of initiating a mediation, which may be conducted either upon the basis of the agreement of mediation, or upon the basis of a decision of the court of law instructing parties to attempt mediation (Article 183<sup>1</sup>, Paragraph 2, of the Code of Civil Procedure). The first method of conducting mediation is referred to as a contractual mediation, which consists in submitting by parties an appropriate declaration of will in the agreement of mediation by parties (Article 183<sup>1</sup>, Paragraph 3, of the Code of Civil Procedure). The fundamental so-called constitutive element of the agreement of mediation is concerted declaration of parties, which determines that the existing disputes, conflicts *etc.*, or such as may arise between them in the future, will be resolved with the application of mediation.

In connection with the considerations referred to hereinabove, the agreement of mediation is observed in the situation in which parties have signed the agreement of mediation. *Ipsa facto*, parties accept responsibility of participating in it. Discharging this obligation ought to be perceived as the implementation of the principle: *pacta sunt servanda* ('agreements must be kept'), notwithstanding that, taking under consideration the voluntary character of mediation, it is not guaranteed that it will be implemented. If, notwithstanding that, parties make a decision to include a so-called mediational clause in the agreement, then they voluntarily undertake to participate in mediation. *Ipsa facto*, in order to address the court of law with a claim, parties are obliged to discharging their obligations, which they have voluntarily accepted.

The agreement of mediation may as well have a character of a separated agreement, which may be entered into in any form (Paragraph 2 of the provision being commented upon), and that means in writing, verbally, in the form of a notarial deed *etc.* Entering into the agreement of mediation may as well be the result of implicit or tacit consent (*per facta concludentia*). Notwithstanding that, from the point of view of positiveness within the scope of the assessment of the will of parties, it ought to be entered into in writing.

Entering into the agreement of mediation is not an obstacle to hearing a given case by the court of law in civil proceedings. Notwithstanding that, if, prior to the commencement of proceedings in the court

<sup>3</sup> Ł. Błaszczak, *Alternatywne formy rozwiązywania sporów – analiza zjawiska na tle prawa polskiego*, [in:] *Czterdziestolecie Kodeksu Postępowania Cywilnego. Zjazd katedr postępowania cywilnego w Zakopanem*, Zakamycze 2006, p.332.

<sup>4</sup> P. Tercier, *ADR in Arbitration*, [in:] *ADR in Business: Practice and Issues Across Countries and Cultures*, [ed.] Jean-Claude Goldsmith, Gerald Pointon, Alpeen aan den Rijn 2011, volume II, pp.4-6.

<sup>5</sup> Act of 17<sup>th</sup> November, 1964 – The Code of Civil Procedure, *Journal of Laws* 1964, issue 43, item 296.



of law, parties entered into the agreement of mediation, then the court of law, responding to the plea of the defendant (submitted prior to the commencement of a dispute relevant to the essence of the case), instructs parties to attempt mediation in accordance with Article 202<sup>1</sup> of the Code of Civil Procedure. If that occurs, and if a party refuses to attempt mediation without reasonable causes, then the court of law may, irrespective of the result of proceedings in the case, burden this party with the costs resulting from the refusal to accept mediation (Article 103, Paragraph 2, in connection with Article 103, Paragraph 1, of the Code of Civil Procedure).

The agreement of mediation may be as well entered into by expressing an agreement that it be attempted in the case of the other party having submitted an application to conduct mediation, with the attached proof delivering it upon the other of the parties, and the party in question expressed its agreement to attempt mediation (183<sup>1</sup>, Paragraph 2, sentence 2, in connection with Article 183<sup>6</sup>, Paragraph 1, Point 4, of the Code of Civil Procedure).

Conducting mediation is stipulated as well at the stage proceedings in the court of law, and that means when one of the parties to a conflict has already made a decision to submit the case to the court of law. In such a situation, at each and every stage of proceedings in the court of law, the court of law may make a decision to instruct that parties attempt mediation.

It may be the result of both an initiative of the court of law as well as an application of a party which may apply for instructing to attempt mediation (Article 183<sup>8</sup> of the Code of Civil Procedure).

The court of law may, at a closed meeting, issue a decision that parties be instructed to attempt mediation. In the practice of the court of law, we frequently come across the situation in which, at the beginning, the court of law addresses parties with an inquiry whether they express their agreement to attempt mediation, and, consequently, after receiving agreement from the parties, instructs them to attempt mediational proceedings.

The court of law, issuing a decision on mediation, indicates a person to act as a mediator in it, and also determines the period of time which the mediation is to be conducted in. The maximum duration of mediation is three months (Article 183<sup>1</sup> of the Code of Civil Procedure).

In conclusion, it may be stated that if parties have expressed their agreement for mediation, upon receiving a decision by the mediator the period of time assigned for mediation is commenced.

### **Advantages of mediation resulting from the instruction from the court of law in commercial cases**

Mediation has come to be referred to as ‘the queen of ADR’. Currently, it is being understood as a certain approach to solving conflicts the objective of which is to reach a compromise with the application of a settlement.

Directive 2008/52/EC<sup>6</sup> of 21<sup>st</sup> May, 2008, on certain aspects of mediation in civil and commercial cases (hereinbelow, referred to as: Directive), the presumption of which is to propagate the application of mediation, sets forth in Article 3 that ‘Mediation’ means a structured process, however named or referred to, whereby two or more parties to a dispute attempt by themselves, on a voluntary basis, to reach an agreement on the settlement of their dispute with the assistance of a mediator. This process may be initiated by the parties or suggested or ordered by a court or prescribed by the law of a Member State.’

International and Polish standards relevant to mediation were set forth in the followings documents:

1. Directive of the European Parliament and the Council 2008/52/EC of 21<sup>st</sup> May, 2008, on certain aspects of mediation in civil and commercial cases (*Official Journal of the European Union L* of 24<sup>th</sup> May, 2008);

<sup>6</sup> Directive of the European Parliament and the Council 2008/52/EC of 21<sup>st</sup> May, 2008, on certain aspects of mediation in civil and commercial cases (*Official Journal of the European Union L* of 24<sup>th</sup> May, 2008).

2. Recommendation Rec (2002) 10 of the Committee of Ministers to Member States on mediation in civil cases of 18<sup>th</sup> September, 2002;
3. Recommendation No. R (99) 19 Committee of Ministers [Council of Europe] to Member States on mediation in penal cases (adopted by the Committee of Ministers of 15<sup>th</sup> September, 1999, at 679 meeting of the 00 representatives of the Ministers and Comment);
4. Recommendation No. R (98) 1 of the Committee of Ministers to Member States on Family Mediation, and also Explanatory Memorandum.
5. European Code of the Conduct of Mediators.
6. Wrocław Declaration relevant to Binational Mediations.
7. Standards of mediation in ADR passed by the Social SDR Council.
8. Code of ethics of Polish Mediators (May 2008)
9. Standards of training mediators.

**In turn, the Polish laws regulating mediation in civil cases are as follows:**

Act of 17<sup>th</sup> November, 1964, The Code of Civil Procedure (*Journal of Laws* of 2016, item 1822, as further amended), a provision in force since 10<sup>th</sup> December, 2005, set forth in the Code of Civil Procedure by virtue of the Act of 28<sup>th</sup> July, 2005, on the Change of the Code of Civil Procedure, and also certain other Acts (*Journal of Laws* of 2005, issue 172, item 1438), as further amended, including those set forth by virtue of the Act on the Change of Certain Other Acts in Connection with Supporting Amicable Methods of Resolving Disputes of 10<sup>th</sup> September, 2015 (*Journal of Laws* of 2015, item 1595).

Act of 23<sup>rd</sup> April, 1964, the Civil Code (*Journal of Laws* of 1964, issue 16, item 93, as further amended) Act of 28<sup>th</sup> July, 2005, on the Act on Court of Law Costs in Civil Cases (*Journal of Laws* of 2016, item 623, as further amended).

Order of the Minister of Justice of 20<sup>th</sup> June, 2016, on the Sum of Remuneration and Returnable Expenses of a Mediator in Civil Proceedings (*Journal of Laws* of 2016, item 921).

Order of the Minister of Justice of 20<sup>th</sup> January, 2016, on Keeping the Registers of Permanent Mediators (*Journal of Laws* of 2016, item 122).

Act of 27<sup>th</sup> July 2001, Law on the System of Common Courts of Law (*Journal of Laws* of 2016, item 2062)., Act of 23<sup>rd</sup> September, 2016, on Out-of-Court Resolving Consumer Disputes (*Journal of Laws* of 2016, item 1823).

Act of 27<sup>th</sup> July 2001, Law on the System of Common Courts of Law, as further amended, set forth commercial divisions, established, among others, for the purpose of hearing commercial cases. In connection with the considerations referred to hereinabove, commercial entities between which a dispute has arisen, refer cases to commercial divisions, and, depending upon the value of the subject of dispute or different premises resulting from Article 17 of the Code of Civil Procedure, are heard by the court of law: district or the lower level ones.

The stage resulting from the instruction from the court of law that parties attempt mediational proceedings occurs in a situation when a case was received as soon as to the court of law. Initiating these proceedings results from the initiative of the court of law, which assesses whether a case is appropriate for mediation, or, when parties have filed a motion. Parties, irrespective of the subject which gave rise to mediation, agreeing for this mean to be applied, provide themselves with the possibility to determine the result of a dispute. That means that parties attempt on their own to reach an agreement about the contents of the settlement, and, *ipso facto*, to relieve the court of law of the duty to make a decision and to decide instead of the parties about the result of a case.

Making a decision to attempt mediation, commercial entities ought to carefully consider the advantages of mediation, and tap into the provisions stipulated in laws set forth in the Code of Civil Procedure.

Mediation proceedings are conducted by a mediator, irrespective whether these are relevant to mediation conducted upon the basis of an agreement, or a decision of the court of law. Notwithstanding that, mediation conducted in accordance with the instruction from the court of law is conducted by a mediator, who has been entered into the register of the Permanent mediators of the court of law. The district courts of law draw up the registers of mediators, upon the basis of which judges appoint mediators. Mediators entered into registers have to comply with the requirements resulting from the Order of the Minister of Justice of 20<sup>th</sup> January, 2016, on Keeping the Register of Permanent Mediators (*Journal of Laws* of 2016, item 122), as well as the requirements set forth in Article 183<sup>2</sup> of the Code of Civil Procedure.

