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KNOWLEDGE ECONOMY SOCIETY

MANAGEMENT IN THE FACE
OF CONTEMPORARY CHALLENGES
AND DILEMMAS



Edited by
Andrzej Jaki, Bogusz Mikuła

KNOWLEGE – ECONOMY – SOCIETY

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Reviewer

Anna Wójcik-Karpacz

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Introduction

The transformation of the business environment of enterprises by the end of the 20th century to the conditions of knowledge-based economy caused the emergence of a number of new requirements in respect of conducting business activity. Enterprises had to give up a lot of the existing modes of operations, whereas the staff of enterprises had to revolutionise their ways of thinking to those adequate for activities in the conditions of globalisation, constant growth of the level of competitiveness, electronic economy, the growth of the level of networking, the emergence of new ground-breaking innovative solutions in products, services, information systems and management. The occurrence of sudden changes in the economic, social and political environment, as well as “shocks” on financial markets increase constant turbulence preventing the long-term maintenance of the adopted ways of the development and functioning of enterprises, among others in respect of the development of products, the use of computer systems, the maintenance of cooperation arrangements, the retention of suppliers and customers, and even employees.

The common feature of the parts and chapters included in this book is the focus on the broad problems of the conditionings, concepts and methods of managing organisations, useful in the conditions of the special significance and influence of knowledge resources which are considered the prevailing factor of the development of enterprises, national economies and the world economy. The leading threads of the deliberations included in the work are reflected in the isolation of the following four parts of it:

- I. Managing organisations – determinants, strategies and tools.
- II. Selected aspects of human capital management.
- III. Marketing management – contemporary challenges and dilemmas.
- IV. Application problems of modern management.

The first part of the book entitled *Managing organisations – determinants, strategies and tools* discusses, among other things, problems such as the shaping of enterprise strategy, the influence of organisational structure on management, the use of immaterial resources, and detailed problems related to the use of management methods, e.g. project portfolio management, balanced scorecard, outsourcing.

The second part of the work entitled *Selected aspects of human capital management* is dedicated to the issues of human capital management, with special consideration given to the management of employee competences, as well as the conditionings of the contemporary labour market.

The third part of the book, *Marketing management – contemporary challenges and dilemmas*, discusses the problems of contemporary marketing. Therefore, the issue which could not be omitted is shaping relations with customers, which in the conducted deliberations is a common feature in all subchapters presented in this part.

The last part, entitled *Application problems of modern management*, presents a few selected but detailed application problems of management. They concern various problems, from knowledge management within the system of the development of rural areas in Poland, via the problems of management of public organisations, which are an extremely important element of business environment, and finishing with the problem of the assessment of the fixed asset value of a transport enterprise.

This publication is also a part of many years' cooperation conducted between the academic environment of the Faculty of Management at the Cracow University of Economics and the employees and doctoral students of other faculties of the University, with representatives of different Polish academic circles, as well as representatives of foreign academic circles from different countries¹.

¹ See: *Knowledge – Economy – Society. Challenges of the Contemporary World*, Edited by R. Oczkowska, B. Mikula, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2011; *Knowledge – Economy – Society. Dilemmas of the Contemporary Management*, Edited by A. Malina, R. Oczkowska, T. Rojek, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2012; *Knowledge – Economy – Society. Transfer of Knowledge in the Contemporary Economy*, Edited by P. Lula, B. Mikula, A. Jaki, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2012; *Knowledge – Economy – Society. Global and Regional Challenges of the 21st Century Economy*, Edited by P. Lula, B. Mikula, A. Jaki, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2013; *Knowledge – Economy – Society. Challenges of the Contemporary Management*, Edited by A. Malina, R. Oczkowska, T. Rojek, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2013; *Knowledge – Economy – Society. Dilemmas of the Economic Resources Management*, Edited by R. Oczkowska, G. Śmigielska, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2014; *Knowledge – Economy – Society. Contemporary tools of Organizational Resources Management*, Edited by P. Lula, T. Rojek, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2014; *Knowledge – Economy – Society. Contemporary Organizations in the Process of Institutional Transformations*, Edited by A. Malina, R. Oczkowska, J. Plichta, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2014; *Knowledge – Economy – Society. Managing Organizations: Concepts and Their Applications*, Edited by A. Jaki, B. Mikula, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2014; *Knowledge – Economy – Society. Problems of Management and Financing Economic Activity*, Edited by R. Oczkowska, G. Śmigielska, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2014; *Knowledge – Economy – Society. Challenges and Development Trends of Modern Economy, Finance and Information Technology*, Edited by A. Malina, R. Oczkowska, J. Kaczmarek, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2015; *Knowledge – Economy – Society. Challenges of Contemporary Economies in the Face of Global Market Conditions*, Edited by R. Borowiecki, A. Jaki, P. Lula, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2015; *Knowledge – Economy – Society. Reorientation of Paradigms and Concepts of Management in the Contemporary Economy*, Edited by B. Mikula, T. Rojek, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2015; *Knowledge – Economy – Society. Challenges for Enterprises in Knowledge-Based Economy*, Edited by R. Oczkowska, G. Śmigielska, Faculty of Management

The editorial and authors' team hope that the book will be the source of valuable knowledge for scientists, lecturers, students and practitioners engaged in organisation management and new inspirations in respect of the issues described.

Andrzej Jaki, Bogusz Mikula

of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2015; *Knowledge – Economy – Society. Challenges and Development of Modern Finance and Information Technology in Changing Market Conditions*, Edited by A. Malina, R. Węgrzyn, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2016; *Knowledge – Economy – Society. Contemporary Aspects of Economic Transformations*, Edited by P. Lula, T. Rojek, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2016 and *Knowledge – Economy – Society. Strategies, Concepts and Instruments of Management*, Edited by R. Oczkowska, A. Jaki, B. Mikula, Faculty of Management of the Cracow University of Economics – Foundation of the Cracow University of Economics, Cracow 2016.

PART I

MANAGING ORGANIZATIONS – DETERMINANTS, STRATEGIES AND TOOLS



Chapter 1

Economics and Management – Relations in Various Dimensions

Stanisław Marciniak

1. Introduction

The article discusses the testing of strength and range of relations between economy and management. The author aimed at presenting as many dimensions of the relations as possible. He has selected and has justified his choice of two basic types of relation at micro/macro and discipline levels that affect effectiveness and efficiency. He pointed out that relations at macro/micro and discipline level occur between paradigms, laws and rules applicable both in economy and management. The second part of the article attempts at solving the optimization problem of economic solutions in the conditions of various functional dependencies in the economic area.

2. Characteristics of relations in economy and management (on paradigms, laws and rules level)

Testing relations between economy and management is a very interesting research topic, both in theoretical and application approach¹. The relations may occur in various dimensions, e.g. macro and micro, field, time etc. When undertaking to present the topic one must define what is the relation between economics and management and how it occurs, what the strength and range is. The discussed research topic involves i.e. the selection of the applied management methods depending on the binding economics paradigm to which I devoted one of my earlier articles (Marciniak, 2016).

Relation understood in the presented approach to the topic is, above all, the influence of the condition and the accepted trends in economy in the broad aspect on the adequate management method that enables to implement as much as possible the previously defined actions objectives,

¹ The article assumes the equivalence of terms since it is difficult to talk about the dominance of one discipline over the other one. However, it is worth pointing out that in the cause and effect dimension economy is predominant.

so called optimization. The achieved goals are identified through the accomplished efficiency and effectiveness level. The condition and trends in economy development are characterized by the adopted paradigms which, in turn, affect the binding laws and rules. Management, that in the presented understanding should absolutely take into account the current state and economics trends, is usually defined through paradigms, laws and rules adequate to the current situation, and it should apply the proper methods of solving particular tasks in economic and technical, as well as social or environmental area.

Taking into account the historical aspect, we observe that both in economy and in management the binding paradigms depend on the level of civilizational development that is determined by social, economic and technical development. It is directly connected with the historical period. In line with the common way of thinking we may conclude that due to the civilizational development during the 1990's the basic economy paradigm was transformed from the strictly economic approach to a broader approach of social, economic and environmental character. Simultaneously this phenomenon occurred also in the area of management science.

It must be also noted that some of the most important laws of economy and management as a rule behave in a universal way and even when paradigms change they do not tend to undergo a change. It occurs for laws such as law of value, law of marginal costs, law of comparative costs etc.

On the other hand, both macro-, and micro-economic rules are much more flexible due to the dynamics of the changes occurring in the environment. When presenting the issue of flexibility, we may observe big dynamics of changes in the environment characterized also by significant turbulence in the recent years, which brings about prompt changes of the binding rules.

From the perspective of economic theory one may distinguish three basic praxeological rules of functionality in the micro-economic, marketing and market dimension that will be discussed further.

In the field of economic science each rule should secure the fulfilment of a function. For example microeconomic rules consist of securing the proper and efficient relations shaping between:

1. Economic unit and the market (economic rule).
2. Economic unit and the client (marketing rule).
- Economic unit and the competition (market rule).

On the other hand, when analysing macroeconomic rules, we will notice that they mostly apply to the perception of balancing:

1. Finance and economic development.
2. Environmental protection and economic development.
3. Social development and economic development.

Summing up, we observe that both groups of rules affect relations shaping between economics and management. It is necessary to take it into account in order to obtain action rationality and efficiency both in the short term and in the long term.

3. Dimensions and relations

In literature we may distinguish a number of dimensions where relations between economy and management occur (Kamerschen et al., 1991; Griffin, 2002; Drucker, 2005; Taylor, 2006; Samuelson & Nordhaus, 2012; Milewski & Kwiatkowski, 2013; Stiglitz, 2013). The best-known analysis regard relations between economy and management occurring in dimensions

of the economic unit (macro-, meso-, micro-). Such relations reflect the influence of e.g. legal, financial or fiscal systems on the behaviours of particular managers in various-size economic units in the areas of their decision-making. This behaviour may be varied depending on the size of the entity – particular laws (acts, directives) have different influence on macro-, meso-, and micro-enterprises, which is the state conscious economic policy, called interventionism. When studying relations between economy and management effectiveness it must be noted that, in order to achieve the proper level, what may be of no less importance is the analysis of relations in field dimensions such as detailed analysis in human resources, capital resources and various analysis in financial management. The two main dimensions of real relations will be further discusses later in the publication.

Takin up this subject, it should be noted that more and more often new dimensions of relations arise, occurring between phenomena than need to be given more attention. The dimensions include the spatial dimension that is connected with globalization and integration processes, the political dimension, and above all, the time dimension connected with growing necessity to research various future perspectives

The necessity to conduct research in the spatial dimension (otherwise known as integrational), is directly connected with globalization and economic integration. It should be noted that whereas the economic unit as a rule does not affect globalization processes (apart from the world economic superpowers), in many cases it determines the scope of integration. The willingness to integrate is usually caused by benefits that result from economy laws and rules that determine management (e.g. economies of scale). The political dimension is above all, the way to shape economy – management relations by the implemented economic policy. Whereas the time dimension is mainly the approach to long-term economic processes that allows to foresee the shaping of relations between economy and management in time. We may increase effectiveness and efficiency of the taken decisions in the near or distant future by skilful prediction of the relations, thanks to anticipatory measures. Due to the importance of the subject of new relations dimensions another publication should discuss the new dimensions of relations in depth.

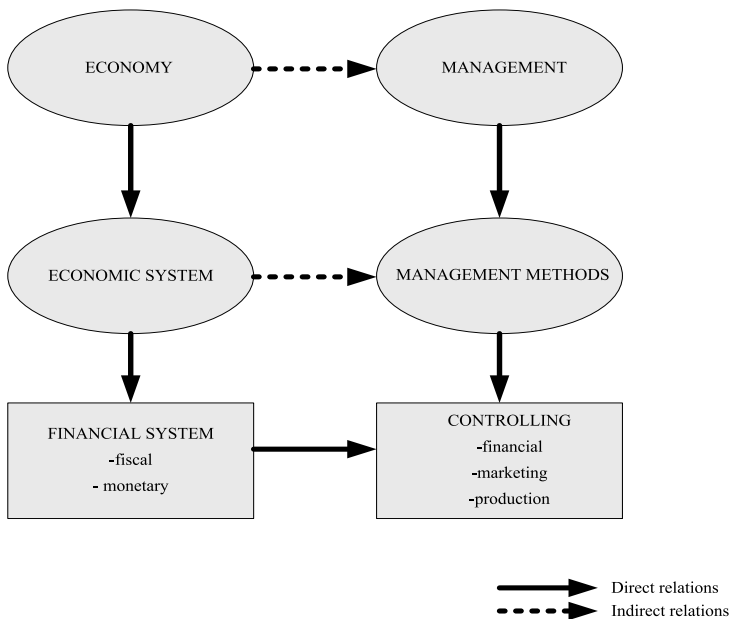
Relations between economy and management occur in various dimensions, as well as on various levels. Then, so called relations chains that for example determine the choice of the management method adequate to the economic situation may occur. The phenomenon occurs in controlling, where the structure of the financial controlling model or marketing depends directly on the functioning economic system. An example of a relations chain has been presented in Figure 1.

4. Relations in macro-, meso- and micro- dimensions

Relations that occur in macro-, meso- and micro- dimensions result from the basic and classic dependencies between economy and management². The first dimension of dependencies that has been introduced is most often presented in macro, meso and microeconomic relations with all possible organizational levels. These relations form a complex of economic links (see Fig. 2).

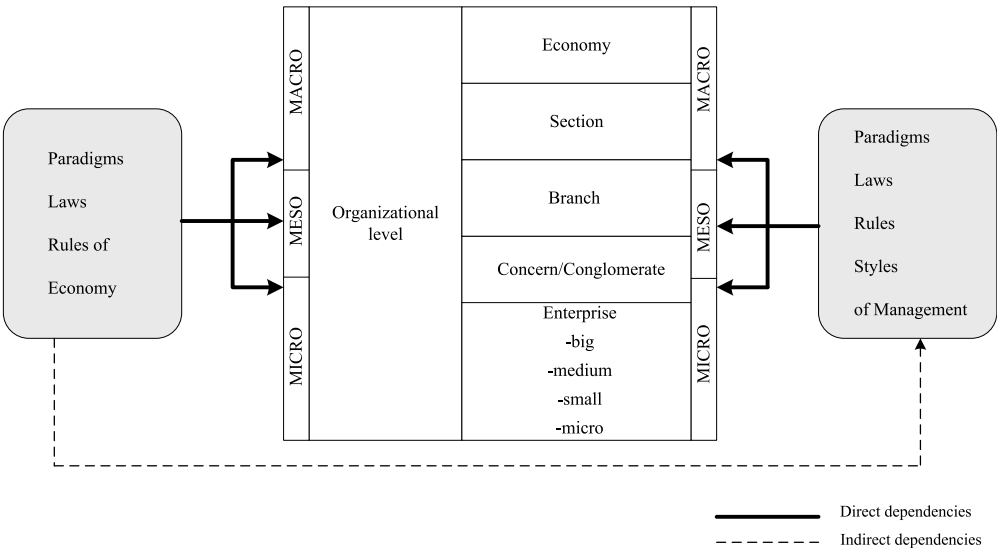
² The basic dependency is reflected i.e. in the evaluation of the operating process, determined both by economy, as well as by management, the classic dependency is the result of the management or economy theory e.g. internal dependencies in the organization structure.

Figure 1. Examples of relations of the management method and the field of economy functioning



Source: own elaboration.

Figure 2. Conceptual diagram in dimensions of macro, meso and micro relations



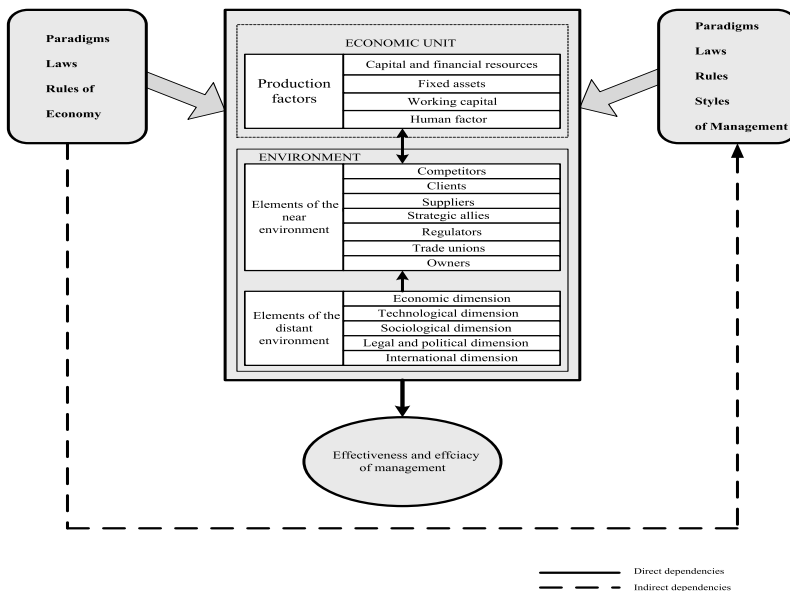
Source: own elaboration.

Researching relations in macro, meso and micro organizational dimensions is the result of the adopted classical approach to both fields of science that are distinguished by macro and micro research and analysis in economic theory and in management theory. The consequences are the taken and then implemented decisions regarding various economic tasks that the particular units face. Special attention must be paid to the meso level that is not always distinguished. It has, above all, organizational character and it applies both micro and macro solutions. When researching relations in the presented dimension one must take into account the specific laws and rules characteristic only for the selected organizational levels that may be and usually are interlinked. Analysing relations, one must remember that universal laws are also binding in economy, independent of the analysed levels, such as some binding fiscal or banking solutions. It would appear appropriate to emphasize the rule that with the increase in intensity of integration and globalization processes, the role of paradigms, laws, rules and management methods of universal character increases.

5. Relations in field dimensions (production factors, elements of near and distant environment)

The second distinguished dimension is the research into shaping relations of field character and their influence on the evaluation of effectiveness and efficacy in the application of production factors of an economic unit. The research dimension in field areas regards the analysis of production factors, as well as the influence on effectiveness and efficacy of the near and distant environment. The complex of such links has been presented in Figure 3.

Figure 3. Conceptual diagram in dimensions of field relations in an economic unit



Source: own elaboration.

There are a lot of classifications of the near and distant environment elements. The elements of near and distant environment have been presented in Figure 3 according to the classification described in the work of R.W. Griffin (2002).

Researching relations in field dimensions is the consequence of the classical approach to management that distinguishes the internal dimension of the economic entity and its near and distant environment. When adopting such a research approach we may observe that specific laws and rules occur in both disciplines of knowledge, typical for some elements distinguished in the presented dimension, such as for example the internal characteristic of an economic entity which is characterized by human resources, tangible and intangible assets. Similarly, the regularity also applies to the near environment that mainly encompasses the behaviours of competitors and clients, as well as the distant environment which regards shaping legal, financial, environmental and social rules that include economic entities at large. Elements of near environment have micro-economic character, whereas elements of distant environment have mainly macro-economic character. At the same time, when looking into relations, and then the evaluation of the factors that occur in a system in a particular period, it must be remembered that the organizational unit must also comply with laws and universal rules. They are mostly laws and rules independent of dimensions and time that the research refers to. In many cases they may determine the behaviour and level shaping of many listed internal and environment factors³.

6. Optimization of economic activities in the conditions of various existing functional relations in the material and financial field

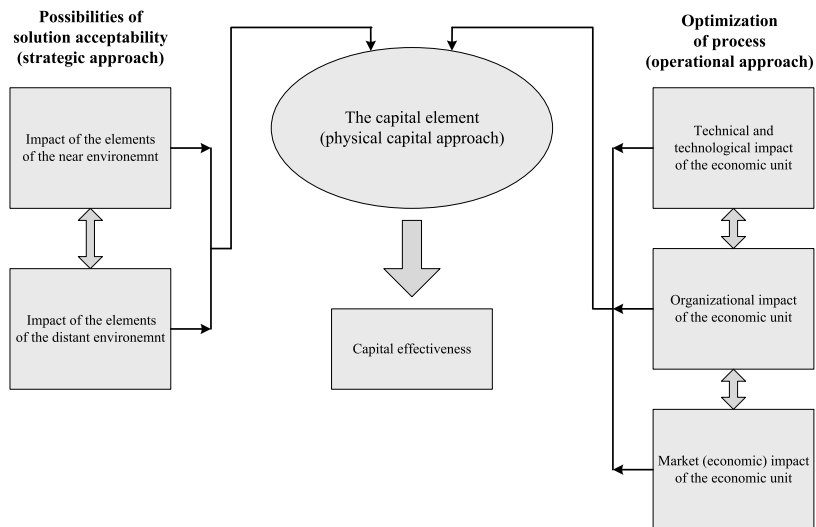
The existing functional relations occurring in dimensions of various elements (factors) of the economic unit tend to be the main determinant of choice of the optimum economic activities. It mostly applies to the field dimension, although it may occur for example in the macro/micro dimension. Functional dependencies in the field dimension are described by the possibility to obtain factors (acceptance criterion) as well as expenditures, effects, costs and effectiveness (optimization criterion). Examples of relations in the area of capital element (factor) in the field area have been presented in Figure 4.

The approach presented in Figure 4 is systemic and it defines the determinants that shape the effectiveness of physical capital comprehensively as well as unequivocally. Similarly, one may present the existing functional dependencies regarding other production factors, i.e. working capital and the human factor, although when it comes to the human factor the dependencies may turn out to be more complicated due to its complexity.

Analysing the partial conditioning of optimization of economic activities is often necessary although the holistic approach to conditioning is more purposive from the perspective of the future efficacy and effectiveness (Marciniak, 2014). This way of studying a problem has been presented in Figure 4. The correct analysis of optimization conditions in the holistic approach is the basis for studying relations in various dimensions between economy and management. And the necessity of skilful and effective research into these relations in order to achieve decision optimization is the key thesis of the paper.

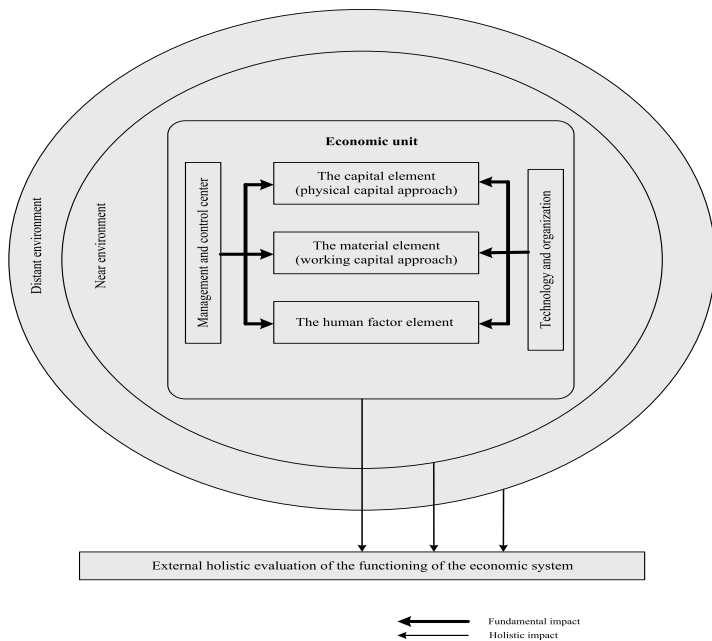
³ The topic is thoroughly discussed by authors in the field of macroeconomics, such as: Kamerschen, Samuelson, Nordhaus, Stiglitz, Milewski.

Figure 4. Conditioning of optimization of economic activities in the capital field (physical capital approach) in the field dimension



Source: own elaboration.

Figure 5. Holistic approach to conditioning of economic activities in various fields



Source: own elaboration.

7. Conclusion

When summing up the topic of the existing relations in various dimensions between economy and management, it should be pointed out that they have the following characteristics:

- they are very often strong and strict,
- they are diversified,
- they have hierarchical character (as a rule, economic rules dominate management methods and styles),
- they occur in many dimensions,
- taking them into account determines the achievement of the goal (efficacy and effectiveness character).

Therefore, it may be stated that if we do not study and take into account the occurring relations in economic practice, we will not be able to speak of the rational management regardless of the organizational level or the type of the analysed economic entity.

Bibliography

1. Drucker, P.F. (2005). *Praktyka zarządzania*. Warszawa: MT Biznes.
2. Griffin, R.W. (2002). *Podstawy zarządzania organizacjami*. Warszawa: PWN.
3. Kamerschen, D.R., McKenzie, R.B., & Nardinelli, C. (1991). *Ekonomia*. Gdynia: Fundacja Gospodarcza NSZZ Solidarność.
4. Marciniak, S. (2014). Ocena efektywności przedsięwzięć techniczno-organizacyjnych – ujęcie holistyczne. *Zeszyty Naukowe Politechniki Śląskiej*, 73, 399-407.
5. Marciniak, S. (2016). Metody zarządzania w świetle nowej ekonomii. *Przegląd Organizacji*, 1/2016, 4-9.
6. Marciniak, S. (2008). *Controlling. Teoria. Zastosowania*. Warszawa: Difin.
7. Milewski, J., & Kwiatkowski, E. (2013). *Podstawy ekonomii*. Warszawa: PWN.
8. Samuelson, P.A., & Nordhaus, W.D. (2012). *Ekonomia*. Poznań: Rebis.
9. Stiglitz, J.E. (2015). *Ekonomia sektora publicznego*. Warszawa: PWN.
10. Taylor, F.W. (2006). *The Principles of Scientific Management*. New York, London: Harper & Brothers.