A mediator is an impartial person, who does not take side on the matter, does not assess, and does not resolve the case; a mediator may be referred to as a buffer assisting commercial entities in reaching a mutually-acceptable agreement

Upon the receipt by a mediator of a decision of the court of law instructing parties to attempt mediation, the period of time assigned for mediation is commenced. Consequently, a mediator organizes a mediational meeting, for which they invite parties/commercial entities, accompanied by their proxies. It is a standard in commercial cases that commercial entities, which are, in most instances, companies or persons conducting business activity, are accompanied by proxies. The presence of proxies in commercial mediational proceedings may be considered a standard. Incidentally, it happens that parties to commercial mediational proceedings wish to participate on their own, and without proxies. The participation of proxies in commercial mediational proceedings brings about a different result. Notwithstanding that, there are no basis to prevent a proxy from participation in a mediation if one of the parties does not wish to be left to their own devices in the course of a meeting.

Commercial mediation has a number of advantages, which exert a positive influence upon entering into a settlement.

The fundamental advantages of mediation are:

- voluntary character,
- flexibility,
- confidentiality,
- the rapid course of proceedings,
- moderate costs,
- the reduced formalism of procedures,
- sense of exerting influence upon resolving a dispute,
- reducing the escalation of a conflict,
- guaranteeing a result.

### **Voluntary character:**

The voluntary character of mediation constitutes the foundations of it, and is considered to be a cornerstone of its functioning; it is as well set forth in Article 183<sup>1</sup>, Paragraph 1, of the Code of Civil Procedure, and also in Point 13 of the relevant Directive. It means that participation in mediation is dependent solely and exclusively upon the good will of commercial entities.

A party may refuse to participate in mediation when it results from the instruction from the court of law; as well as that, each and every of the parties may withdraw from mediation at any moment when desired while it is in progress. Both a refusal to reach an agreement in mediation, and withdrawing from mediation, do not require explanations, and that results from the principle of the voluntary character of mediation.

Experience indicates that in a situation when one of the parties will be forced to enter into a settlements, the successful character of it will not be very likely, and, if an agreement is indeed reached, parties will

seek ways to avoid its implementation. Withdrawing from mediation may be observed at different stages of proceedings; in the course of a court meeting, a party may not express their consent to mediation; in the course of a mediational meeting, it may declare that will not be continuing mediation any longer, as well as it may not agree to participate in mediation as soon as it receives a decision of the court of law instructing parties to attempt mediation. In such a situation, a mediator is obliged to draw up the records of the course of mediation, in which they will provide the following data: participants, taking part in a meeting, venue and date, and also the result of mediation, and that means, whether a settlement was entered into or not, and, if it was entered indeed, a signed settlement is attached. If the result of mediation is negative, then, following the submission of the records with information that parties did not enter into a settlement, the case is returned to the court of law, and the proceedings are continued in accordance with the provisions set forth in the Code of Civil Procedure.

### **Flexibility:**

One of the greatest advantages of mediation is the flexibility of it. It means that it makes it possible for parties to comprehensively discuss all and any issues which are the bone of contention between parties, and, *ipso facto*, makes it possible to include in a settlement a broad scope of resolutions, which are not possible in the case of proceedings in the court of law. That results from the requirements which are imposed upon participants in proceedings by the Code of Civil Procedure, which compels a party wnoszącą powództwo to precisely determine the contents of its demand, i.e. what it wishes to receive. In connection with those considerations, in numerous instances, it is not possible to make all the disputed issues the subject of the same proceedings.

It is important that a mediation may be applied in reference to virtually each and every kind of disputes.

Parties make a decision concerning the result of mediation and the contents of a settlement, which, consequently, brings about them being satisfied, and willing to observe the mutual agreement. In the course of mediation, parties may together discuss, analyse and assess the disputed issues, which is not possible in the course of proceedings in the court of law. In the course of mediation, parties have the possibility of looking into all the issues existing between them, rather than solely the legal and financial ones, but, as well, those relevant to interpersonal relations.

In disputes in which emotions play a major role, in numerous instances parties reach concord and apologise to one another, which, without doubt, exerts a positive influence upon entering into a settlement.

In turn, when parties leave it for the court of law to resolve the case, the consequence of this decision is that the court of law does decide. In such a situation, it is a rule that one of parties loses, and that does not necessarily must be a defendant. In turn, the element of uncertainty does not occur in mediational proceedings. In the course of mediation, parties reach an agreement, which is their common decision. In a settlement, they may include different solutions, taking under consideration the needs of the parties. The sole condition of a settlement is that the contents of it not be contradicting law, or principles of social cohabitation, or that it not intend to circumvent law, and, additionally, that it be understandable and free of internal contradictions. (Article 183<sup>14</sup>, Paragraph 3, of the Code of Civil Procedure).

### **Confidentiality:**

Another advantage of mediation is the confidential character of it, which is set forth in Article 183<sup>4</sup>, Paragraph 1, of the Code of Civil Procedure. Mediational proceedings are not open. A mediator, parties and different persons participating in mediational proceedings are obliged to maintain the secrecy of the facts which they were aware of in connection with conducting mediation (Article 183<sup>4</sup>, Paragraph 1, of the Code of Civil Procedure).

That means that it is not effective to invoke in the course of proceedings in the court of law, or in the arbitration court of law, the proposals of settlements, proposals of mutual concessions, or different declarations made in mediational proceedings (Article 183<sup>4</sup>, Paragraph 3, of the Code of Civil Procedure).

A mediator is obliged to maintain the secrecy of the facts which they became aware of in connection with conducting mediation (Article 1834, Paragraph 2). In connection with the provision entered into the Code of Civil Procedure, a mediator may not be interrogated in the capacity of a witness, in connection with the facts which they became aware of in connection with conducting mediation (Article 259<sup>1</sup>, the Code of Civil Procedure). It is solely parties that may release a mediator from the obligation to maintain the secrecy of mediation, but that requires an agreement between them parties. It ought to be emphasized that professional proxies may not invoke information acquired in the course of mediational proceedings, either, because that may bring about disciplinary liability resulting from the code of professional ethics.

Unlike mediation, proceedings in the court of law is open, and parties are not able to avoid the possibility of a case being commonly known, and a possible damage to the image for the company, connected with that. In connection with those considerations, and thanks to the principles of confidentiality, parties may openly discuss the issues about which they have different opinions, which, in numerous instances, helps them to reach an agreement.

If mediation were conducted in accordance with the instruction from the court of law, then, in the case of the lack of settlement, the court of law receives only the records containing information that mediation was conducted, and that no settlement was entered into. If, in turn, mediation was conducted upon the basis of an agreement, then no one, apart from the parties participating in it, will not about mediation.

### **Rapid course of mediation:**

One of the best methods of presenting mediation as a method of resolving disputes in a rapid course will be to provide more information about the statistical data relevant to the time taken by proceedings in the court of law to which mediation constitutes a very attractive alternative.

Upon the basis of the report on the activity of the common court of laws in the first half of 2017, drawn up in accordance with the instruction from the Ministry of Justice, it may be concluded that the average duration of proceedings in the court of law in commercial cases in the first instance is 14 months.<sup>7</sup> Notwithstanding that, the duration of proceedings in the court of law since the day of the first registration until the day on which the case becomes valid in the first instance in the courts of law (district or lower level) in the selected categories of cases amounts to 2 – 3 years.<sup>8</sup>

In addition to that, one still ought to add the average duration of appeal proceedings, and afterwards the time required to enforce the decision of the court of law. In comparison with that, mediation appears to be a very competitive measure in proportion to proceedings in the court of law. The average duration of mediation is between 3 and 5 months, in turn, the duration of mediation resulting from the instruction from the court of law amounts to no more than three months, and it is possible to extend this time. The above gives rise to the conclusion that selecting an alternative method of resolving a dispute which is constituted by mediation may result in ending the dispute much sooner with the application of entering into a settlement. In addition to that, how rapid course of conducting mediational proceedings will be, depends to a great degree on participants in this process. It is the parties that decide about the choice of a mediator and the dates of mediational meetings. Participants in mediation may as well tap into the possibility of holding a videoconference or conference call to make it possible to conduct mediation without the presence of participants and a mediator in the same place.

### **The duration:**

Mediation is an method of resolving disputes offering a rapid course of it. Parties, accompanied by a mediator, determine the convenient time for a meeting. The duration of mediation is dependent on a particular case, and it may last several hours, a day, or even longer. It is conducted in the form of joint

<sup>7</sup> <http://isws.ms.gov.pl/baza-statystyczna/publikacje/download.2779.0.html>, p.21

<sup>8</sup> <http://isws.ms.gov.pl/baza-statystyczna/publikacje/download.2779.0.html>, p.22

sessions, which are protected by the rules of confidentiality, as well as possible to be organized in the form of one-to-one sessions.

In Great Britain, mediation may be conducted personally or by means of telephone contact, or even tapping into software making it possible to conduct video-conversations and audio conversations all over the world. In Poland, in the process of mediation instructed by the court of law, the model of personal participation of parties to mediational proceedings is applied. In accordance with my assessment, mediation conducted upon the basis of an agreement, namely, without the instruction from the court of law, may be conducted on the Internet, or in a form of conference calls because it significantly accelerates the process of reaching all and any agreements. Each and every form of contact which makes it possible to achieve the rapid course of communication between parties and a mediator, is simultaneously conducive to the will to attempt mediation, and also to end it more effectively and more rapidly. With the application of the Internet, and arising communicators of a different kind, we will slowly be forced to renounce traditional mediational meeting, and replace them with new solutions.

### **Costs of mediation:**

Mediation resulting from the instruction from the court of law and upon the basis of the decision of the court of law is for parties a very beneficial solution from the point of view of finances. That is the result of the fact that the cost of mediational proceedings are definitely lower than those of conducting proceedings in the court of law, which is very frequently long-drawn-out and costly. Submitting a dispute to the court of law, parties are obliged to effectuate relevant payments to the court of law, to cover the costs connected with the remuneration of professional proxies, expert witnesses, and they also have to be taken under consideration, in the conditions of Polish reality, the fact that proceedings may take a few years. In turn, deciding to choose mediation resulting from the instruction from the court of law and initiated upon the basis of the decision of the court of law, parties are obliged to cover the costs which are incomparably smaller, and they are able to finish the dispute in a definitely shorter time than that required by the entire court proceedings.