Chapter 2

Praxeological Concept of Evaluation of Undertaken Actions – Theoretical Approach

Ewa Koziń

1. Introduction

A reaction to the dynamics of changes which can be observed in the surrounding environment is a development of management sciences. In contemporary publications from the scope of management one can observe a formation of new concepts and outlining of new fields of research. A noticeable development of management sciences is of cumulative character. Multiplicity of schools, approaches and concepts of management enriches and inspires further researching quest. However, the development of management sciences itself positively assessed sometimes complicates the arrangement of key categories. One of current problems is a praxeological approach to problems of assessment of organization and undertaken actions (e.g. processes, projects). Praxeology as a theory of efficient operation is a universal concept which did not become outdated, despite a long history connected with a development of praxeological thinking rooted in philosophy of practicality. Currently it is used for assessment of various actions. Contemporaneously, in the literature on the subject the models with one or more criteria are formed serving for praxeological evaluation of an organization and undertaken actions. Making inquiries into the literature on the subject one may perceive a sectional approach to using praxeological measurements, contained in a general category, which in the Polish praxeological school is “efficiency”. The purpose of the article is drawing the attention to the problems of:

- forming concepts of evaluation of effects of actions undertaken in an organization in a praxeological dimension,
- a lack of compatibility in the interpretation of a category of efficiency both in the Polish and foreign literature, what affects the comparativeness of results of conducted research.

2. Development of praxeological thinking

Origins of shaping and development of praxeological thinking can be found in philosophy. In the 4th century BC Aristotle, assuming a degree of abstraction as a criterium as a division of philosophy differentiated among theoretical philosophy as well as practical philosophy, which

he referred to human actions (Tatarkiewicz, 1981, pp. 104-122). Considerations, concerning the philosophy of practicality, were continued by I. Kant, who noticed the supremacy of practical reasoning over theoretical reasoning when deciding upon antinomy of actions which occur in reality (Tatarkiewicz, 1981, pp. 177-179). A significant contribution into a development of praxeological thinking was brought by a Polish philosopher T. Kotarbiński. He created a unique system of philosophy of practicality in connection with sciences of practical character, i.e. as an example, the science on organization and management. T. Kotarbiński included the following concepts into the philosophy of practicality (Gasparski, 1990, t. XI, pp. 9-17):

- felicitology¹, a doctrine of which is practical realism, i.e. a human approach characterized by benefit to members of the society;
- proper ethics, as it was characterized by T. Kotarbiński, which is independent from ideology. Ethics focuses on moral assessment of human actions;
- praxeology the subject of which is an analysis of all real purposeful actions in practice and their assessment on account of efficiency.

A term praxeology comes from Greek words: *praxis* what denotes activity, action, and *logos* meaning science, therefore praxeological is a science dealing with actions, which have a valour of “good job”, which T. Kotarbiński wrote about in his work titled: *Traktat o dobrej robocie* (1955, English translation: *Praxiology. An introduction to the science of efficient action*). Praxeology is oriented on actions on high level of efficiency (Stabryła, 1977, pp. 5-6). The creator of the Polish praxeological school T. Kotarbiński defined praxeology as a science on efficiency of actions, searching for the broadest generalizations and improvements of the manners of activity as well as introducing a system of notions and forming directives, i.e. recommendations enhancing the efficiency of actions and avoiding inefficiency (Kotarbiński, 2003, p. 111).

3. Praxeological forms (valours) of assessment of actions

A subject of praxeology is an activity which is perceived as a purposeful, aware and voluntary human behaviour (Trocki & Juchiewicz, 2013, p. 17) The purpose of activity concerns the future, i.e. it is anticipated by an acting entity (*homo faber*). The assessment of actions may be considered *ex ante* and *ex post*. Praxeological considerations focus on three principal motives (Bednarski, 1998, pp. 89-90):

- ordering, connected with explanations of basic valours of effective activity,
- normative, opinionating conditions which must be met in order to refer to an action as effective,
- postulative and valuating, connected with analysis of all actions realized in practice with a view to meeting conditions necessary to achieve efficiency.

Pursuant to an inquiry of the literature of the subject one may differentiate two approaches to forming models of evaluation of actions with regard to their efficiency:

- multi-criteria approach including basic forms (valours) of efficient actions, i.e. effectivity, economics and profitability,
- one-criteria approach, using a one-element form of efficiency.

¹ T. Kotarbiński's interest in praxeology was reflexed in his doctoral thesis.

Coming to discussion of a form of effective action one must explain that in the Polish praxeological school a notion of “efficiency” is the most general category of assessment of actions which includes basic valours of efficient actions, i.e. effectivity, economics and profitability. Depending on a kind of actions their basic assessments may be supplemented by additional measurements of efficiency, such as: *exactness, simplicity, success, reliability, (feasibility)*.

Therefore, one may ask a question – what action in a praxeological dimension is considered as efficient? – a reply to this question may be such an action which in the first place achieves the goal and meets the criteria of efficiency, subject to gradation. T. Kotarbiński includes the following into the basic criteria of efficiency: effectivity, profitability and economics (Kotarbiński, 1973, p. 10).

Efficiency in praxeological approach is an ambiguous notion, referring to practical valours of actions. T. Kotarbiński analyzes efficiency in a synthetic and universal sense. In a synthetic sense efficiency is the entirety of practical valours of actions, assessed positively. If two actions are to be analyzed, out of which the first one is more efficient than the other it means that it is more effective, economic (economical productive), rational, profitable. Synthetically perceived efficiency in practice means the possession of the highest number of valours of good job (all of them in the best-case scenario) and that to the highest degree (Kotarbiński, 1973, p. 117). Whereas the efficiency in a universal sense is each of the valours of good job separately (Pszczółowski, 1978, p. 227).

J. Zieleniewski additionally introduced an explanation of efficiency in a general, realistic and methodological sense. A general sense of efficiency means efficient action which is efficient due to any characteristics, considered as more valuable in a given situational context. In other words, a minimal degree of effectivity of reaching the goal is already the characteristics of effective action in a general sense. A remark stating that: “no action will be called effective in a general sense if we did not expect that it will procure at least the minimal effectivity” is meaningful (Zieleniewski, 1981, p. 234).

However, the realistic effectivity refers to an action which in reality corresponds to criteria of efficiency proper in a given situation. This effectivity in methodological meaning refers to effectivity of an acting entity which – knowing the conditions of a given action did everything to assure the real efficiency of actions (Zieleniewski, 1981, pp. 303-305).

A notion of effectivity, being one of the basic valours of efficiency, is dimensionless and basically connected with implementation of purposes of actions. “Such action is effective which to some degree leads to “an effect intended as a goal”. The measurement of effectivity is only a degree of reaching the goal (achievements, making reaching the goal possible or easier). When assessing the effectivity, the cost is disregarded and among elements of useful result only foreseen effects are taken into account” (Kotarbiński, 1969, p. 113). Such action is effective which aims at reaching the goal, i.e. there is harmony between result and goal. One can differentiate gradable and non-gradable effectivity. If a manager states that a task was carried out – then we are dealing with non-gradable effectivity, however, when a manager assesses a percentage of its completion, then we are dealing with gradable effectivity. Assessment of a kind of effectivity depends on a formulated goal. When the goal is achieved only partially, then such action is not effective².

² Ineffective action is such action whose threshold of effectiveness despite rational expenditure of resources in a given situation has not been achieved.

Another form of efficiency is *profitability*. Profitability is a nominated dimension (measurable), defined in units of valueness³ (Zieleniewski, 1964, pp. 234-240). An action may be called profitable when the achieved useful result is higher than the incurred cost of action. When costs of action (C) exceed the result (R), then an action is unprofitable. When both parameters are equal, then an action is neutral from a point of view of profits. One can write it down in a form of the following mathematical relations:

$R > C$ – profitable action,

$R = C$ – action is neutral in regards to profits,

$R < C$ – unprofitable action.

A notion of efficiency in a universal sense is *economy*. Economy is a non-dimensional parameter connected with the same dimensions which appear in a definition of profitability. Economy is expressed in a ratio of a useful result (R) to costs of actions (C), what can be written down in a form of the following relations:

$\frac{W}{K} > 1$ – action is economical,

$\frac{W}{K} = 1$ – action is neutral from a point of view of economy,

$\frac{W}{K} < 1$ – action is not economical.

Therefore, economical actions are described with an economic value higher than one.

Effectiveness is a component of evaluation of action in a universal sense, used as tantamount to efficiency and with one of its criteria, i.e. effectivity. T. Kotarbiński defined effectivity as a “positive characteristics of activities giving a result evaluated positively regardless whether it was intended (efficacious and effective action), or unintended (efficient)” (Kotarbiński, 1971, p. 79). T. Kotarbiński stressed that effectiveness concerns not only the intended effects but also those which appeared regardless of the intentions of an acting entity and their assessment is positive (Kotarbiński, 1970, p. 79). However, in economy a notion of effectiveness is perceived as a ratio between the value of incurred expenditures and the value of effects obtained owing to these expenditures. Measurement of economic effectiveness of a technological process is performance (productivity) costs, as well as technological quality.

Effectiveness is not an unambiguous notion. One can differentiate three meanings of effectiveness:

- subject effectiveness, expressed in cognitive results of scientific research when their results contribute to the general development of science,
- social effectiveness of research which is connected with a change in social approach affecting humanization of interpersonal relations,
- economic and technical effectiveness of research which is the greater, the greater the benefit for economics and technology (Sokołowski, 1970, p. 23).

Effectiveness refers both to actions as well as organization, and also is based on an assumption that organizations are established for realization of specific goals, and a measurement of effectiveness of their actions is a degree of achieving these goals. So perceived assessment of effectiveness in their creative output is presented by M. Weber, R. Bechard and K. Doktor.

³ J. Zieleniewski introduced a notion of “valueness” in place of a term “value”, which is defined in economy.

The remaining forms of assessment of efficacy of actions includes, i.e.:

- exactness, i.e. production of a product as closely resembling a model (project) as possible (Kotarbiński, 1973, p. 117);
- purity, which in a context of a good job refers to a defect-free product. J. Zieleniewski, by analogy to the purity of a product speaks about the purity of action. Purity of action means a lack of negative side effects which would put reaching the goals at risk (Zieleniewski, 1981, p. 238). Pure action is the effective action (Pszczółowski, 1978, p. 42);
- *simplicity*, which does not exclude complexity, but combines simple elements. Simplicity leads to achievement of the goal. The opposition of simplicity is complexity which may trigger chaos (Pszczółowski, 1978, p. 190);
- success, which may be defined as efficacy on account of indirect goals which are cohesive with direct goals;
- *energy*, which is a characteristic of an acting entity, aiming to achieve the goal in an active and creative manner, using all necessary resources. The opposition of energetic action is dilatory action which is ineffective (Kotarbiński, 1970, p. 199; 1973, pp. 128, 369);
- *reliability, feasibility*, which is an important form of efficiency, referring both to an acting entity as well as to an object (system). Reliability of a man means solidity and compliance in action. Reliability of an object means the probability that an object will be in a working order in a specific time, i.e. it will be functioning and performing appointed tasks (Pszczółowski, 1978, p. 137).

4. Interpretation of a category of effectiveness in Polish and foreign literature

Analysis of foreign language publications from the scope of management does not make it easier to perform unambiguous interpretation of basic categories of efficiency in juxtaposition of the output of the Polish praxeological school, which treats efficiency as the most general assessment of action, containing other more specifying categories and supplementing it. In the pertinent literature both foreign and Polish, one may notice a tendency to use single praxeological measurements in assessment of actions (e.g. an assessment of managerial actions in a context of efficacy). Already the lexical analysis alone of basic categories of efficiency is difficult and ambiguous. The problem lies in finding appropriate equivalents for Polish-language categories such as: efficiency, efficacy, effectiveness, economy, and their English language definitions such as: *effectiveness* and *efficiency*. In the English language *effectiveness* means effectiveness and efficacy, and *efficiency* means effectiveness, productivity and efficiency. The interpretative complexity of categories of efficiency in Polish as well as in foreign literature makes it difficult to achieve the semantic universalization of notions as well as of the scopes of assessment concerning the undertaken actions. Discrepancies in interpretation of praxeological categories and using them in the assessment of undertaken actions and systems also concern particular disciplines, i.e. economy, management and sociology. A lack of a cohesive system of interpretation of basic praxeological categories makes it difficult to perform comparative analysis of results of research.

In Poland as well as abroad, the first assessments of efficiency were connected with a category of *efficiency* and referred to the actions concerning production. Category of efficiency was used by K. Adamiecki in his research, as well as F.W. Taylor, H.C. Emerson, Z. Rytel.