The costs which will have to be covered by parties in connection with mediation is the remuneration of a mediator and the costs of conducting mediation by them; these costs are determined in detail in the Order of the Minister of Justice of 20<sup>th</sup> June, 2016, on the Sum of Remuneration and Returnable Expenses of a Mediator in Civil Proceedings.

For the purpose of encouraging parties to proceedings, a legislator made a decision (in 2016) to set forth changes within the scope of returning the payments to the court of law, and that means, depending upon the stage of proceedings in the court of law, at which parties entered into a settlement, a certain part of the registration duty is returned. In connection with those considerations, the legislator encourages to enter into settlements as soon as at the early stage, when the letter initiating proceedings in the first instance was received, but a court meeting in the court of law of the first instance is yet to take place. In connection with the above considerations, the sooner parties enter into settlement with the participation of a mediator, the greater part of the registration duty will be returned to them.

If a settlement is entered into, the following parts are returned:

- 1) the entire sum of the effectuated payment due to a letter initiating the proceedings in the first instance, and also objections against writs of payment, if proceedings were concluded with entering into a settlement prior to the commencement of a court meeting in the court of law of the first instance; (Article 79, Point 1, letter h, of the Act of 28<sup>th</sup> July, 2005, on the Court of Law Costs in Civil Cases<sup>9</sup> (hereinbelow, referred to as: Act on Court of Law Costs);

<sup>9</sup> Act of 28<sup>th</sup> July, 2005, on the Act on Court of Law Costs in Civil Cases (*Journal of Laws* of 2016, item 623, as further amended).

- 2) 3/4 of the effectuated payment of a registration duty for the party initiating a process (plaintiff) in accordance with Article 79, Section 1, Point 2, letter a, of the Act on Court of Law Costs;
- 3) half of the effectuated payment due to a letter initiating proceedings in the second instances, in which the case was concluded with entering into a settlements with the participation of the court of law (Article 79, Point 3, letter d).

This solution ought to encourage to attempt mediational proceedings in civil cases already submitted to the court of law.

Further advantages, and that means reduced the formalism of procedures, sense of exerting influence upon resolving a dispute, reducing the escalation of a conflict, are resultants of the advantage described earlier in this paper.

### **Guaranteeing a result:**

Proceedings in the court of law is subjected to rigid principles, which, after all is said and done, oblige the court of law to issue a final decision, in which this court of law makes a decision in always in favour of one, or the other, of the parties to the proceedings. It is a standard situation that one of the parties is not satisfied with the decision made by the court of law, but it is possible that the victorious party has achieved something that is only a Pyrrhic victory.

An alternative to the presented situation is constituted by mediation, which provides the guarantee of a result because parties are the makers and constructors of a settlement. It is the parties that decide about the shape of the settlement, and the conditions of it. In mediational proceedings, the risk which is observed in proceedings in the court of law, and which, as it is seen from experience from the court of law, may surprise many, is not present. Unfortunately, the decisions of the court of law in Poland are unfathomable, and that makes it never fully known what the result of the dispute in the court of law will be.

In turn, mediation does not involve such a risk because the parties participating in it will never lose in connection with choosing this method of reaching a compromise, and they risk nothing. Participants in mediation will never deteriorate the situation in which they are. At each and every moments, parties may decide to discontinue mediation, and come back to the courtroom. Irrespective of that come back to proceedings in the court of law, they may one more time make an attempt to mediate, and request that the court of law issue a relevant instruction. In addition to that, making a decision to attempt mediation, and reaching an agreement relevant to a shared position on the matter, which is a certain compromise entered into with the application of signing a settlement, the parties may exert a real influence upon the ultimate result of the case. Settlements signed in mediational proceedings is followed by the final step constituted by the approval of a settlement by the court of law with the application of a decision of the court of law. That means that a case is quashed, and that the parties implement the decisions reached together by them, and recorded in the settlement.

### **Building relations for the sake of the future:**

A party initiating a process in the court of law by bringing a lawsuit has to determine precisely the contents of its claim, which results in the fact that sometimes there is no possibility to seek the redress of all its claims because there are procedural problems that arise. In connection with those considerations, as soon as at the very beginning, it may turn out that commercial entities will not be able to seek the redress of all their claims. It goes without saying that a civil procedure stipulates the possibility of entering into settlements in the court of law, which are entered into in the court of law, rather than with the participation of a mediator. Notwithstanding that, there occur significance differences, including the costs of the court of law, and including the contents of a settlement. In the settlement in the court of law, parties solely and exclusively may reach an agreement within the scope of demanding a lawsuit, in turn, in a settlement signed before a mediator, parties may enter a comprehensive agreement relevant to different disputable issues. Within the scope of costs, there was no return of a registration duty.

Commercial entities, which made efforts to reach a shared position with the application of a compromise, and which have signed a settlement, frequently commence collaboration again, and meet the objective which they choose, and to pursue which they were established, namely obtaining profits and building their position in the market, rather than conducting disputes in litigation.

### **Attitude to mediation:**

The approach which treats the commencement of mediation as the sign of weakness is the manifestation of the lack of understanding of what the idea of mediation consists in. A party initiating the process of mediation is an entity which thus expresses its will of reaching an amicable solution to a dispute, and which, *ipso facto*, adopts a mature approach to the issues connected with business.

It is worth attempting actions the intended objective of which is to finish a dispute in a rapid course and with the application of mediation, and together make a decision relevant to the result of a case. Notwithstanding that, so as to make sure that the mediational proceedings bring about the intended results, it is recommendable that parties participate in it personally. The experience of real life in numerous instances indicates that mediation conducted with the participation of parties themselves, or parties accompanied by proxies, brings about advantages immeasurably greater than that conducted by proxies alone. In commercial cases, when parties to process are large companies, it is very frequently only their court proxies, that participate, and this, unfortunately, brings about the effects exactly opposite to the intended ones.

There are various kinds of approaches of parties to mediation that can be come across, commencing with a full acceptance, and reaching the stage as different as entire distrust, and questioning it, which may result from the personal approach, or from their declarations.

The essence of submitting oneself to mediation is, notwithstanding that, understanding by parties that it is mediation that provides the possibility of developing a shared position in accordance with their own wishes, and also makes it possible to save time and financial means.

Parties to a dispute making a decision to attempt mediation ought to make their attitude to the case neutral, not transform position from the court of law to a mediational meeting, and also remember that a settlement is a compromise and reaching a shared position.

Irrespective of different opinions about mediation, it is true without doubt that it constitutes a valuable tool of resolving disputes, and it ought to be applied at all stages of proceedings in the court of law.

### **Mediator:**

The term 'mediator' originates from the Latin word *mediare*<sup>10</sup> – to mediate in a dispute. A mediator, and that means a reconciler, an arbitrator, is a person who is impartial, who is neutral. A mediator is neither a judge, an arbitrator, nor an advisor, and a mediator does not assess which party is right, or which party is wrong. A mediator does not have a power of resolving disputes, or that of imposing the contents of a settlement upon parties. The Code of Civil Procedure, Article 183<sup>3a</sup>, sets forth the possibility of, if both of the parties apply for that in concord, a mediator may indicate to them the methods of resolving a dispute which are not binding upon the parties.

It is a standard that the result of mediation is determined solely and exclusively by parties.

The most important role of a mediator is to make it possible for participants in mediation to reach an agreement together, and to react in a situation when emotions become more and more intense.

Who may become a mediator, in accordance with the regulations sets forth in the Code of Civil Procedure, Article 183<sup>2</sup>, Paragraph 1? A natural person having a full legal capacity and able to exercise

<sup>10</sup> *Ibidem*



their public rights in the full scope of them. This group includes judges, notwithstanding that, it does not include retired judges.

Non-governmental organizations, within the scope of their statutory tasks, and also institutions of tertiary education, may keep the registers of mediators, and also establish the centres of mediation. Entering into the register requires that a mediator has submitted a consent to that in writing. Information about the registers of mediators, and also the centres of mediation, is forwarded to the chairperson of the district court of law.

Notwithstanding that, for a mediator to be entered into the register of the Permanent mediators of the court of law, a number of guidelines have to be complied with. These guidelines results from the Order of the Minister of Justice of 20<sup>th</sup> January, 2016, on Keeping the Register of Permanent Mediators.<sup>11</sup>

In mediational proceedings, and, in particular, in commercial cases, it is very important that a mediator be a person in the possession of experience within the scope of commercial cases and technical knowledge of law because these qualities facilitate conducting mediation in commercial cases. Having taken under consideration that, in the majority of commercial mediation, apart from parties, their professional proxies participate as well, the participation of a mediator being a lawyer exerts, in numerous instances, a more beneficial influence upon the course of mediational proceedings.

Irrespective of the above, parties may always make a decision on their own concerning the choice of a mediator. If, notwithstanding that, parties do not make the choice of a person to serve in the capacity of a mediator, the court of law, instructing parties to attempt mediation, will appoint a mediator possessing appropriate knowledge and abilities within the scope of conducting mediation in the cases of a given kind, taking under consideration Permanent mediators before anyone else (Article 183<sup>9</sup> of the Code of Civil Procedure).

## Conclusion

The objective of this paper was to present the undeniable advantages of mediational proceedings in commercial cases.

In the contemporary world of business, a rapid course of making decisions and resolving conflicts is one of the most valuable abilities which, in numerous instances, makes it possible to economise on time and money of entrepreneurs. In business relations, it is not possible to avoid disputes with business partners, but it is real achievement to conclude them peacefully.

After all is said and done, disputes do not have to be submitted to the court of law, whether *powszechnych* or *polubownych*. Everything is dependent upon the will and the attitude of parties, and their choice of a form in which they will want to resolve a dispute.

In mediational proceedings, parties have the possibility of developing on their own a settlement as a solution to a dispute. *Ipsa facto*, they limit their own costs, and, what matters most, they may maintain good business relations. In addition to that, a settlement entered into with the participation of a mediator, and next approved by the court of law with the application of the decision of the court of law, is legally valid just as a settlement entered into in the court of law (Article 183<sup>1</sup>, Paragraph 1, of the Code of Civil Procedure) would be. An additional advantage is the fact that, if a settlement is subjected to enforcement with the application of *egzekucji*, the court of law approves it by declaring it enforceable (Article 183<sup>14</sup>, Paragraph 1, of the Code of Civil Procedure).

The introduction of mediation into the legal system provides parties with the choice between developing a shared position and the risk involved in leaving it to the court of law to issue a decision.

<sup>11</sup> Order of the Minister of Justice of 20<sup>th</sup> January, 2016, on Keeping the Register of Permanent Mediators, Warsaw, 28<sup>th</sup> January, 2016, item 122.