In consequence of the development of the Polish school of praxeology and the publications of T. Kotarbiński, T. Pszczołowski, J. Zieleniewski, W. Kieżun a system of interpretation of praxeological assessment was expanded. T. Pszczołowski, J. Zieleniewski, W. Gasparski, on the basis of analysis of Polish and English language literature undertook to explain the categories of efficiency, introducing their own interpretations, though. Exemplary differences concerned the introduction by W. Gasparski of a differentiation into *universal efficiency* and *economic efficiency*, therefore the efficiency in a universal context and economy (Gasparski, 1983, p. 70). A notion of *efficiency* was referred to by T. Pszczołowski to efficacy as well as productivity, (Pszczołowski, 1978, pp. 219-220) and by J. Zieleniewski to profitability (Zieleniewski, 1982, p. 231). Authors agreed in referring *effectiveness* to a category of efficiency. However, M. Bielski treats *effectiveness* as efficiency and efficacy, and *efficiency* as productivity and cost-saving (Bielski, 1996, p. 104). A. Szpaderski refers *effectiveness* to efficacy, achieved on account of implementation of the intended goal, not to effectiveness which he explains as an ability to achieve positive results. *Efficiency* is an equivalent of productivity only. In turn, an equivalent of efficacy in synthetic approach is an English-language definition *effectiveness* (Szpaderski, 2006, pp. 3-31). For P. Cabała the effectiveness is a synthetic measurement of action which he ascribes efficacy and effectiveness. Efficacy is combined with an assessment of a manner of actions, and efficacy with an assessment of goal in a context of conditions in which an acting entity acts (Cabała, 2007, pp. 45-46).

In foreign literature the researchers indicate the interpretative differences of efficiency categories. Moreover, the specific praxeological assessments are combined with various economic and managerial problems. It turns out that with time the interpretation of some efficiency categories was changing. For example, in the past a term *efficiency* referred to productivity, costs, and next to *effectiveness* (Show, 2009, pp. 851-868).

As a result of the performed analysis of literature on the pertinent subject in the scope of management, a strict connection of praxeological assessments with a research subject was noticed. Most often the assessment of management and organization is connected with effectiveness, manager's with efficacy, and the technical aspect with efficiency, for example: *management effectiveness*, *organizational effectiveness*, *managerial effectiveness*, *marketing effectiveness*, (Kowal, 2015, p. 85), *technical efficiency*.

In practice, the combination of praxeological assessments with a subject of research impacts a selection of one or more criteria of adequate efficiency assessments. Adequacy of a selection of efficiency assessment measurements depends on: a degree of generality of the assessment, universality of the assessment system construction, uniformity of actions, differentiation of a subject of assessment. Researchers formulate various systems of assessments depending on the variety of a research subject. If uniform actions are assessed, it is easier to define a complete system of efficiency assessment. However, if in a situation of too large differentiation a system of actions assessment must be developed, taking into consideration a higher degree of generality. These assessments are formed in a qualitative or quantitative dimension. A significant characteristic of the efficiency assessment systems is a possibility of their modifications, so therefore they are of open character.

5. Recommendations

Praxeological dimension of the assessment of actions is still a current problem. On account of a variety of actions, e.g. performed in a form of projects (hard, soft), there is a perceptible need to develop a multi-criterion models of efficiency assessments of a holistic character. Supplementation of the current, or a development of new models of assessment of praxeological actions requires uniformization of interpretation of basic efficiency assessments, also in a lexical context in a literature both in Poland and abroad. Initiation of a discussion undertaken for semantic universalization of basic praxeological categories will make it possible in the future to compare the results of conducted research in research teams both at home and abroad, and also it will contribute to expanding knowledge in the scope of introduction of innovative solutions.

6. Conclusion

Summing up, one must state that praxeology makes it possible to assess various actions undertaken in an organization on account of their efficiency. Praxeology is a science finding practical application in many scientific disciplines, i.e. economy, management, engineering of production, sociology. Theory of management describes the formation and functioning of an organization as an effect of human actions. These actions are purposeful, organized, and they are also subjected to utilitarian assessment. Praxeology, forming directives (recommendations and warning) of efficient actions strives to avoid in practice of inefficiency in activity of a doer and restriction of practical errors. Praxeology strives to eliminate practical errors, i.e. excessive routine, dilatoriness, etc. Practical errors committed by a doer keep this entity at a distance from the appointed goal of the activity. It is an error to perform proper things in a wrong manner or performing wrong things in a proper manner. T. Kotarbiński warns against automatism, the lack of skill, dilatoriness. He recommends gaining and solidifying knowledge, improvement and efficient actions. Praxeology is a current and developmental science on account of a variety of undertaken activities by an acting entity.

Bibliography

1. Bednarski, A. (1998). *Zarys teorii organizacji i zarządzania*. Toruń: Towarzystwo Naukowe Organizacji i Kierownictwa „Dom Organizatora”.
2. Bielski, M. (1996). *Organizacja, istota, struktury, procesy*. Łódź: Uniwersytet Łódzki.
3. Cabała, P. (2007). *Wprowadzenie do prakseologii. Przegląd zasad skutecznego działania*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
4. Gasparski, W., & Pszczółowski, T. (1983). *Praxiological Studies. Polish Contribution to the Science of Efficient Action*. Warszawa, Bostob, London: PWN/D. Reidel Publishing Company.
5. Gasparski, W. (1990). Filozofia praktyczna Tadeusza Kotarbińskiego. [in:] W. Gasparski & D. Miller (Eds.), *Projektowanie i systemy: zagadnienia metodologiczne nauk praktycznych*, t. XI. Wrocław: Ossolineum.
6. Kotarbiński, T. (1970). *Sprawność i błąd*. Warszawa: Państwowe Zakłady Wydawnictw Szkolnych.

7. Kotarbiński, T. (1971). Niektóre zagadnienia epistemologii pragmatycznej. [in:] *Problemy efektywności badań naukowych. Materiały sympozjum naukowego 1970*. Warszawa: WAP.
8. Kotarbiński, T. (1973). *Traktat o dobrej robocie*. Wrocław, Warszawa, Kraków, Gdańsk: Zakład Narodowy im. Ossolińskich.
9. Kotarbiński, T. (2003). *Dzieła wszystkie. Prakseologia*, cz. 2. Wrocław: Ossolineum.
10. Kowal, W. (2015). *Sprawność organizacji*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.
11. Pszczołowski, T. (1978). *Mała encyklopedia prakseologii i teorii organizacji*. Wrocław, Warszawa, Kraków, Gdańsk: Zakład Narodowy im. Ossolińskich.
12. Shaw, E.H. (2009). A General Theory of Systems Performance Criteria. *International Journal of General Systems*, 38(8), 851-869.
13. Sokołowski, S.J. (1971). Analiza ogólnego pojęcia nauki i efektywności badań naukowych. [in:] *Problemy efektywności badań naukowych. Materiały sympozjum naukowego 1970*. Warszawa: WAP.
14. Stabryła, A. (1974). *Sprawność kierowania w organizacji złożonej*. Kraków: Wyższa Szkoła Ekonomiczna w Krakowie.
15. Szpaderski, A. (2006). Postulat prakseologii jako teorii podstawowej dla nauk organizacji i zarządzania. Przykład zastosowań. *Organizacja i Kierowanie*, 2(124), 3-31.
16. Tatarkiewicz, W. (1981). *Historia filozofii*, t. 1-3. Warszawa: PWN.
17. Trocki, M., & Juchniewicz, M. (Eds.). (2013). *Ocena projektów – koncepcje i metody*. Warszawa: Oficyna Wydawnicza Szkoła Główna Handlowa w Warszawie.
18. Zieleniewski, J. (1964). *Organizacja zespołów ludzkich*. Warszawa: PWN.
19. Zieleniewski, J. (1981), (1982). *Organizacja i zarządzanie*. Warszawa: PWN.

Chapter 3

Intangible Resources in the Practice of Organisation Management¹

Anna Pietruszka-Ortyl

1. Introduction

The development of knowledge-based economy resulted in intensified search for an answer to the challenges concerning shaping of competitive advantage of organisations functioning under different conditions of the new economy. People started to more and more often and strongly emphasise ideas stating that, in the situation of environment turbulence, the base of strategies of the organisation and sources of its position should be sought not outside, but rather within the company (see: de Wit & Meyer, 2007, p. 144). It became generally believed that, in the unpredictable, dynamic and variable contemporary environment, a more stable basis for the organisation's strategy is its inside, namely its resources (Grant, 1991).

These theses constituted the basis for selecting the resource-based approach in management, and its dynamic growth emphasised the importance of intangible resources of organisations. The essence of contemporary tasks of the management of organisations presently lies in focusing on those resources, which are the main element of co-creation of the organisation's values – usually non-durable goods, available upon request, often beyond the company within a network. In theory, they usually consist of intangible resources, as those that are to define and determine the level of potential to create value and, as a result – the future of competition.

It seems to be cognitively inspiring to verify the resource-based approach in organisation management practice and find an answer to the question of whether management of intangible resources – and which resources in particular – fits in the range of perception of the management of contemporary companies.

Therefore, the purpose of the study is to synthesise the literature achievements with regard to intangible resources and present the condition of intangible resources management in practice.

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2. Outline of the resource-based approach

The resource school is one of the four fundamental approaches to strategies², which has an established theoretical and empirical base. It is based on the assumption that growth depends on adjustment of the company's resources to the market opportunities, and that the company develops its products and services in accordance with its competences. The organisation itself is treated as a reservoir of capabilities and resources, which are to generate economic rent (Gancarczyk, 2015, pp. 13-14).

Table 1. Evolutional and market-based and resource-based approach to strategic management

Specification	Evolutional and market-based approach (market-oriented)	Resource-based approach
Mindset	Company as a portfolio of domains (strategic business units)	Company as a reservoir of capabilities and resources
General formulation of goals	Growth through balanced cash-flow, compared to the life cycle of domains	Long-term growth through development, use and transfer of core competences
Competition direction	Domain versus domain	Company versus company
Competition basis	Cost advantage or product distinction	Use of broadly understood competences of the company
The nature of competitive advantage	Limited by time, subject to erosion, specific for the domain, noticeable	Sustainable, difficult to forge, can be transferred to other domains, hidden
Strategic orientation	Essentially defensive: building and defending present domains; adjusting strategies of competition factors	Essentially offensive: through transfer of competences, further development of old and new markets, influence on competition factors
Planning horizon	Rather short- and medium-term	Focus on long-term
Role of domains	Quasi-company, an "owner" of people and resources (profit centre)	Inventory of resources and capabilities (competence centre)
The task of the top management	Assignment (allocation) of funds to domains	Integration of resources and capabilities on the basis of a specific comprehensive concept (across the entire company)

Source: (Moszkowicz, 2005, p. 63).

The source of competitive advantage thus consists – according to this theory – of tangible resources, intangible resources, competences to use resources to create value, knowledge and learning skills, as well as the ability to intentionally change operational routines (Czakon, 2010, pp. 9-10). The enthusiasts of the resource school thus promote the opinion that the differences between companies in the achieved results result from them having unique resources that determine their competitive position, available strategies and markets, and the underlying assumption of this opinion is the thesis about diversity of companies (Penrose, 1959; Peteraf, 1993).

² Next to the planning, evolutional and position-based school, see: (Obłój, 2001, pp. 29-30).

Regarding contribution of the resource-based approach to the development of strategic management schools in synthetic terms, they can be compared with the existing achievements in terms of the criterion of general formulation of goals, focus and competition basis, the nature of competitive advantage, strategic orientation, planning horizon, the roles of domains and tasks of the top management (Tab. 1).

It is worth emphasising that the resource-based approach contributed to development of subsequent contemporary schools, trends and concepts – the real options school (Obłój, 2007), the core competences concept, the distinctive strategic capabilities theory, the dynamic capabilities trend, the theory of a knowledge-based organisation, the concept of organisational learning, the concept of new forms based on technology (Krupski, 2012, p. 4; Zakrzewska-Bielawska, 2013, p. 4).

3. Intangible resources as a source of competitive advantage

The subject literature indicates that a resource is a component of production activity that is useful to a person (*Mala...*, 1978, p. 293), it constitutes each element used by the organisation in its operations. Therefore, according to the generally recognised opinion, resources include everything that remains at the disposal of a company and may affect its functioning (Stankiewicz, 2002, p. 103), or everything that the organisation owns or knows, which allows it to develop and implement a strategy improving its business performance (Rokita, 2005, p. 139).

Thus, resources are all tangible and intangible elements necessary for the organisation to pursue its objectives in an effective manner. Therefore, company resources are all assets that companies use in their processes and activities, and refer to a set of available factors – visible and invisible – owned and controlled by the company. In consequence, they can be tangible (financial, fixed and human assets) or intangible (knowledge, organisational culture, reputation, brand, relations with the environment, intellectual property rights). Basically, they are thus recognised as assets (tangible and intangible), as well as organisational capabilities determining what, in the strategic sense, the company is able to do (Brilman, 2002, p. 143).

J. Barney (1991, pp. 99-120), as a classic representative of the resource school in management, characterises resources as assets, capabilities, organisational processes, knowledge, information and other attributes that allow the company to build its strategy and improve effectiveness. The precursor assumes that resources, in order to constitute an actual basis for an effective strategy and truly contribute to building sustainable competitive advantage of a given organisation, should have specific characteristics – strategic valence (allowing the organisation to grab opportunities and defy threats), rare occurrence (for current or potential competitors), as well as should be difficult to imitate and have no substitutes.

At present, under the conditions of knowledge-based economy, these particular characteristics are usually attributed to intangible resources, and they are particularly seen as the future of building competitive advantage of the organisation. These activities are even included in the concept of resource-based competitiveness (see: Leśniewski, 2014, pp. 57-68).

Apart from the characteristics identified by J. Barney, intangible resources are also characterised by the following criteria (Becker, Huselid & Ulrich, 2002, p. 21; Teece, 2000, pp. 15-16; Pietruszka-Ortyl & Mikula, 2010, pp. 31-46):

- reporting through accounting systems – usually immeasurable, mostly not reported in standard accounting systems, return on investment therein difficult to be explicitly calculated, it is often only an approximate amount;
- availability – multi-applicable and simultaneous, since they have various applications that do not reduce their value, and they can be used in several places and by many people at the same time;
- depreciation scope – most strongly subject to the effect of synergistic cooperation, gain value dynamically, if they are adequately used, and lose value drastically upon losing one of the basic attributes of J. Barney;
- ease of multiplication and gathering – in most cases, they cannot be bought or copied in full, but they tend to disappear, if they are not being used;
- costs of transfer – difficult to determine, they usually grow along with increasing presence of silent knowledge therein;
- scope of legal protection – limited by difficulties in enforcement of ownership rights thereto.

Currently, the systemic approach to resources is in force, according to which the company is treated as a structure built of interdependent parts constituting an internally consistent and dynamic whole, interdependent upon the connections and cooperation between its elements (Skowronek-Mielczarek, 2012, p. 128). Thus, it also implies focus on classification of the resources themselves³.

For instance, a multifaceted classification of organisation's resources is presented by R. Maier (2002, pp. 92-95). He draws from the classic division into tangible and intangible resources, and breaks intangible resources into those dependent upon the human factor and those independent from this factor (see: Pietruszka-Ortyl, 2008, pp. 53-70).

The group of resources independent from humans include:

- intangible assets in the form of legally protected internal conditions of the company (e.g. patents, intellectual property), variables relating to external relationships of the organisation (e.g. networks, relations with clients) or indicators describing the way the company is perceived by the environment (e.g. reputation);
- organisational assets describing the organisational culture (e.g. desire to share knowledge, perception of quality and shaping relations with customers) and reflecting the principles of operation of the company (e.g. learning cycles, management systems).

On the other hand, resources dependent upon humans include open and hidden knowledge, and Maier additionally indicates the impact of specific groups of resources on the competitive position of the organisation. For this purpose, he characterises 5 dimensions of competitive advantage:

- functional advantage resulting from knowledge, skills and experience of employees and other people contributing to creation of the value chain (e.g. suppliers, distributors, lawyers, etc.),
- cultural advantage referring to organisational culture of the company and reflecting the principles prevailing in the company,

³ The subject literature is abundant in proposals of classification of organisation's resources in the perspective of the resource-based approach; for instance, original concepts of division of organisation's resources (including intangible resources) are presented by: R. Hall (1992, pp. 608-610; 1993, pp. 136-139), T.A. Stewart (2001, p. X), M. Bratnicki (2000, pp. 50-52), B. Lev (2003, pp. 299-300), B. de Wit & R. Meyer (2007, p. 163), B. Lowendahl (Dudycz, 2005, p. 221), J. Kozłowski (2002, p. 32), W. Hopfenbeck, M. Müller & T. Peisl (2001, p. 347), A. Skowronek-Mielczarek (2012, pp. 130-131).

- management quality advantage resulting from the innovative capacity of the organisation and the ability to quickly and effectively adapt to the environment's conditions,
- position advantage resulting from past market behaviours building reputation and contacts with stakeholders,
- legal advantage reflecting the company's legally protected intellectual property resources.

4. Methodological assumptions of intangible resources management

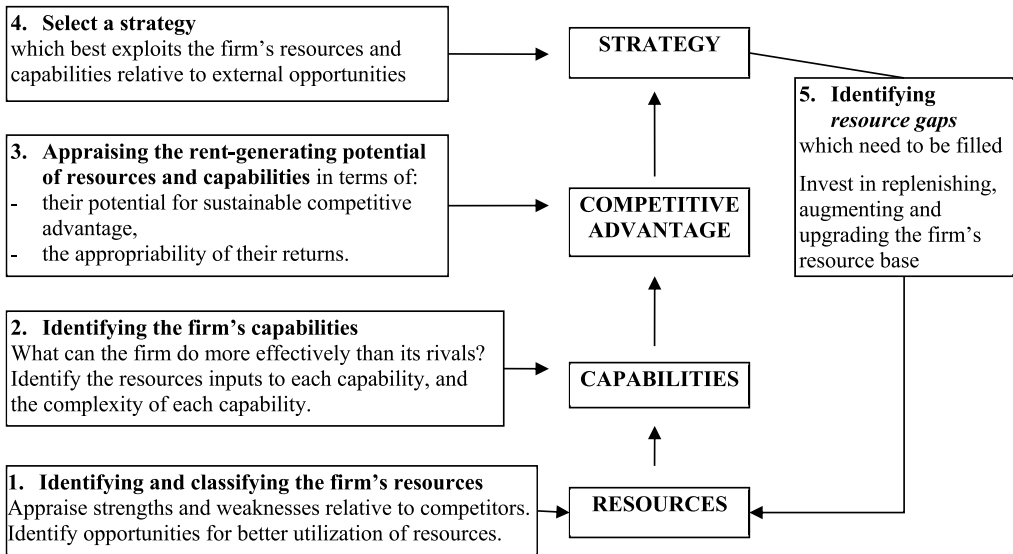
The most common model of the identification process of the company's strategy, strictly ingrained in the resource-based concept, is the model suggested by R. Grant (2001, p. 115). He differentiated five stages relating to resources (Fig. 1). In the fourth stage, concerning selection of a strategy, resources are confronted with the environment. This results in identification of shortages of some resources (resource gap) and excesses of others (basis for the diversification strategy). Identification of the resource gap determines the focus on their acquisition inside the organization or from its environment and the way this gap is filled. This way, the level and structure of the necessary resources is designated.

Management of intangible resources should thus take place both at the strategic level and at the operational level. In the strategic scope – since it is based on implementation of strategic objectives aiming at increasing the company's value – it should focus on improvement in quality of particular intangible resources and increase in the synergy effect. Their control becomes the tool to achieve that. On the operational level, it should focus on control of development of particular categories of intangible resources, so that they would facilitate or improve the course of internal processes (knowledge and culture), strengthen the company's relations with partners (reputation, brand) and – after combining with tangible resources – affect quality of products or services (Głuszek, 2004, pp. 276-277). Additionally, the challenges in certain areas of operation, agreed under the strategic scope, should be converted in the operational dimension into specific tasks for organisational departments, teams, and even particular positions.

To sum up, methodological assumptions of intangible resources management can be formulated in the form of the following statements (Ziółkowska, 2012, p. 157):

- The interdisciplinary nature indicates that intangible resources should depend on four management concepts: change management, value management, strategic management, knowledge management.
- The holistic approach, which comprehensively covers resources, processes and actions, in mutual interdependence and wide perspective.
- Attitude towards the future (creation of value “now” will result in increase in value “later”).
- Change in perception of time (abandoning forecasting of results and prediction of future trends in favour of identification of problems and conditions in the environment).
- Pragmatism (management of intangible resources should be focused on their usability, effectiveness and delivering value added).
- The continuity of the management process enables creation of sustainable value in the long run (by ensuring continuous development and growth of the company, creation of sustainable value for the owners, permanent innovation, verification of the strategy and its assumptions, monitoring of the environment and value generators).

Figure 1. A Resource-Based Approach to Strategy Analysis



Source: (Grant, 2001, p. 115).

5. Condition of intangible resources management in organisation management practice

Many opponents of the resource school demand confirmation of its assumptions in organisation management practice. For this reason, some scientists undertook the challenge of verifying the usability of intangible resources and the resource-based approach in empirical research. In the Polish literature on the subject, a pioneer discussion on the completed studies in organisation management practice was presented by R. Krupski (2011, p. 196; 2014, pp. 87-96). Elements of the resource-based concept were also tackled in empirical research by A. Skowronek-Mielczarek (2012, pp. 127-142), E. Urbanowska-Sojkin (2013, pp. 389-402), A. Zakrzewska-Bielawska (2013, pp. 3-8), and M. Kuzel (2016, pp. 44-53).

The discourse conducted in the subject literature was an inspiration to carry out pilot studies concerning the level of focus on resources in companies, as well as the scope of usability of intangible resources in the organisation management practice.

146 organisations were examined in spring of 2017. In most cases, respondents consisted of employees at the operational and tactical level of the examined companies. Managers at the strategic level constituted 15% of all respondents; it may therefore be assumed that the obtained results constitute only a bottom-up perspective of the employees.

The respondents themselves are employees with moderate professional experience, in average amounting to 4 years, and with the length of service in the organisation characterised through the empirical studies – ca. 2 years. The analysed organisations represented a diverse business profile and their average time of operation was 14 years.

In general, organisations with service-oriented business profile (along with public services) constitute 62% of all surveyed companies, and thus the survey sample confirms the thesis concerning the characteristics of knowledge-based economy, where the services sector assumes the dominant role over production sectors.

The analysed companies were equally varied in terms of size: 13% of the survey sample was represented by microenterprises, 32% by small enterprises, 28% by medium-sized, and 27% by large organisations.

In the search for a clear albeit multi-layered answer to the question concerning strategic orientation represented by organisations in Poland, the basis were the criteria differentiating the resource-based approach and the evolutionary and market-based approach proposed by M. Mośkiewicz.

Considering the average number of times particular criteria were chosen, 63% of the surveyed pointed out resource orientation as defining the activities of companies they work for, while 37% – the evolutionary and market-based approach.

Within particular factors differentiating both approaches, the focus on resources was clearly indicated by the choice of criteria regarding general formulation of objectives (74%), orientation of competition (75%), as well as the mindset (68%).

The basis of the resource-based approach in the conducted empirical research included treating the examined company as a reservoir of capabilities and resources, and assuming the basis for its strategy to be long-term growth through development, use and transfer of core competences with a simultaneous holistic vision of the organisation translating into transfer of competition from the level of a strategic business unit to the inter-organisational level.

In consequence, the preferred (65% of responses) strategic orientation is the offensive approach, consisting in transfer of competences and further development of old and new markets, and intensive shaping of competitiveness factors. Therefore, the respondents usually identified as tasks of the top management: integration of resources and capabilities on the basis of a specific comprehensive concept formulated in the perspective of the entire organisation (60% of responses), while determining a long-term planning horizon (58%).

The only detailed criterion describing the evolutionary and market-based approach chosen more frequently in the conducted empirical analyses was the competition basis. 52% of respondents indicated cost advantage or product distinction; thus, most managers of the verified organisations are still mentally stuck in the era of adapting to the customer's requirements, where the main philosophy was based on the fundamental idea of "whoever is more efficient and more competitive wins", and the main problem consisted of the challenge to provide a cheap product and expand the market.

Another research task set out in the conducted empirical analyses was to find an answer to the question concerning the scale and form of the policy of intangible resources management implemented in the companies.

The respondents confirmed that, in their opinion, the company's market value is more and more determined by intangible resources (57% of positive answers), and thus it is important for effective management of the organisation to identify the base of intangible resources that the company has at its disposal (58% of responses).

The surveyed employees do not have clear information on whether their companies, as part of the intangible resources management policy, utilise identification of intangible resources of the organisation: 52% of the respondents cannot confirm nor deny, and only 34% of all surveyed

employees confirm that their companies identify intangible resources. The results suggest lack of transparent communication with regard to implementation of the intangible resources management policy, though its existence is determined by other answers.

For the questions relating to identification of specific resources conducted in the analysed companies, the respondents indicated particular intangible resources. These resources usually include:

- individual competences (68%),
- organisational competences (64%),
- reputation of the company (36%),
- contacts with strategic partners (30%).

From the point of view of the sources of competitive advantage, intangible resources (58%) slightly overshadow tangible resources (52% of answers) in the examined organisations.