It is advisable to promote mediation amongst the representatives of broadly-understood business, as well as amongst professional proxies, in order to prevent long-drawn-out proceedings in the court of law, in which decisions in numerous instances fail to rule in favour of the party which initiated them as well as escalate negative emotions.

In mediation, it is without doubts that both parties emerge victorious, making a decision on their own in relevance to the method of resolving a dispute and the contents of the settlement entered into.

### Bibliography

1. Błaszczak Ł., *Alternatywne formy rozwiązywania sporów – analiza zjawiska na tle prawa polskiego*, [in:] *Czterdziestolecie Kodeksu Postępowania Cywilnego. Zjazd katedr postępowania cywilnego w Zakopanem, Zakamycze, Zakopane 2006*.
2. Coulson R., *The future of private Dispute Resolution in the United States*, [ed.] J.C. Beatancourt, J.A. Crook [in:] *ADR, Arbitration, and Mediation*, Author House 2014.
3. Directive of the European Parliament and the Council 2008/52/EC of 21<sup>st</sup> May 2008 on certain aspects of mediation in civil and commercial cases, *Official Journal of EU*. L136/3.
4. Kopaliński W., *Słownik wyrazów obcych i zwrotów obcojęzycznych*, Warszawa 1967.
5. Tercier P., *ADR in Arbitration*, [in:] *ADR in Business: Practice and Issues Across Countries and Cultures*, [ed.] Jean-Claude Goldsmith, Gerald Pointon, Alpen aan den Rijn 2011, volume II.
6. Act of 17<sup>th</sup> November, 1964 – The Code of Civil Procedure, *Journal of Laws* 1964, issue 43, item 296.
7. Act on 28<sup>th</sup> July, 2005, on the Act on Court of Law Costs in Civil Cases, *Journal of Laws* of 2010, issue 90, item 594.

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# RENTAL MARKET FOR LOCAL PROPERTY IN THE LIGHT OF THE THEORY OF SITUATION CONDITIONS

## *Summary*

*The residential real estate market is a multidimensional structure that results from its impact on economic, social, legal and environmental processes. As a result, there are situations that are unpredictable, especially in the area of consumer behavior. Situational approach, according to which the effectiveness of methods in management depends on the specific situation conditioned by unique components, is the possibility of effective management.*

\* \* \*

## **Introduction**

Over the last few decades a significant change in the approach in the way of business management of the company can be observed.

It has been noticed that dynamic changes in society or the general world, including people, organizations and the market, take place in an increasingly unpredictable way, therefore, none of the many techniques and methods available to managers prove to be reliable in every situation: traditional management methodologies, based on a mechanistic approach and cause and effect thinking, are not able to meet the challenges of modern enterprises.<sup>1</sup> Therefore, there was a need to apply an evolutionary perspective to social sciences, which allowed for the explanation of many difficult to interpret variables. On the path of evolution, looking for the best possible solution, a contingency theory was developed, or a situational approach, according to which the effectiveness of methods in management depends on the specific situation conditioned by unique components.

According to the situational approach the task of managers is to determine which method will best contribute to the achievement of the objectives outlined by management in a particular situation, in specific conditions, and at a particular time. Applying a situational approach depends primarily on the

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<sup>1</sup> T. Kopczyński, *Podjęcie sytuacyjne w zarządzaniu projektami*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2016, no. 421, p. 256

external conditions of the company, forcing to take certain actions, such as expanding the existing range of services, conducting special research on the construction of the product, or improving the organizational structure.<sup>2</sup> Representatives of the situational direction focus on the description and analysis of various conditions, both external and those within the organization, whose character as well as interrelations are a legitimate basis for the use of the organizational model and the specific strategy.

### **Assumptions of the theory of situation conditions**

The situational approach appeared in the 1960s, and gained widespread approval a decade later, its co-founders are P.L. Lawrence and J.W. Lorsch. The situational approach to management has developed due to the failure of universal rules and procedures; the main thesis of supporters of the situational approach was that there is no universal and optimal method of action, but there are many alternatives, one of which may be appropriate only in a given situation and specific, unique conditions. Considering the location of the situational approach in the development of the historical evolution of management theories and concepts, one can notice some subtle discrepancies in this approach. However, in most publications, the situational approach is considered to be a post-classical trend, constituting a platform between the classical and contemporary trends. In this context, the situational approach is attributed to the main achievements of neoclassical school representatives, which is a response to the existing divergences between theory and practice and aimed at reducing the distance between managers and theoreticians in the field of organization and management.<sup>3</sup>

The definition of a situational approach says that it is a management approach that suggests that proper managerial behavior depends on the range of elements, management methods are determined by the broad context of the company's operations and situational factors or contextual variables. The situational approach assumes that it will never achieve such ideal construction and ideal organization order that it will be adapted to every time, all goals, values and all situations, and in the achievements of organizational science there are absolutely bad and ruthlessly good patterns, methods and technician – you only need to know the conditions under which their application will bring the most desirable results.

The main assumptions of the situational school – relativism and pragmatism of management methods – were formulated by H. Sherman in 1966. In accordance with the postulate of relativism, the situational school opposed the absolutization of the principles and indications that formulate management schools, stressing that it is always necessary to know the conditions, in which their application will bring the most desirable results. Pragmatism consists in matching the appropriate theory to reality on the basis of reliable empirical research and applying it in accordance with the requirements of a particular situation.

Pragmatism and relativism of the situational approach do not reject the theory, but assume to fit the reality on the basis of reliable empirical research and its application in accordance with the requirements of specific situations. The creators of the situational school were guided by the idea of creating a practical theory of organization. Situational analyzes do not look for direct cause-and-effect relations, but rather examine the symptoms of good and bad behavior of the organization.

F. Fiedler identified three factors that determine the effectiveness of management in a particular situation, including: relations between the manager and members of the group, the tasks structure and the scope of authority of the managerial position. These factors affect the leadership situation, which in turn determines the success of a particular style of team management. According to the situational

<sup>2</sup> A. Stabryła, *Podstawy zarządzania firmą*, Wydawnictwo Naukowe PWN, Warszawa 1995, p. 122.

<sup>3</sup> M. Grabowska, *Sytuacyjne konteksty ładu korporacyjnego przedsiębiorstw*, Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej, Częstochowa 2016, p. 68.

approach, different organizations require their management to use different rules, methods and techniques, both in regard to the construction and management methods. The distinct features of the individual subsystems should be bear in mind. The most important stage in the management scheme is therefore the correct interpretation of the situation and the selection of a suitable manager for it. Therefore, one of the most important tasks of the manager is to assess the situation and decide which method will be effective in this case. The situational approach also focuses on the essence of relationships between parts of the organization – one should bear in mind that the organization of each type is in direct interaction with its fragment of the external environment, which imposes its specific conditions and determines the level of uncertainty. Depending on the type of organization (the nature of the tasks performed, the technology adopted, the structure and internal processes), the organization's susceptibility to the influence of external forces differs, and the characteristics of the organization's subsystems are also different: strategic, coordination and operational.

The problem of the theory of situational conditions much more widely perceive by D. C. Hambrick and D. Lei, claiming that the situational approach is a kind of compromise and implies an indirect research approach between two extreme approaches to studying control problems in an enterprise:

- 1) a situational-specific approach;
- 2) a universalist approach.<sup>4</sup>

The first approach assumes that the company's strategy depends on the opportunities and threats resulting from the environment in which the company operates, its strengths and weaknesses and the skills of the manager, at therefore it is not possible to formulate uniform rules that can be applied to each company.

The second, extremely opposite universalist approach assumes that there are universal laws and strategies that can be applied in all conditions and all organizations.<sup>5</sup>

Bearing in mind the above considerations, it should be assumed that the situational condition theory is an indirect approach and assumes that one can distinguish specific categories of conditions and groups of companies for which it is possible to identify certain common situational factors that allow for the formulation of certain generalizations.

## Situational factors

According to the theory of situation conditions, the manager's actions depend on many elements, management methods are determined by the broad context of the company's operations and situational factors or contextual variables. According to L. Donaldson, the situation variable is every factor shaping the impact of the organization's character on its functioning. The proposed definition of a situation variable indicates that there is no one closed catalog of factors affecting the structure of the organization. Over the years, a number of studies have been conducted in the area of situational approach, the aim of which was to identify the most important situation variables. The authors of the research present slightly different views regarding the typology of these variables. Table 1 presents the ranges of situational factors proposed by individual researchers.

<sup>4</sup> B. Nita, *Teoria uwarunkowań sytuacyjnych w rachunkowości zarządczej*, Zeszyty Teoretyczne Rachunkowości, tom 71 (127), SKwP, Warszawa 2013, p. 193 – 209

<sup>5</sup> D.C. Hambrick, D. Lei, *Toward an empirical prioritization of contingency variables for business strategy*, Academy of Management Journal, 1985

Tabel 1

Author	Situation variables
J. Fisher	<ul style="list-style-type: none"> <li>▪ external environment</li> <li>▪ competitiveness strategy</li> <li>▪ technology</li> <li>▪ variables regarding to the enterprise</li> <li>▪ factors related to knowledge and observation of achievements and behaviors</li> </ul>
L. Donaldson	<ul style="list-style-type: none"> <li>▪ company's environment</li> <li>▪ size of the organization</li> <li>▪ organization strategy</li> </ul>
J.H. Waterhouse, P. Tiessen	<ul style="list-style-type: none"> <li>▪ environment</li> <li>▪ technological factors</li> </ul>
N.B. Macintosh	<ul style="list-style-type: none"> <li>▪ manager's style of work</li> <li>▪ technological solutions</li> <li>▪ organizational structure</li> </ul>
J. Islam, H. Hu	<ul style="list-style-type: none"> <li>▪ technological changes</li> <li>▪ organizational culture</li> <li>▪ external environment</li> </ul>
B. Wadongo, M. Abdel – Kader	<ul style="list-style-type: none"> <li>▪ size of the organization</li> <li>▪ technological changes</li> <li>▪ organization structure</li> <li>▪ organization strategy</li> <li>▪ leadership</li> <li>▪ organizational culture</li> <li>▪ competitiveness in the environment</li> <li>▪ dynamics of the environment</li> <li>▪ predictability of the environment in systemic terms</li> </ul>
A.K. Koźmiński, D. Latusek-Jurczak	<ul style="list-style-type: none"> <li>▪ situation in the environment</li> <li>▪ size of the organization</li> <li>▪ dominant strategy</li> <li>▪ adopted strategy</li> </ul>

Own elaboration based on: B. Nita, *Teoria uwarunkowań sytuacyjnych w rachunkowości zarządczej*, Zeszyty Teoretyczne Rachunkowości, vol. 71 (127), SKwP, Warszawa 2013, p. 193 – 209; M. Grabowska, *Sytuacyjne konteksty ładu korporacyjnego przedsiębiorstw*, Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej, Częstochowa 2016, p. 68; J. Fisher, *Contingency-based research on management control systems: categorization by level of complexity*, Journal of Accounting Literature, 1995, 14, p. 24

The analysis of the achievements of researchers in the area of identification of situational variables allows to conclude that the most important research on the theory of situation conditions refer to three main factors: the environment, the strategy and the size of the organization.