6. Conclusion

The presented characteristics of intangible resources indicate that formulation of a universal method of their management is not a simple task. However, the terminology proposed for intangible resources allows for solving a number of problems appearing in practice. Firstly, the intangible resources management process should aim to access such a quantity and quality of resources, so as to be able to transform them into intellectual capital when a development opportunity arises, which would allow the company to fully capitalise on this opportunity. Secondly, the assumed management strategies should allow the largest possible part of intangible resources to be used as intellectual capital. Failure to utilise the intangible resources being at the disposal of the organisation is a waste of the development opportunities, unless a given resource is treated as a reserve in case of any hazards. Thirdly, both intangible resources and intellectual capital should be identified and examined. Information about the scope of the owned intangible resources, their allocation and their level of use is the basis for making correct decisions.

The analysis of the conducted empirical research proves the widespread presence of the resource-based approach in organisation management practice and the growing awareness of the need to focus on management of intangible resources. Currently, the sources of competitive advantage are seen in those resources, mostly in competences, attitudes and behaviours of employees. They in turn determine whether the functional and cultural advantage, and the management quality, identified by R. Maier, are obtained and maintained.

The examined organisations prove the existence of signs of implementation of a strategic level of the intangible resources management, aiming to report them, generate the synergy effect on their basis, and convert them into the greatest possible intellectual capital. Implementation of the intangible resources management policy at the operational level also found its practical confirmation in the identification of activities focused on development of specific intangible resources in the form of competences and contacts with strategic partners.

Bibliography

1. Barney, J.B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
2. Becker, B.E., Huselid, M.A., & Ulrich, D. (2002). *Karta wyników zarządzania zasobami ludzkimi*. Kraków: Oficyna Ekonomiczna.
3. Bratnicki, M. (2000). *Podstawy współczesnego myślenia o zarządzaniu*. Dąbrowa Górnicza: Wydawnictwo „Triada”.
4. Brilman, J. (2002). *Nowoczesne koncepcje i metody zarządzania*. Warszawa: PWE.
5. Czakon, W. (2010). Zasobowa teoria firmy w krzywym zwierciadle. *Przegląd Organizacji*, 4, 8-12.
6. de Wit, B., & Meyer, R. (2007). *Synteza strategii. Tworzenie przewagi konkurencyjnej przez analizowanie paradoksów*. Warszawa: PWE.
7. Dudycz, T. (2005). *Zarządzanie wartościami przedsiębiorstwa*. Warszawa: PWE.
8. Gancarczyk, M. (2015). Proces wzrostu przedsiębiorstwa w świetle podejścia zasobowego i teorii kosztów transakcyjnych. *Gospodarka Narodowa*, 5(279), 5-31.
9. Głuszec, E. (2004). *Zarządzanie zasobami niematerialnymi*. Wrocław: Wydawnictwo Akademii Ekonomicznej im. Oskara Lanego we Wrocławiu.
10. Godziszewski, B. (2001). *Zasobowe uwarunkowania strategii przedsiębiorstwa*. Toruń: Wydawnictwo Uniwersytetu Mikołaja Kopernika.
11. Grant, R.M. (1991). The Resource-based Theory of Competitive Advantage: Implication for Strategy Formulation. *California Management Review*, 33(3), 114-135.
12. Hall, R. (1992). The Strategic Analysis Of Intangible Resources. *Strategic Management Journal*, 13(2), 135-144.
13. Hall, R. (1993). A Framework Linking Intangible Resources And Capabilities To Sustainable Competitive Advantage. *Strategic Management Journal*, 14(8), 607-618.
14. Hopfenbeck, W., Müller, M., & Peisl, T. (2001). *Wissensbasiertes Management. Ansätze und Strategien Unternehmensführung in der Internet-Ökonomie*. Verlag Moderne Industrie, Landsberg/Lech.
15. Kozłowski, J. (2002). Intellectual Capital, Knowledge Management and Intelligent Products in the Light of Catalogue and Abstract Data Basis. [in:] S. Kwiatkowski & C. Stowe (Eds.), *Knowledge Café for Intellectual Products and Intellectual Capital*. Warszawa: Leon Koźmiński Academy of Entrepreneurship and Management.
16. Krupski, R. (2011). *Orientacja zasobowa w badaniach empirycznych. Identyfikacja horyzontu planowania rynkowych i zasobowych wielkości strategicznych*. Wałbrzych: Wałbrzyska Wyższa Szkoła Zarządzania i Przedsiębiorczości.
17. Krupski, R. (2012). Rozwój szkoły zasobów zarządzania strategicznego. *Przegląd Organizacji*, (4), 3-7.
18. Krupski, R. (2014). Zasoby niematerialne jako główny składnik strategii przedsiębiorstwa działającego w turbulentnym, nieprzewidywalnym otoczeniu. *Organizacja i Kierowanie*, (1A), 87-97.
19. Kuzel, M. (2016). Konfiguracja zasobów w ramach ponadnarodowych struktur polskich przedsiębiorstw – inwestorów zagranicznych jako czynnik ich międzynarodowej konkurencyjności. *Przegląd Organizacji*, (2), 44-53.

20. Leśniewski, M.A. (2014). Konkurencyjność zasobowa przedsiębiorstw. *Ekonomika i Organizacja Przedsiębiorstwa*, 4, 57-68.
21. Lev, B. (2003). *Intangible Assets Concepts and Measurements*. New York: New York University Press.
22. Maier, R. (2002). *Knowledge Management Systems. Information and Communication Technologies for Knowledge Management*. Berlin – Heidelberg: Springer-Verlag.
23. *Mała encyklopedia prakseologii i teorii organizacji*. (1978). Warszawa: PWE.
24. Moszkowicz, M. (2005). Zarządzanie strategiczne jako koncepcja zarządzania. [in:] M. Moszkowicz (Ed.), *Zarządzanie strategiczne. Systemowa koncepcja biznesu*. Warszawa: PWE.
25. Oblój, K. (2001). *Strategia organizacji*. Warszawa: PWE.
26. Oblój, K. (2007). *Strategia organizacji*. Warszawa: PWE.
27. Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. New York: Wiley.
28. Peteraf, M.A. (1993). The Cornerstones of Competitive Advantage: A Resource-based View. *Strategic Management Journal*, 14(3), 179-191.
29. Pietruszka-Ortyl, A. (2008). Specyfika niematerialnych zasobów organizacji. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie. Prace z zakresu zachowań organizacyjnych*, (765), 53-70.
30. Pietruszka-Ortyl, A., & Mikula, B. (2010). Studium niematerialnych zasobów organizacji. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie. Prace z zakresu zachowań organizacyjnych*, (820), 31-46.
31. Rokita, J. (2005). *Zarządzanie strategiczne. Tworzenie i utrzymywanie przewagi konkurencyjnej*. Warszawa: PWE.
32. Skowronek-Mielczarek, A. (2012). Zasoby w rozwoju przedsiębiorstwa. *Studia i Prace Kolegium Zarządzania i Finansów*, 121, 127-143.
33. Stankiewicz, M.J. (2002). *Konkurencyjność przedsiębiorstwa. Budowanie konkurencyjności przedsiębiorstwa w warunkach globalizacji*. Toruń: Towarzystwo Naukowe Organizacji i Kierownictwa – Stowarzyszenie Wyższej Użyteczności „DOM ORGANIZATORA”.
34. Stewart, T.A. (2001). *The Wealth of Knowledge. Intellectual Capital and the Twenty-first Century Organization*. London: Nicholas Brealey Publishing.
35. Teece, D.J. (2000). *Managing Intellectual Capital. Organizational, Strategic, and Policy Dimensions*. New York: Oxford University Press.
36. Urbanowska-Sojkin, E. (2013). Zasobowy kontekst sukcesu przedsiębiorstwa. *Zarządzanie i Finanse*, 11(4), 389-402.
37. Zakrzewska-Bielawska, A. (2013). Zasobowe uwarunkowania kooperacji w przedsiębiorstwach high-tech. *Przegląd Organizacji*, 2, 3-8.
38. Ziółkowska, B. (2012). Podejście zasobowe w strategicznym zarządzaniu wartością przedsiębiorstwa. *Zeszyty Naukowe Politechniki Częstochowskiej. Zarządzanie* (6), 151-159.

Chapter 4

The Influence of Cultural Assumptions on the Strategy of the Company¹

Halina Smutek

1. Introduction

Organizational research increasingly incorporates cultural elements (symbols, language, ideologies, ceremonies, and myths), employed for the purpose of maintaining order and harmony within organizations. Lack of cultural adaptation can result in poor management efficiency, poorly functioning task teams, poor bureaucratic configuration strategy – structure, a reward systems ignoring efficiency, and, consequently, may be an important barrier to organizational success. Culture provides meaning to the behaviors of the organization and its participants, constitutes a set of values that help justify why certain behaviors are desirable and others not.

According to R. Harrison, the nature of the company depends on its cultural orientation (Harrison, 1972). A value system commonly accepted by the employees determines the convergence of the company's interests with the interests of its employees and forges the ability of the enterprise to cope with the environment, while the lack of understanding of differences in value system creates ample room for conflicts between businesses and within them. Strong culture, according to Cz. Sikorski, can stimulate increase in efficiency and competitiveness of the organization, provided that it constitutes a pool of knowledge and skills within the organization that is adequate for its purposes and operating conditions (Sikorski, 2008, p. 40).

2. Culture as a manifestation of organizational identity

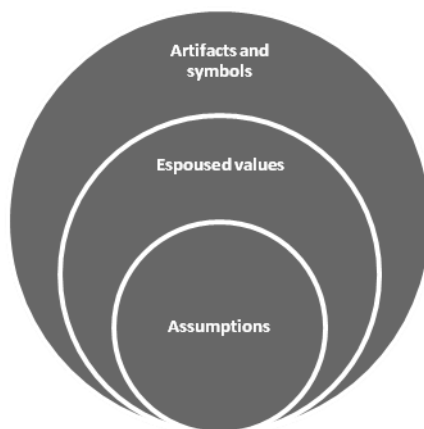
The concept of culture has a very broad, it is safe to say, interdisciplinary dimension. It is not merely a collectively programmed mind, as G. Hofstede claims, but can be regarded as a crucial factor determining its future. K.S. Cameron and R.E. Quinn define culture as a set of values that are considered obvious, universally accepted assumptions, common expectations, definitions, and

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elements of collective memory (Cameron & Quinn, 2003, p. 15). In 1980 E.H. Schein proposed one of the most popular definitions of culture, according to which it is a set of dominant values and norms characteristic of an organization, founded on the assumptions about the nature of reality and manifested through artifacts – external, artificial creations of a given culture (Mulder, 2013; Schein, 1984, pp. 3-16; Schein, 1999). It includes the mission, guidelines concerning operating principles, company identity, rituals and projects.

E.H. Schein divided organizational culture into three different levels. The model of organizational culture presented in Figure 1 is known as the onion diagram (a similar approach was suggested by G. Hofstede), as organizational culture consists of layers that differ in the degree of difficulty involved in interpretation and adaptability.

Figure 1. Culture Model



Source: (Schein, 1984).

The outer layer is quite easy to adapt and easy to change. The deeper the layers are, the harder they are to change. Embedded in the core of the onion are the basic assumptions that determine the answer to the question “how does the world function?”, shared by the participants of the organization, resulting from experience and perception of reality. According to E. Schein, cultural assumptions are often the result of the subconscious choice of answers to fundamental questions about the identity of an organization, related to the adoption of a particular paradigm of culture. They constitute a set of normative assumptions about: the perception of the environment, categories of absolute and relative truth, human nature, distinction between the ethical and unethical readiness to accept uncertainty and risk (Sikorski, 1999, p. 238).

The assumptions constituting the core of culture determine values – socially recognized standards of conduct which for the members of the organization constitute a kind of ethical and moral code (Aniszewska & Gielnicka, 1999, p. 31), determining:

- goals and values of the organization,
- character of relationships with employees,
- characteristics and behaviors expected of employees,
- nature of relations with the environment.

According to E. Schein, most of the values accepted in the organization are laid down by the founders and the management. Analyzing the organizational culture of successful companies, it is easy to identify relatively stable values that characterize them: the perception of employees as the most valuable asset of the organization, focus on customers, quality, adaptability, social responsibility. They may not necessary be 'values' in the strict meaning of the term, but they point to the values that the organization wants to cherish, indicating the limits of freedom of action. The norms of organizational culture have the character of moral norms, indicating what is considered good and bad in a given community, ethical and unethical and, from the praxeological point of view, indicate the accepted criteria of assessment the efficiency of actions (Sikorski, 1999, p. 240). The result of the functioning of norms and values are the attitudes of man towards specific problems and situations.

Artifacts constitute the outer layer of culture – visible elements of the organization, such as the logo, architecture, structure, processes. Among them are:

- linguistic artifacts. Including key words used by participants in a culture, which are phrases contained in the company's characteristic dictionary;
- behavioral artefacts – ceremonies, rituals, customs – these are artificially created behavioral patterns, which are different in different parts of the world;
- physical artefacts are the so-called "material objects" that are tangible, such as art, architecture, technology, etc., which are visible and recognizable not only to the members of the organization but also people outside, constituting the answer to the question of "who are we as an organization?" (Albert & Whetten, 1985, p. 263).

The concept of organizational identity was first defined by Albert and Whetten in 1985 and updated by Whetten in 2006. According to Whetten, the attributes of organizational identity are central (those that have changed the company's history), persistent, deeply rooted in the organization, often considered sacred or embedded in the organization's history and distinctive that the organization uses to highlight its distinctiveness and uniqueness against other similar organizations (Hatch & Schultz, 1997). Identity therefore includes the main and distinctive attributes of the organization – the organization's core values, resulting from organizational culture, manufacturing methods, and products. The Strategor Group emphasizes that the concept of "identity" is the raw material of cultural phenomena, including the ideological and psychological dimension of the enterprise (Strategor, 1996, p. 594). According to K. Konecki, identity can be the quintessence of organizational culture and its essence lies in the notions and images of the organization harboured by its employees and conscious and subconscious rules of its functioning (Konecki, 2002, p. 84).

3. Functions of organizational culture

T. Peters and R. Waterman, seeking the so-called "excellence" highlighted the importance of the organization's culture, which makes us look at the organization as a social system with shared knowledge and experience, as well as a value system. E. Schein emphasized that one of the management functions is to skilfully use organizational culture, attending at the same time to its functions: integrational, perceptual and adaptive (Dolhasz et al., 2009).

The integrative function of culture is to maintain organizational unity by creating an atmosphere of cooperation and acceptance of common goals. This aspect of culture was emphasized

by G. Hofstede, who defined culture as collective programming of the mind, which distinguishes members of one organization from others (Hofstede, 2000, p. 40), stressing at the same time the fact that corporate cultures are created by common working group experiences and are a synthesis of common patterns of thinking, common language, beliefs, feelings, values, principles, rules, ideology, experience, learning, hierarchy within a group, participation in the process of being together, forging thus a sense of security and stability. The organization's culture, based on its long history and tradition, gives its employees a strong sense of security. It helps to build an identity of the organization, which is manifested by the distinct nature of the organization, the philosophy of action, its history. It is built on a set of different personalities, human characters and abilities that form a group identity.

The perceptive function determines the way the environment in which the organization functions is perceived and provides knowledge and information about the world. Thanks to the fact that people work together, they can exchange information, gain new knowledge, and learn a culture, giving it a social character. In this perspective, culture acts as a social message, allows for interpretation of events, explains the meaning of phenomena and processes. Through staying together, people gain knowledge about what is good and what is bad, what the organization expects of them.

Adaptive function involves the ability to develop ready-made patterns of behavior and action in specific situations by perceiving organizational reality and environment as relatively stable. By providing learned patterns of dealing with life, it develops ready-made action plans. Organizational culture reduces the area of uncertainty in the organization, enabling one to plan, predict and design one's own life, with the following consequences:

- stimulation to action,
- increasing a sense of security in people in the organization, which increases the level of motivation,
- adaptation to the conditions under which the concept of organizational management is implemented (at the strategic and operational level),
- risk acceptance,
- shortening of decision-making time,
- ability to adapt to changes in both the external and internal environment of the organization, which is now a very valuable skill.

Adaptive function becomes particularly important when the organization interacts with other entities, cooperating with them to create positive co-operation, or develop methods to combat competition. The external environment not only influences the perception of the company, assesses its effectiveness, but also imposes changes in strategies and structures. The spatio-temporal conditions in which the organization operates smuggle the values and patterns of external origin onto its territory. In turn, the patterns of corporate culture that are created within the organization sneak out of its borders and change or modify the environment.

Many researchers of organizational culture point to both positive and negative consequences of strong cultures that shape organizational identity, while emphasizing the fact that a strong culture can lead to perpetuating patterns of strategic behavior that do not necessarily have to be tested in the long run. Organizational culture in the organization functioning in a stable environment affects its operation in a different way than that of organizational culture in a company functioning in a fluctuating environment. In a stable environment the typical phenomenon is the repetition of routine activities. Stereotypes persist, which later hamper necessary changes.

In a changing environment, organizational culture helps to interpret phenomena and work out patterns of behavior. Knowledge of elements of organizational culture, awareness of its influence on the organizations determines the effectiveness of strategic actions. According to M. Kostera, the answers to management questions are culturally conditioned (Kostera & Śliwa, 2012, p. 122). The way the goals are defined at each level of the organization is determined by a set of cultural assumptions. Also the extent to which their implementation is possible depends on the degree of compliance with the framework set by the organizational culture.

4. Cultural assumptions and strategy

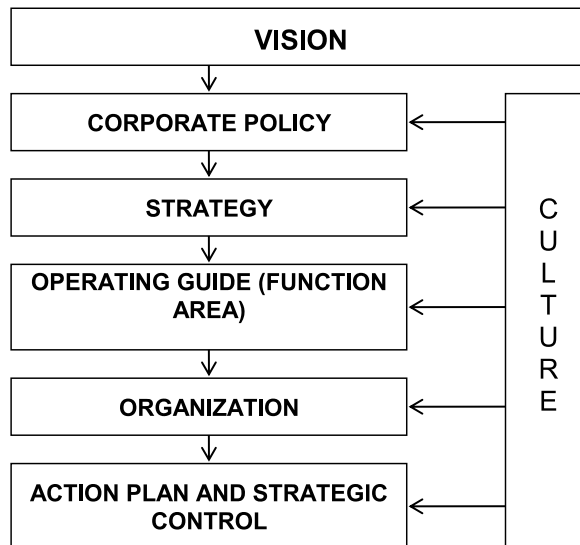
Common values shared by the employees make enhance understanding of how the organization works. A proper selection of these values integrates the employees of the organization, improves internal communication, and encourages compliance with a set of, not infrequently unwritten, rules. G.R. Sullivan and M.V. Harper (1997) point out that companies with a highly developed sense of organizational values enjoy the greatest and most persistent success.

The views accepted and respected by the people who define what is most expected in society are at the basis of some universal values. They are a kind of “binder” making the members of an organization into a group acting as a whole. The absence of a common sets of beliefs and values about the objectives pursued, and generally accepted methods of their implementation will lead to a situation in which companies would not be able to function on the market. Values are the foundation of our work, our actions, or our interaction with others, influencing the choice of strategy through which the mission is accomplished (Sullivan & Harper, 1997, p. 64).

The recognition of shared organizational values is one of the determinants of success. Common values shared by employees enhance their understanding of how the organization works and constitute an integrating element, improving internal communication, and encourage adherence to rules, not necessarily written. Which influences the company’s ability to implement strategic targets, while adopting a strategy that is not in line with the cultural assumptions condemns the company to failure.

The role of organizational culture in the direction of strategic direction was emphasized by H.I. Ansoff, who, defines a strategic culture as a set of norms and values that determine the preferences of a given social group for a particular type of strategic action (Ansoff, 1985). Hinterhuber also points out to the importance of the cultural context in formulating strategic policy in the strategic management model which he developed. The model of strategy formulation presented by H. Hinterhuber asserts that the starting point of the strategic management process is to create a vision of an organization that can be translated into company policies and strategies. He emphasizes the importance of the mission in seeking answers to fundamental, existential questions: What purpose is the company serving? Why does it exist? What is its role in the world? While the vision is an image of the potential of the company in the future, the mission is the meaning of its existence. It is a system of values shared by the employees and management alike that determines the directions of its economic, social and competitive purposes and shapes its philosophy of action, including elements such as structure, procedures, styles, and managing techniques. It is a broad but definite statement of objectives that differentiate a given organization from the rest and defines the scope of concentration on the product (s) and market realities (Pearce, 1982).

Figure 2. Process of strategy formulation



Source: (Hinterhuber, 1989, p. 11).

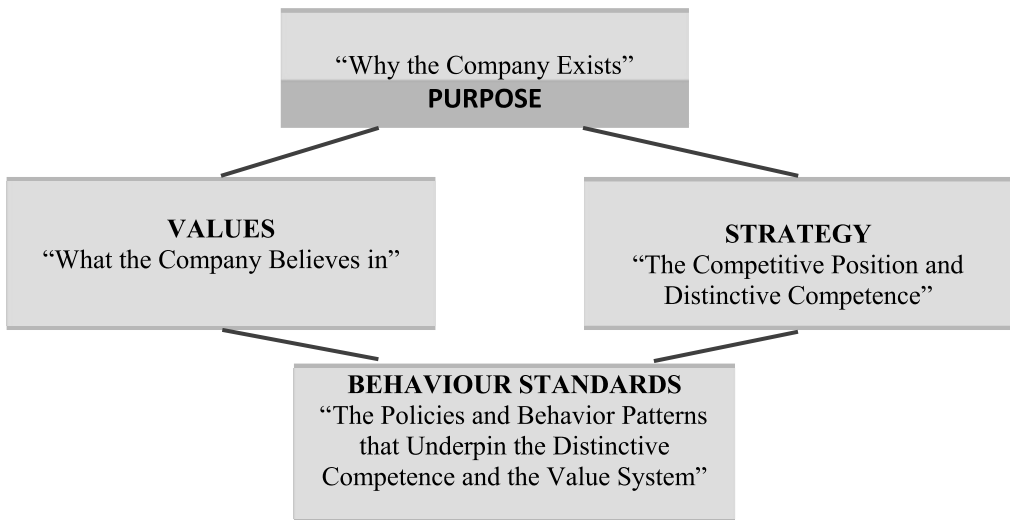
A sense of mission is important if employees are to believe in their business. Both managers and employees seek justification of their actions and a sense of identity. They want more than just fair pay, security and opportunities to develop their skills. That need is met by a sense of mission, which fulfills several functions:

1. Inspires and motivates managers and employees to perform.
2. Ensures consistent resource allocation.
3. Allows for balancing competing and often contradictory goals of organizational agents.
4. Identifies common values that ensure a sense of organizational identity.
5. Allows the organization to tackle emergencies.
6. Defines the strategy of the organization.

The notion of a mission covers all the aspects of the company's operations. This principle is best illustrated by A. Campbell's model of the mission, which includes elements such as:

- purpose – why does the company exist?
- values – what does the company believe in and what values and norms are regarded as basic?
- strategy – the competitive position of the company and its distinctive competence,
- behavior standards – the company policies and behavior patterns that underpin its distinctive competence and system of values.

Figure 3. A. Campbell's mission model



Source: (Campbell, Devine & Young, 1992).

According to A. Campbell, the mission statement does not in itself stimulate the organization to function more efficiently, in many cases the declared values do not translate into real actions and instead of motivating the employees have the opposite effect. Ashridge A. Campbell's mission model is a method that combines two characteristic approaches:

1. Strategic Paradigm – the mission is seen primarily as the first step in the process of formulating the strategy, it defines the commercial purpose of the business and the target market.
2. Cultural (ethical, philosophical) Paradigm – the mission is primarily seen as a declaration of values that should ensure good cooperation among the employees and is as such kind of cultural glue.

Elements of the Ashridge model should be closely intertwined and reinforce one another to create a coherent mission, whose elements are:

1. Objective, taking into account the perspectives of the owners, stakeholders and at the same time going beyond mere satisfaction of their needs.
2. Strategy, the logic of the company's market activities, taking into account the rational behavior for which the logical left brain hemisphere (if we compare the organization to the organization to the brain).
3. Values, related to moral and ethical principles, giving meaning to what is outside the corporate culture. They can be an effective motivational tool by referring to what is important for a given group. Although they are related to the emotional and ethical sphere (the creative right hemisphere of the brain), they can ensure rational behavior that is as strong as the strategy.
4. Behavioral principles and standards, including policies and behavioral standards that support a company's specific competencies and system of values.

The model is based on the results of a research conducted in 53 large companies by The Ashridge Strategic Management Center. Its founder, Andrew Campbell, spent many years of his career on studies on the point and meaning of the mission.

The value of the mission depends on how well it inspires the collective efforts of the organizational actors, and to what extent it reflects the company's responsibility to the stakeholders. It is important to define the business domain precisely, taking into account the positioning of the company, indicating the direction of its strategic activities. The values flowing from the organization's mission should translate into competitive, social and economic goals, reinforcing the strategy. The scope of strategic freedom is determined by behavioral standards, which delimit strategy and values. Therefore, they should be clearly worded, visible in the management activities and accepted by employees.

5. Conclusion

Organizational culture illuminates a characteristic image of a given organization, creates a favorable opinion, provides consistency protecting against uncertainty, leads to the choice of priorities, but also provides a barrier to change. Cultural ambitions of the organization are externalized in the form of a dominant position in the market, sustainable technological advancement, innovation in social solutions, or a prestigious image.

Contemporary organization, which must face disturbances in the environment, is threatened by the inability to meet this challenge, if its identity is overused and its overloaded culture is essentially without value, it must open up to the possibility of autonomous cultural enclaves functioning within it and give freedom to its creativity. Organizational culture is a powerful unifying tool, provided that it is accepted by its members.