## **Situational factors on premises rental market**

The theory of situation conditions is also applied on the premises rental market, which for many years has been the subject of research and observation of the author of this work.

The goal of the owner of the premises for rent is to obtain a maximum rent rate and minimize vacancy periods. Having in regard the above objectives, the property manager, who acts as a manager, looks for the best possible strategy adapted to the situational factors in which the property operates. Therefore, it is important to identify the key categories of situational factors on the premises rental market, the observation of which will allow the adoption of such a strategy to meet the expectations and goals of the owner of the premises.

Based on the situational variables identified by the researchers theory of situational conditions, an attempt may be made to analyze the specific categories in detail with reference to organizations involved in renting premises. The most important studies on the theory of situation conditions refer to three main factors: the environment, the strategy and the size of the organization.

In the area of external environment, the following variables can be identified: location, proximity to the university, proximity to office complexes, access to communication, access to public benefit facilities. These factors are important for the manager defining the target group for a given rental space, and as a consequence determine the entire range of subsequent activities, starting with choosing the premises equipment and ending on the choice of the communication channel. Potential tenants of the premises located in a metropolitan area, will be students – close to the university, while potential tenants of the premises located in a small town near the school will be families with children.

Another equipment and standard of premises will be expected by family with children and another by students. There will also be other communication channels addressed to students, and others to people looking for a place for the family.

In addition, very important variables within the category of external environment will be issues of the purpose of the areas near the property, in which there is a premises or plans for owners of neighboring properties. If the construction of a business center or office complex is planned close the property in which the premises is located, then the demand for rental of premises in this area and, consequently, price increases should be expected. In this case, a decision of incrising the standard of the premises should be made in order to meet the expectations of employees of corporations interested in renting. Other actions will have to be taken in case of obtaining information about the planned construction of the nearby railway line. At that time, it might be beneficial to change the purpose of the premises from residential to commercial, and thus change the target group of potential tenants and strategies.

In addition, the company's external environment will be extremely important in terms of law and tax regulations, etc. Strengthening the protection of tenants' rights may have negative consequences for the owners of the premises for rent, for example as regards the possibility of terminating the contract or evicting a non-reliable tenant. On the other hand, the introduction of a lump sum in Poland on registered revenues for lease revenues simplified tax settlements of owners of premises designated for rent and enabled tax optimization of rental income.

Another area of situational factors that will be considered concerns the strategy. The strategy of acquiring tenants amounts to determining the target groups of tenants, defining information channels, conducting negotiations and maintaining the tenant.

Identification of target groups of tenants comes to confronting the features of the premises with the expectations of potential tenants in the context of situational factors in the area of the external environment. Recognition of the target tenant group determines all subsequent activities.

The information channels used to communicate information about the offer should be adapted to the target tenants group. If the offer is directed to older people, then the ads in the local press, on the local

bulletin boards, etc. will be most effective, while in the case when the target group are young people (students) then the opportunities offered by social media should be used.

The aim of the tenant is renting the premises in the required standard at the lowest price. The owner, wanting to minimize vacancy periods, often decides at the negotiation stage to reduce the price or furnish the premises according to the needs of the tenant at the unchanged starting price.

At the stage of contract implementation, it is important to maintain contact with the tenant and to respond flexibly to emerging problems. Many tenants report the problem of the lack of contact with the owner after handing over the premises, even in a situation where there is a failure that the tenant will not be responsible for. Such action on the part of the manager or owner causes that the lease is shortened by terminating the lease agreement or is not extended by the existing tenant.

In the case of the rental market of premises within the group of situational factors related to the organization, we can distinguish the following subcategories: factors relating to the premises as a product, factors related to the ownership form and resources owned by the owners and factors related to the manner of managing the board.

In terms of factors relating to the premises, you can mention: technical condition, intelligent systems functioning in the premises / building, adaptation options of the premises and features of the premises.

The technical condition of the premises and the building is one of the first parameters to be assessed. It is much easier to rent a place in a new, well-maintained building, rather than in an old, seemingly abandoned building built at the beginning of the last century.

Currently, the real estate market puts a lot of emphasis on energy efficiency. Tenants pay attention to systems that reduce media consumption, and thus reduce the cost of maintaining the premises. An obstacle in renting an premises may be electric heating, which is the most expensive system on the market. In this case, the manager should identify the possibility of changing the heating system and assess the level of expenditure necessary to bear.

Very often, in the real estate market, the change of the external environment causes the necessity to change the destination or adaptation of the premises. The increase in the supply of premises for rent in Crakow meant that in the case of premises with a large area, the time of searching for tenants is much longer than in the case of smaller premises. In addition, the rental price per m<sup>2</sup> of space in the case of renting premises with a large area is much lower than in the case of small premises. In order to limit the period of remaining vacant space and lead to an increase in the rental price per m<sup>2</sup> of a premises, it should be take into consideration to divide and adapt the premises into two / three independent, smaller apartments and assess the level of expenses necessary to bear and the period of their return.

The form of ownership of the premises and the possibilities of the owners are variables that will also determine the actions of the manager. A natural person who has no other property outside the premises will have other financial, logistic and organizational possibilities than large company that owns many premises for rent. The need for adaptive changes that in long term will bring significant benefits but require high investment may be beyond the capabilities of a natural person who has no other property outside the premises. The same applies to the advertising and promotion of premises. A lot more aggressive, but also much more expensive promotion can be run by large units that own many premises for rent.

Another category of situational factors that should be identified within the organization are variables related to the manner of managing the premises. The observations carried out on the property rental market indicate that the management is still occupied by the owners, although in recent years, change of this trend has been observed, as more and more apartment owners use the services of professional property managers and real estate agents. Employment professional who knows the characteristics of the market rental of premises, knows the legislation in this area in Poland, protects the landlord against many negative consequences. For example, a lack of knowledge of legal provisions regarding the rights and obligations of the parties to the lease agreement may expose the owner to negative consequences in the form of the inability to terminate the lease agreement in the case of having a non-professional



lease agreement. Moreover, a large supply of companies dealing in real estate management causes that managers constantly raise and extend their qualifications. As a result, a significant part of managers gives advice on home staging and helps owners to make their premises more attractive by introducing changes to the interior design. Also at the stage of the lease contract implementation, the manager takes over all the obligations regarding settlements and contacts with the tenant as well as obligations related to the proper technical functioning of the premises.

Catalog of identified detailed situational factors on the property market is not a closed catalog, as it is not possible to indicate all situations that may occur.

## Conclusion

The theory of situation conditions is also applicable on the premises rental market. The identification of situational factors specific to the premises rental market allows the adaptation of activities to the broadly understood conditions in which the premises are located and a flexible response to changes, which in turn leads to maximizing the profits of the owner of the premises.

## Bibliography

1. Fisher J., *Contingency-based research on management control systems: categorization by level of complexity*, Journal of Accounting Literature, 1995, 14
2. Grabowska M., *Sytuacyjne konteksty ładu korporacyjnego przedsiębiorstw*, Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej, Częstochowa 2016
3. Hambrick D.C., Lei D., *Toward an empirical prioritization of contingency variables for business strategy*, Academy of Management Journal, 1985
4. Koczyński T., *Podejście sytuacyjne w zarządzaniu projektami*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2016, nr. 421, s. 256
5. Nita B., *Teoria uwarunkowań sytuacyjnych w rachunkowości zarządczej*, Zeszyty Teoretyczne Rachunkowości, tom 71 (127), SKWP, Warszawa 2013
6. Stabryła A., *Podstawy zarządzania firmą*, Wydawnictwo Naukowe PWN, Warszawa 1995



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# THE GREEN JOBS AND THE INDUSTRY 4.0

## *Summary*

*This paper presents and discusses The Industry 4.0 and the “green jobs” definitions and their mutual relations. The Industry 4.0 is a synonym for a new age of technological jump based on digitization and extended Internet connection between devices. Next to this progress also important are a sustainable development and its measurable implementation in labour market – green jobs. Green jobs are decent jobs, either in traditional sectors or in the new green ones, which contribute to preserving or restoring a sustainable environment. This combination of innovation and progress approach can be interesting solution not only for business but also for non-profit organisations which are the subject of the research in this paper. Furthermore, the role of non-profit organizations is examined and described in aspect of changes in green economy and The Industry 4.0 with special emphasis on the maintenance of their capital structure.*

\* \* \*

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## **Introduction**

The non-profit organizations are the organizations which have been formed by a group of people in order to pursue, a common not related with income, goal. A non-profit organization is often dedicated to furthering a particular social cause or advocating for a particular point of view. These type organizations are also members of market; moreover, they are more vulnerable in case of any economic instability. Related to the latest economic crisis and growing in this period unemployment rate, especially among young people, in European Union, there is a need for a new approach according to the shape of the future jobs also in non-organizations sector. Once occurred the crisis can repeat, therefore solution how

to avoid its effects is very important. On the other hand the expectation of a nowadays society has been changed significantly. In the past the market was driven by producers. Today this trend from the past is totally inverted and is driven not only by the customers, but also non-profit organizations. The customers' choices are a source of variance in products and services, what induces a direction of progress. Producers and service providers have recognized it and rearranged their factories for high variability of products to aim in better manner the customers' expectation which is nowadays more pro-ecological oriented. This paper proposes an answer for this market challenges as a solution which is an effect of combination of two ideas, namely The Industry 4.0 and the green jobs. These two concepts are combined by technologies related directly with the usage of renewable energy resources and environment protection.

The aim of this paper is to analyse of green jobs creation in the aspect of The Industry 4.0 idea. Second goal of the article is to promote the social development based on sustainability and ongoing progress represented by a green jobs idea. These two goals are based on the research of the non-profit organizations performed in Poland, which are interested in The Industry 4.0 and green jobs or at least one of them.

The methodology used in research is based on a review of available national and foreign literature and research among non-government organizations. Then an analysis of documents related to this program is performed and linked with green jobs. In the near future the jobs can become more challenging for employees, especially in manner of their flexibility in case of time, space or content<sup>1</sup>. Candidates not only should be prepared for their future tasks, equipped with competencies which allow them matching with offered position and ensure them employability. Future work places should be well addressed to future employees. One of the main solutions to face these challenges on this level can be combination of the Industry 4.0 and green jobs, which are nowadays often discussed topic in the various circles – professional and scientific.

## The genesis and definition of the Industry 4.0

The Fourth Industrial Revolution, represented by the digitization and progress in the working conditions is one of the greatest challenges of present time. The digitization is going to be more and more reality through the development in area of Information and Communication Technology (ICT). These elements of The Industry 4.0 can have significant impact in art and way of acting in the economic environment, in working and last but not least in private life. The influence of The Industry 4.0 is so high, that it is proper to call it even The Digital Revolution. At the beginning of this development there was a phase of computerisation, when popularity of computers rose. In this period of time the Internet was in the building up process. After that started the period of microchips and different sensors, which through the years of course have been cheaper and performance of its improved<sup>2</sup>. These were the foundation stones that made first possible the forming of digitized world in shape of The Industry 4.0.

The Industry 4.0 changes qualitatively the whole organisation and management, not only in context of the shop floor management, but entire value creation chains. From idea of to-produce-product, over development and assembly, till to the distribution to the customers, recycling of products and after sale management, everything will be digitized. This manner is also common with the customers' expectations for individual custom desires and wishes<sup>3</sup>. The term The Industry 4.0 suggests that it is already a fourth

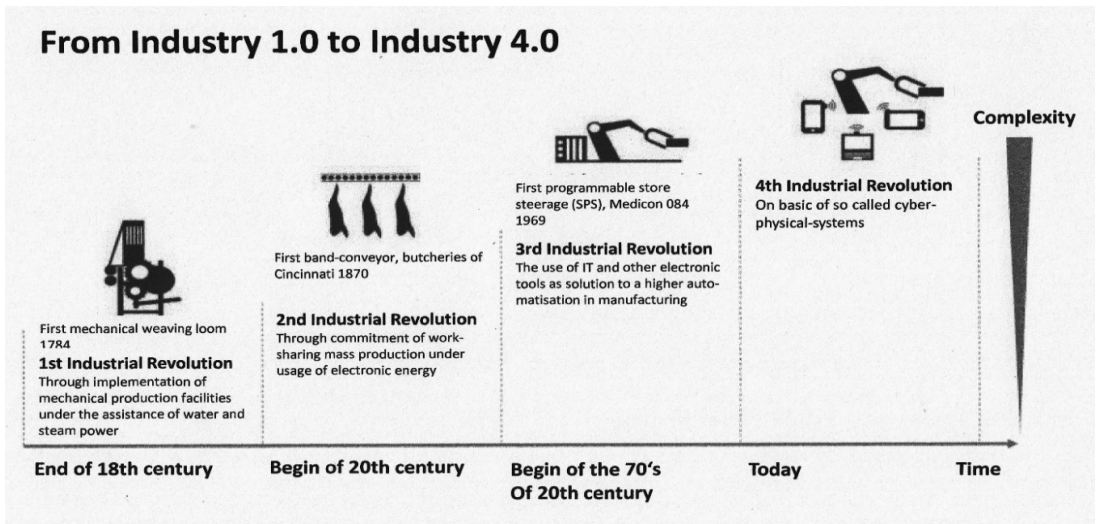
<sup>1</sup> Spath D., *Industrie 4.0; die vierteindustrielle Revolution*, Arbeit und Arbeitsrecht: AuA: Personal, Praxis, Recht; Huss-Medien GmbH, Berlin 2013, p. 385.

<sup>2</sup> Franken S., *Führen in der Arbeitswelt der Zukunft; Instrumente, Techniken und Best-Practice-Beispiele*; Springer Gabler; Springer Fachmedien, Wiesbaden 2016, p. 4.

<sup>3</sup> PlattformIndustrie 4.0, *Umsetzungsstrategie Industrie 4.0. Ergebnisbericht der PlattformIndustrie 4.0*. [http://www.its-owl.de/fileadmin/PDF/Industrie\\_4.0/2015-04-10\\_Umsetzungsstrategie\\_Industrie\\_4.0\\_Plattform\\_Industrie\\_4.0.pdf](http://www.its-owl.de/fileadmin/PDF/Industrie_4.0/2015-04-10_Umsetzungsstrategie_Industrie_4.0_Plattform_Industrie_4.0.pdf), p. 9, (accessed: 13.07.2017).

development stage of the industry related to a timeline. The idea of constant progress is presented on the Picture 1. The sources of progress are mostly discoveries and improvements or small changes which brings better effectiveness and efficiency. All steps of progress need a time to be developed or to understand their impact to the future. The biggest impact of The Industry 4.0 is expected in the productive area like for instance at the machine and plant equipment makers or car manufacturer industry and its whole value chain.

Picture 1: The development stages of industry from 18<sup>th</sup> century.



Source: Kempf D., Bauer W., *Volkswirtschaftliche Potenziale von Industrie 4.0; Präsentation*, p. 2.

Indeed, in the past there were three more industrial subsequent periods defined nowadays by numbers as industry 1.0, 2.0 and 3.0 respectively. The beginning of these forms is dated in the end of the 18<sup>th</sup> century and the last one is present. The picture 1 shows the development from simple first stage with increasing complexity with time 1.0 to the Industry 4.0 (outlined shortly above) have been presented.

In the end of the 18<sup>th</sup> century (during the existence of Industry 1.0) started the very first art of the mechanisms construction – in this case through the usage of water and steam power. In the past was existing only manual labour, which had been to that time partially mechanised through „new work mate” – the machines but still based on human or animal’s force – so it was pre-industrial time. However before the 18<sup>th</sup> century there was also a new development trend of discoveries related to renewable energy sources and machine construction such as: wind-powered machines (i.e.: windmills, vessels and pumps) and water-powered constructions.

During The Second Industrial Revolution the single work processes came to the centre of the interest. Thus the work processes had been optimised through the input of machine tools as the first form of the automation till there<sup>4</sup>. In this period of time the electric energy was in use as a main source of machine power. Besides the first band-conveyor was invented and with this work-shared mass production was able

<sup>4</sup> Schäfer S., *Industrie 4.0 – die smarte Fabrik*, [https://www.ihk-berlin.de/blob/bihk24/produktmarken/branchen/industrie/downloads/2272472/5cdaac4e374ea55713a7ed4e3065ebf3/Vortrag\\_Prof\\_Dr\\_Schaefer-data.pdf](https://www.ihk-berlin.de/blob/bihk24/produktmarken/branchen/industrie/downloads/2272472/5cdaac4e374ea55713a7ed4e3065ebf3/Vortrag_Prof_Dr_Schaefer-data.pdf), p. 6 (accessed: 13.07.2017).

at that time. At the beginning of the 20th century Germany reached already the leadership in several sectors of the economy, such as: chemistry, electro technology, mechanical engineering or optical industry<sup>5</sup>.

The next form of the Industry was Industry 3.0 which lasted from 1969 to 2014<sup>6</sup>. In that time the several IT solutions and electronic tools came into operation. First programmable store steering was invented, just like the first numerical controlled machine tool or the internet<sup>7</sup>. Finally The Industry 4.0 phase, that is now, on the basis of so called cyber physical-systems is the main aim is to optimize or to digitize the whole value added chain (from the design of a product till its after-sales period of time)<sup>8</sup>. All these shall be happen through the networking of digital tools among each other. This circumstance is also summarized as Internet of Things (IoT)<sup>9</sup>. There is no universal definition of the term – The Industry 4.0, which is valid for each field of the industry and is more an idea or approach of description of continuous development of the technology presented on the Picture 1. There are numerous definitions, in this chapter presents. The main idea of The Industry 4.0 is „*the intelligent networking of objects with embedded steering*”<sup>10</sup>. With this software ability will be possible the management of a shop floor nearly without human interaction. In this case is imaginable, that a factory, after incoming new order, is able to realise fully autonomous a custom wish.

Because of the installed communication systems (software and hardware) inside any object it is possible to manage better all processes ongoing in a factory. An example can be here the company, which is using this modern system to be able to response for any issue occurred in the process bottleneck to use better its resources. The maintaining operations, if needed, in this case will last likely shorter, cause the maintenance department would earlier get the information about defects at a specific facility.

IfoSchnelldienst defines The Industry 4.0 as: „*The Industry 4.0 in a strict sense can be considered as synonymous for the Internet of Things. Physical objects are clear identifiable over its IP addresses and communicate to each other via internet (so called cyber-physical systems). These systems of information are connected with other systems and applications*”<sup>11</sup>.

Another definition proposed by the „PlattformIndustrie 4.0” understand under the term – The Industry 4.0 as the „*fourth Industrial Revolution, the one of the new stage of organisation and controlling of the whole value-added chain over the lifecycle of products.*” Further we read “*The basic is the availability of all relevant information in real time through the network of all participated instances along the added value and the ability, from these data at any time deduce the optimal value-added flow. Through the bonding of humans, objects and systems there are created dynamic, real time optimal and self-organized the company comprehensive value-added networks, which can be optimized regarding to different criteria, as spending, availability or consumption of resources*”<sup>12</sup>.

Finally Bauer et al. put in the middle of the Industry 4.0 the intelligent „*networking of humans, machines, objects information and communication systems to dynamic controlling of complex systems, which shall enable independent information exchange between intelligent products, machines and factory equipment, initiating operations and be able to autonomous real-time steering*”<sup>13</sup>.

<sup>5</sup> Bundesministerium für Bildung und Forschung (BMBF). Zukunftsbild „Industrie 4.0“. Hightech-Strategie. Bonn Referat IT-Systeme; 2012, p. 10.

<sup>6</sup> Schäfer S., *op.cit.* p. 7.

<sup>7</sup> Bundesministerium für Bildung und Forschung (BMBF). *op.cit.* p. 10.

<sup>8</sup> Schäfer S., *op.cit.* p. 9.

<sup>9</sup> Schäfer S., *op.cit.* p. 11.

<sup>10</sup> Spath D., *Industrie 4.0; die vierte industrielle Revolution, Arbeit und Arbeitsrecht*. AuA: Personal, Praxis, Recht; Huss-Medien GmbH, Berlin 2013, p. 385.

<sup>11</sup> *Industrie 4.0 digitale Wirtschaft; Herausforderung und Chance für Unternehmen und Arbeitswelt*; IfoSchnelldienst 10/2015; 68. Jahrgang; 28. Mai 2015.

<sup>12</sup> PlattformIndustrie 4.0; *Was Industrie 4.0 (für uns) ist?* www.plattform-i40.de/was-industrie-40-für-uns-ist, (accessed: 13.07.2017).

<sup>13</sup> Bauer W. et al., *Arbeitswelten 4.0 – Wie wir morgen leben und arbeiten*, Stuttgart 2012; p.8.

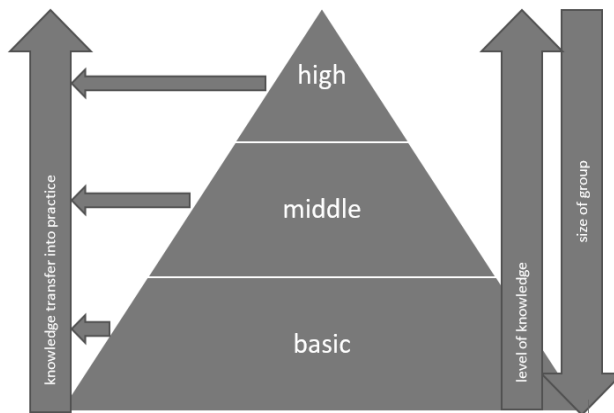
Swetlana Franken understands The Industry 4.0 as: “*the change of professional and private life owing to constant growing spread of the solutions in areas of Information and Communication Technologies*”<sup>14</sup>.

Taking all above into consideration for purpose of this article the Industry 4.0 is represented by digital progress which is also represented by renewable energy sources management and related technology, which change sustainable development idea to practice. Therefore in a universal definition of the Industry 4.0 should not be missing the environmental part which include monitoring of: energy management, factory waste water and electricity usage.

## Green Economy as a source of innovativeness

The Green Economy concept is widely discussed in many circles due to its qualitative and quantitative aspects; however innovativeness is represented by the blue economy concept which originated from the social economy. The blue economy is an idea introduced by Gunter Pauli in his book from 2010, in which author expresses the ultimate aim that blue economy business model will shift society from scarcity to abundance with resources locally available, by tackling issues that cause environmental and related problems in new ways<sup>15</sup>. Therefore it is able to consider the blue economy as a part of bigger idea of the green economy, because Gunter Pauli highlights potential benefits in connecting environmental problems with open-source scientific solutions to achieve sustainable development. This book suggests that human society can focus on the generation more value instead of blindly cutting costs; therefore there is a need to use simpler and cleaner technologies. Indeed, the innovation economy can be combined with green economy approach to create economic benefits and jobs.

Picture 2: The knowledge pyramid



Source: own elaboration based on Wrzecionarz (2010), p. 9-10.

This phenomenon was described by pyramidal model of knowledge transfer<sup>16</sup>. This model states that innovation comes from well-educated small group of society with ideas and knowledge how to “make

<sup>14</sup> Franken S., *Führen in der Arbeitswelt der Zukunft; Instrumente, Techniken und Best-Practice-Beispiele*; Springer Gabler; Springer Fachmedien Wiesbaden 2016, pp.1 etc.

<sup>15</sup> Pauli G., *The Blue Economy: 10 years – 100 innovations – 100 million jobs*. Paradigm Publications USA 2010, p.34.

<sup>16</sup> Wrzecionarz P. [ed.], *Przedsiębiorczość Akademicka Dolnego Śląska*, Media Consulting Agencyy Wrocław 2010, pp.9-10, 16-18.

their dreams come true” (Picture 2). On every higher level of pyramid the knowledge size of group is decreasing, but the degree of complexity of their innovation is also bigger. This model shows one huge limitation of the approach of the blue economy: that limited size group (high) has to way across longer distance, than bigger group of basic education. Explanation is that mostly in high knowledge group presents discoveries, whereas basic knowledge only small improvements.

The green economy is defined as an economy that aims at reducing environmental risks and ecological scarcities, and that aims for sustainable development without degrading the environment. It is closely related with ecological economics, but has a more politically applied focus mostly due to its social dimension in creating so called “green jobs”.

## Green jobs

In the literature of the subject contains many definitions of the term “green job”. Without considering their deeper analysis, it was assumed that defining the concept of green jobs based on Eurostat methodology as Environmental Goods and Services Sector (EGSS) which is heterogeneous set of producers of technologies, goods and services that prevent or minimise pollution and minimise the use of natural resources<sup>17</sup>. Thus, environmental activities are divided into two broad segments: environmental protection and resource management. Only those technologies, goods and services are considered that have an environmental protection or resources management purpose as their prime production objective (i.e. ‘environmental purpose’), hence excluding goods and services that are not provided mainly for environmental purposes<sup>18</sup>. Therefore than can be related with changes described above as The Industry 4.0. This definition is very wide, and includes green jobs and employment in protected areas. Mentioned above green jobs or environmental goods and is based at European level on the eco-innovation idea and sustainable development, which have been undertaken by: the European Commission, the OECD and Eurostat.

The European Commission defines green jobs also as ‘a form of innovation aiming at significant and demonstrable progress towards achieving the objectives of development by reducing the impact on the environment or achieving a more efficient and responsible use of natural resources, including energy’<sup>19</sup>. Therefore the accepted in this paper definition of green jobs is based on the Eurostat and European commission is quantitative.

In Poland, the concept of green jobs is not defined by the Central Statistical Office (GUS) and was not able to indicate similar jobs to European EGSS until 2007 when the Polish Classification of Activities (PKD) was redefined<sup>20</sup>. Green jobs are defined as “decent jobs, either in traditional sectors or in the new green ones, which contribute to preserving or restoring a sustainable environment”<sup>21</sup>.

## Results of the research

The aim of the original research was to examine how non-profit organizations manage their cash levels regarding to new investments such as: implementing The Industry 4.0 and idea of green jobs, if

<sup>17</sup> Eurostat: *Environmental goods and services sector*, 2015, [http://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental\\_goods\\_and\\_services\\_sector](http://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_goods_and_services_sector) (available on 15.07.2017).

<sup>18</sup> GUS, *Działalność innowacyjnych przedsiębiorstw 2006-2009*, Warszawa 2010, p. 48.

<sup>19</sup> European Parliament, *Competitiveness and Innovation Framework Programme 2007 to 2013*, [Pol. Decyzja nr 1639/2006/WE Parlamentu Europejskiego i Rady z 24 października 2006 r. (Dz. U. UE L z 2006, Nr 310, p. 15), preambuła] p.25.

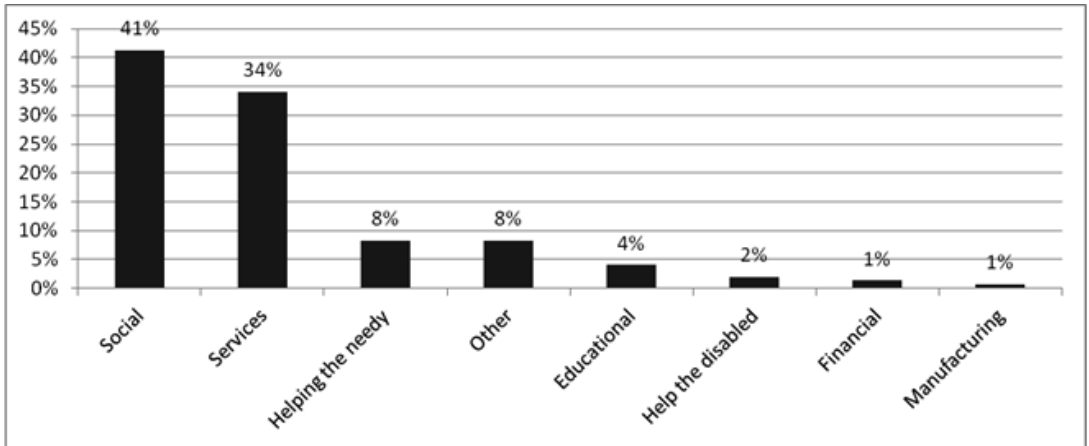
<sup>20</sup> Polish Ministry of Development, *Polish Classification of Activities*, <https://prod.ceidg.gov.pl/ceidg.cms.engine/?D;439165b7-9e89-4efb-8538-43878ad8ea94> (14.07.2017).

<sup>21</sup> Rutkowska-Podolowska et. al., *Green jobs* [in] Kovarova, E; Melecky, L; Stanickova, M. [editors] Proceedings of the 3rd International Conference on European Integration 2016 (ICEI 2016) pp. 822-829.



applicable. From obtained data regarding 543 non-profit organizations in Poland from original research, only 300 were selected, because their profile which can be assigned to one specific group (Picture 3). Only participants which declared interest both in green jobs changes and The Industry 4.0 were selected. Factors of choice were also sustainable development declaration, registered activity and its transparency.

Picture 3: Non-profit organizations activity type.



Source: survey results.

Large number of selected non-profit organizations is related to social issues of local society (41%), whereas 34% are involved to services for individuals or local community. Only small group of non-profit organizations are dedicated to financial sector or manufacturing – 1% in both categories. This results are related also to declaration by majority of non-profit organizations (242 answers), which stated that they classify their organization to social economy (Table 1).

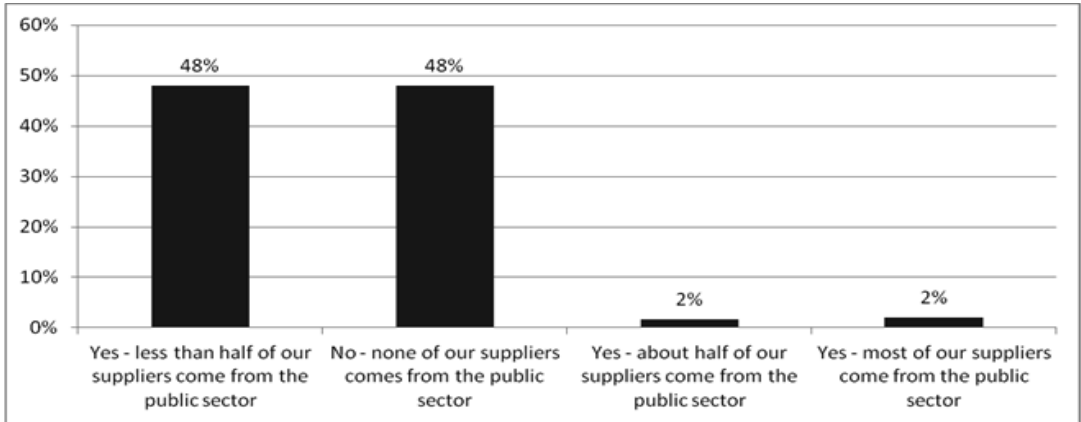
Table 1. Results for question: “Do you classify your organization to social economy”

Answer	Frequency	Percent
Positive	242	81
Negative	54	18
Neutral	4	1
Total	300	100%

Source: survey results

Selected non-profit organizations were analysed by their customers or suppliers affiliation to public sector. Moreover, majority (46%) of these organizations are not connected with public sectors as their customers, but for 37% of answers it is true that less than a half of their customers come from public sector. Results for supplier’s origin are presented on Picture 4.

Picture 4: Non-profit organizations' suppliers' relation to public sector



Source: own research results

The 97% of the respondents indicated that the institution was non-profit and the status was of a public benefit institution. They do not make money; they help others, and are social institutions.

For the surveyed respondents the most important sources of cash were public subsidies, monetary donations and tangible donations, private grants, 1% personal income tax deductions. Grants are non-refundable financial resources transferred to the organizations for the implementation of a particular project. Public subsidies are governed by the law: primarily the Public Finance Act and the Public Benefit and Volunteer Work Act. Subsidies are funds from the state budget, the budget of local self-government units and state-owned special purpose funds designated under the Public Finance Act, separate statutes or international agreements. Their purpose is to finance or co-finance public tasks or investments related to the implementation of these tasks.

Research revealed that non-profit organizations save significant amount of cash to run business as usual, whereas prefer bank loans and European Union programs to support investments related to infrastructure and renewable resource management.

## Conclusion

In connection of The Industry 4.0 non-profit organizations in Poland are customers of solutions developed by producers. Their choice is to invest in pro-ecological solutions is the result of European Union law implementation and European funds or subsidiaries, but also new trend among all non-profit organizations. Although, only few selected non-profit organizations offered green jobs as defined by GUS or Eurostat, all of them influence the business environment to develop this type of decent work places, which helps reduce negative impact on environment or protect it. This change brings attention to green jobs and eco-friendly clean production and renewable energy resources management more effective thanks to digitalization an IoT, two main parts of The Industry 4.0.

However only 4.0% of researched non-profit organizations indicated that their main field of activity is education, they play also important role of non-profit organization in popularization of some innovative solutions among society, what is with accordance with presented pyramid of knowledge. Non-profit organization are first to invest in digital management of their impact on natural environment and undertake pro-ecological actions. Therefore non-profit organizations focused on environmental protection can be recognized as places of implementation of green jobs and The Industry 4.0.

## Bibliography

1. Bauer W. et al., *Arbeitswelten 4.0 – Wie wir morgen leben und arbeiten*, Stuttgart 2012.
2. Bundesministerium für Bildung und Forschung (BMBF), *Zukunftsbild „Industrie 4.0“*. Hightech-Strategie. Bonn Referat IT-Systeme. 2012.
3. *Competitiveness and Innovation Framework Programme 2007 – 2013*, Decyzja nr 1639/2006/WE Parlamentu Europejskiego i Rady z 24 października 2006 r. (Dz. U. UE L z 2006, Nr 310, p. 15), preambuła p.25.
4. *Działalność innowacyjna przedsiębiorstw 2006-2009*, GUS, Warszawa 2010, p. 48.
5. Eurostat, *Environmental goods and services sector*, [http://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental\\_goods\\_and\\_services\\_sector](http://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_goods_and_services_sector) (available on 15.07.2017).
6. Franken S., *Führen in der Arbeitswelt der Zukunft; Instrumente, Techniken und Best-Practice-Beispiele*; Springer Gabler; Springer Fachmedien Wiesbaden 2016.
7. Industrie 4.0; digitale Wirtschaft; Herausforderung und Chance für Unternehmen und Arbeitswelt; IfoSchnelldienst 10/2015; 68. Jahrgang; 28. Mai 2015.
8. Kempf D., Bauer W., *Volkswirtschaftliche Potenziale von Industrie 4.0; Präsentation*, <https://www.bitkom.org/Presse/Anhaenge-an-PIs/2014/April/BITKOM-PK-Industrie-40-07-04-2014.pdf>, (available on 15.09.2017).
9. Pauli G., *The Blue Economy: 10 years – 100 innovations – 100 million jobs*; Paradigm Publications USA, Newark 2010.
10. Plattform Industrie 4.0, *Umsetzungsstrategie Industrie 4.0. Ergebnisbericht der Plattform Industrie 4.0*. [http://www.its-owl.de/fileadmin/PDF/Industrie\\_4.0/2015-04-10\\_Umsetzungsstrategie\\_Industrie\\_4.0\\_Plattform\\_Industrie\\_4.0.pdf](http://www.its-owl.de/fileadmin/PDF/Industrie_4.0/2015-04-10_Umsetzungsstrategie_Industrie_4.0_Plattform_Industrie_4.0.pdf); (available on 15.06.2017).
11. Plattform Industrie 4.0; *Was Industrie 4.0 (für uns) ist?*, [www.plattform-i40.de/was-industrie-40-fuer-uns-ist](http://www.plattform-i40.de/was-industrie-40-fuer-uns-ist); (available on 03.09.2017).
12. Polish Ministry of Development <https://prod.ceidg.gov.pl/ceidg.cms.engine/?D;439165b7-9e89-4efb-8538-43878ad8ea94> (available on 14.07.2017).
13. Rutkowska-Podolowska M. et. al., *Green jobs*; [in] Kovarova, E; Melecky, L; Stanickova, M. [eds.] Proceedings of the 3rd International Conference on European Integration 2016 (ICEI 2016) pp. 822-829.
14. Schäfer S., *Industrie 4.0 – die smarte Fabrik*; [https://www.ihk-berlin.de/blob/bihk24/produktmarken/branchen/industrie/downloads/2272472/5cdaac4e374ea55713a7ed4e3065ebf3/Vortrag\\_Prof\\_Dr\\_Schaefer-data.pdf](https://www.ihk-berlin.de/blob/bihk24/produktmarken/branchen/industrie/downloads/2272472/5cdaac4e374ea55713a7ed4e3065ebf3/Vortrag_Prof_Dr_Schaefer-data.pdf), (available on 14.09.2017).
15. Spath D., *Industrie 4.0; die vierte industrielle Revolution, Arbeit und Arbeitsrecht*. AuA: Personal, Praxis, Recht; Huss-Medien GmbH, Berlin 2013.
16. Wrzecioniarz P. [ed.], *Przedsiębiorczość Akademicka Dolnego Śląska*, Media Consulting Agency Wrocław 2010.





This book presents the contemporary challenges for enterprises and economies, which were divided into the following four thematic parts of deliberations:

- ▶ Determinants of enterprises' management in selected areas.
- ▶ Enterprises' restructuring – legal, economic and social aspects .
- ▶ Innovation in the development process.
- ▶ Internationalization of enterprise activity.

The publication came into existence on the basis of many years' cooperation of Department of Economics and Organization of Enterprises at Cracow University of Economics with representatives of various Polish and foreign scientific centres and individuals coming from economic practice. Within the framework of this cooperation are organized, among others, conferences, seminars and symposiums, which are a platform for exchanging ideas and views. Results of such cooperation are the following English-language books published by the Foundation of the Cracow University of Economics:

- ▶ Borowiecki R., Jaki A. (eds.) (2008), *Enterprises in the Face of 21st Century Challenges. Development – Management – Entrepreneurship*,
- ▶ Borowiecki R., Jaki A. (eds.) (2009), *Global and Regional Challenges for the 21st Century Economies*,
- ▶ Borowiecki R., Jaki A. (eds.) (2010), *Enterprises Facing New Economic Challenges, Management – Development – Restructuring*,
- ▶ Borowiecki R., Jaki A. (eds.) (2011), *Global and Regional Challenges of the 21st Century Economy. Studies from Economics and Management*,
- ▶ Borowiecki R., Rojek T. (eds.) (2011), *Developmental Challenges of Contemporary Economies. Management – Finance – Restructuring*,
- ▶ Kaczmarek J., Rojek T. (eds.) (2012), *Dilemmas of the Contemporary Economy Facing Global Changes*,
- ▶ Borowiecki R., Jaki A., Rojek T. (eds.) (2013), *Contemporary Economy in the Face of New Challenges. Economic, Social and Legal Aspects*,
- ▶ Jaki A., Rojek T. (eds.) (2014), *Managing Organizations in Changing Environment. Models – Concepts – Mechanisms*,
- ▶ Kaczmarek J., Kolegowicz K. (eds.) (2014), *Developmental Challenges of the Economy and Enterprises after Crisis*,
- ▶ Borowiecki R., Siuta-Tokarska B. (eds.) (2015), *Restructuring as the Imperative of Developmental Changes in Economy*,
- ▶ Jaki A., Rojek T. (eds.) (2015), *Contemporary Conditions and Trends in Enterprise Management. Strategies – Mechanisms – Processes*,
- ▶ Kaczmarek J., Krzemiński P. (eds.) (2015), *Development, Innovation and Business Potential in View of Economic Changes*,
- ▶ Jaki A., Rojek T. (eds.) (2016), *Effectiveness and Competitiveness of Modern Business. Concepts – Models – Instruments*,
- ▶ Borowiecki R., Dziura M. (eds.) (2016), *Dilemmas of Restructuring of Modern Economy and Enterprises. Theory – Methods – Practice*,
- ▶ Kaczmarek J., Žmija K. (eds.) (2016), *Expectations and Challenges of Modern Economy and Enterprises. Problems – Concepts – Activities*,
- ▶ Borowiecki R., Kaczmarek J. (eds.) (2017), *The Propensity to Changes in the Competitive and Innovative Economic Environment. Processes – Structures – Concepts*,
- ▶ Jaki A., Rojek T. (eds.) (2017), *Contemporary Issues and Challenges of the Organization Management Process. Models – Implementation – Interrelation*.