Bibliography

1. Aniszewska, G., & Gielnicka, I. (1999). *Firma to ja, firma to my: poradnik kultury organizacyjnej firmy*. Gdańsk: Ośrodek Doradztwa i Doskonalenia Kadr.
2. Ansoff, I. (1987). *Zarządzanie strategiczne*. Warszawa: PWE.
3. Albert, S., & Whetten, D.A. (1985). Organizational Identity. *Research in Organizational Behavior*, (7), 263-295.
4. Czerska, M. (2003). *Zmiana kulturowa w organizacji. Wyzwanie dla współczesnego menedżera*. Warszawa: Difin.
5. Cameron, K.S., & Quinn, R.E. (2003). *Kultura organizacyjna – diagnoza i zmiana*. Kraków: Oficyna Ekonomiczna.
6. Campbell, A., Devine, M., & Young, D. (1992). *Vision, Mission, Strategy: Activating the Company's Energies*. New York/Frankfurt: Campus Publisher.
7. Dolhasz, M., Fudaliński, J., Kosała, M., & Smutek, H. (2009). *Podstawy zarządzania, Koncepcje, strategię, zastosowania*. Warszawa: PWE.
8. Schein, E.H. (1984). Coming to a New Awareness of Organizational Culture. *Sloan Management Review*, 25(2), 3-16.

9. Harrison, R. (1972). Understanding Your Organization's Character. *Harvard Business Review*, May-June, 119-128.
10. Hatch, M.J. (2002). *Teoria organizacji*. Warszawa: PWN.
11. Hatch, M.J., & Schultz, M. (1997). Relations Between Organizational Culture, Identity and Image. *European Journal of Marketing*, 31(5/6), 356-365.
12. Hinterhuber, H.H. (1989). *Strategische Unternehmens Führung*. Berlin, New York: Walter de Gruyter.
13. Hofstede, G. (2000). *Kultury i organizacje*. Warszawa: PWN.
14. Kożusznik, B. (2002). *Zachowania człowieka w organizacji*. Warszawa: PWE.
15. Konecki, K., & Tobera, P. (2002). *Szkice z socjologii zarządzania*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
16. Masłyk-Musiał, E. (2003). *Organizacje w ruchu*. Kraków: Oficyna Ekonomiczna.
17. Mulder, P. (2013). *Organizational Culture Model by Edgar Schein*. Retrieved on 22/04/2017, from: <https://www.toolshero.com/leadership/organizational-culture-model-schein/>.
18. Pearce, J.A. (1982). The Company Mission as a Strategic Tool. *Sloan Management Review*, 23(3), 15.
19. Shein, E.H. (1984). Coming to a New Awareness of Organizational Culture. *Sloan Management Review*, 25(2), 3-16.
20. Shein, E.H. (1999). *Sense and Nonsense About Culture and Climate*. Sloan School of Management, Massachusetts Institute of Technology.
21. Sikorski, C. (2008). O zaletach słabej kultury organizacyjnej. *Zarządzanie zasobami ludzkimi*, 6, 39-48.
22. Sikorski, C. (1999). *Zachowania ludzi w organizacji*. Warszawa: PWN.
23. Sullivan, G.R., & Harper, M.V. (1997). *Hope Is Not a Method: What Business Leaders Can Learn from America's Army*. New York: Crown Business.
24. Zbiegień-Maciąg, L. (2008). *Kultura w organizacji: Identyfikacja kultur znanych firm*. Warszawa: PWN.

Chapter 5

Developing a Bank Using Diversification Strategies

Lesya Ratushna

1. Introduction

The activity of banking institutions is to offer various financial services to individual and business (corporate) customers. It is up to the broad offer of these services depends development and results of banking institutions. Among the methods used in this kind of development the institution is used, among others, diversification of banking products. Banks increasingly use intelligent combination of traditional and modern banking operations to secure the competitive position of the bank to attract new customers and offer them the new products and services that can significantly affect not only individual performance of banks, but also the entire banking system.

The paper presents the diversification of banking products as part of the strategy development of the bank on the example of Alior Bank (Poland). The paperwork characterizes the work of Alior Bank (Poland), describes its development history, organizational structure and the structure of its offerings, banking products in the context of the bank's adopted development strategy, diversification of products. The article was based on material analysis of the information about the bank described.

2. Characteristics of Alior Bank (Poland) – the history of the bank

The initiative to create Alior Bank was born in 2007. The originators were current members of the management team. Their work yielded the intended results, because they found an investor who spent 1.5 billion PLN to set up a bank. Alior Bank's business as an independent banking institution started on November 17, 2008. The bank owned 40 departments and employ 1,000 employees. Nearly 2 years of operation, the bank reached the threshold of operating profitability, and already in December 2012 made a debut on the Stock Exchange in Warsaw (*Alior Bank przejmuję...*, 2013).

In Table 1 the history of Alior Bank's development is presented.

The biggest shareholder of Alior Bank is the Italian company Carlo Tassara, which started its business in 1938 with headquarters in Breno. Main activity of the company, until the 90s, these were

the financial services of the metallurgical industry. Since 1996, the company has started investment, began to invest in shares of companies listed on stock exchanges (*Historia – Alior Bank*).

Table 1. History of the establishment and development of Alior Bank

April 18, 2008	The Polish Financial Supervision Authority issued a permit to set up Bank for the Carlo Tassara Group.
September 1, 2008	Alior Bank SA was authorized by the Supervisory Commission Financial to start a banking business.
October 28, 2008	The first branches of the bank were created.
November 17, 2008	Alior Bank commences operations.
April, 2009	Alior Bank has been awarded the “Investor in Human Capital” Program.
July, 2009	Alior Bank introduced the first Debit MasterCard in Poland enabling online payments.
August, 2010	Alior Bank took first place among universal banks offering mortgages.
September, 2010	Alior Bank was the first bank in Poland to make deposits currency with day capitalization of interest in EUR and USD.

Source: own study based on: (*Historia – Alior Bank*).

Alior Bank is a depository and credit bank, in other words, universal. His offers are addressed to both natural and legal persons. Main services performed by the bank are: keeping accounts, granting credits and loans, issuing bank securities, as well as buying and selling value foreign exchange. According to the statute Alior Bank is carrying out its activity on the territory of the Republic Poland and the European Economic Area (*Raport...*, p. 10).

Alior Bank is a very young bank, very active. This bank was already participant and laureate of many programs including laureate of the program “Investor in Human Capital”, This was due to the fact that young and creative people are working in the outlets and branches of the bank. Investing in human capital allows you to follow developments and be one step ahead of competitors. Alior Bank has also become a pioneer in the banking market through the introduction of the Polish Debit MasterCard online payment market. This service has brought to the bank even more customers who value comfort.

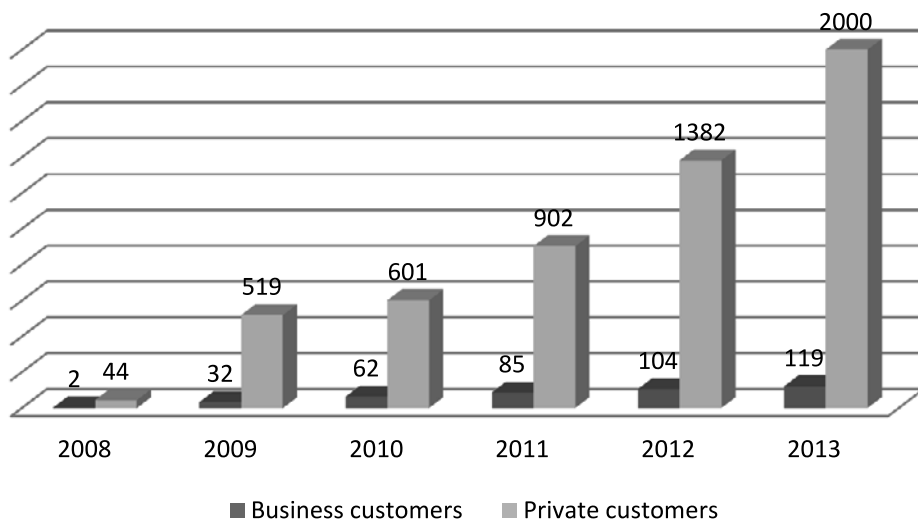
The purpose of creating Alior Bank was to maximize the potential of the Polish market financial statements. This idea came from (*Alior Bank S.A. ...*, p. 6):

- Entrepreneurship – nearly 4 million businesses in the country;
- The advantage of the Polish banking sector over outdated banks business;
- A very low number of banking services was observed compared to other EU countries.

As previously mentioned, Alior Bank’s offers are addressed both to customers retail (or individual, i.e. non-operating individuals) and businesses that using banking offers and services, and business entities (business people who settle in simplified or full form (*Regulamin udzielenia...*, p. 1)).

The bank’s offer combines innovative and classic products and services, which allowed to increase the number of customers from 2008 to 2013 from 44 thousand. up to 2 million. retail customers, and from 2 thousand. up to 119 thousand business clients (Irzyński, 2014). Change the number of bank customers over the years, it is shown in Figure 1.

Figure 1. Number of Alior Bank customers (in thou. PLN)



Source: (Irzyński, 2014).

According to data presented in Figure 1, dynamic pace is maintained due to increase in the number of new Alior Bank customers. At the end of 2013 the total number of bank customers has increased by 42% compared to 2012 at the end of 2015 Alior customers the bank has reached 2,996 million. Of the 2,996 million customers, about 2.86 million are customers individual, and more than 132.7 thousand are business customers. The increase in the number of customers was made up by 16.7 percentage increase in number of supported retail clients and increase in number Serviced by 8.4% (Liczba..., 2016).

3. Organizational structure Alior Bank (Poland)

According to the statutes, Alior Bank's organizational units are (*Statut...*, p. 14):

- Headquarters of the Bank, within which Divisions, Divisions, Departments and Offices operate,
- Macroregions (an area that holds several uniformities in some respects) (*Słownik...*, 2017),
- Regions (area with specific economic characteristics) (*Słownik...*, 2017),
- Branches (separated from the general structure of the internal unit that accomplishes the goals Statutory bank and has internal independence) (*Słownik...*, 2017),
- other organizational units.

The main bodies of Alior Bank S.A. are: General Meeting, Supervisory Board or the Board. According to the regulations, the Supervisory Board of Alior Bank is under continuous supervision (*Regulamin Rady...*, p. 1). The Supervisory Board of Alior Bank consists of chairman, deputy chairman and four members.

The responsibilities of the Supervisory Board are (*Sprawozdanie...*, 2014, pp. 109-110):

- assessment of the Management Board's report on the Bank's operations as well as the financial statements Bank for the previous financial year (compatibility with books and facts);
- evaluation of the Management Board's proposals for distribution of profits or coverage of loss;
- The Supervisory Board submits to the General Meeting an annual written report in which sums up the results from the evaluation of the Bank's operations;
- The Supervisory Board acts as a representative when concluding agreements with the Management Board Members;
- is the authority that approves the Bank's business strategies;
- sets the overall risk level of the Bank.

The basic document that regulates the activity of the Supervisory Board is the Alior Statute Bank and Alior Bank Regulations passed by the Supervisory Board. It is worth noting that despite that the meetings of the Supervisory Board are convened as required, but not less than three times in each financial year. The Supervisory Board's resolutions are approved by a larger number votes. If the number of votes is the same, the vote of the Chairman of the Board is decisive Board. In order for the adopted decision to come into force and be valid, the vote must take place at least half of the members of the Supervisory Board.

Another important body of Alior Bank is – the Board. In a joint stock company management board is acting as executive, dealing with company affairs and acting on her behalf, both in court as well as extra-judicial companies. As to the number of members of the Board and their members Appointment, it should be noted that the Board may consist either of one or more members, the right to appoint and dismiss the Supervisory Board unless the company's statute otherwise stated. The right to cancel or suspend a member of the Management Board is also done at shareholders meeting (*Zarzqd...*). The Management Board is made up of a president and four vice presidents, from whom everyone is responsible for his pawn. The statute also stated that this is to be at least 3 members appointed by the Supervisory Board for a joint term of office that lasts 3 years.

The activity of the Management Board is based on the resolution passed and approved by the Supervisory Board. It defines in great detail the competences of members and the President of the Board. Decisions about the bank's operations are issued in the form of a resolution by means of absolute majority of votes. And if the number of votes "for" and "against" is the same, decision belongs to the President of the Board. Apart from the resolutions, the Management Board may also issue opinions and orders (*Statut...*, pp. 8-9).

According to the Regulations of the Management Board, the duties of the President of the Management Board include, among others (*Regulamin Zarzqdu...*):

- coordinating the work of the entire Board as well as evaluating the work of its separate members,
- representing the Bank and the Board,
- creating ad hoc teams for specific tasks,
- convening a meeting of the Management Board and its chairmanship (this function can be performed by any of the Vice Presidents, or Board Members designated by the President).

It is also worth emphasizing that the members of the Management Board manage full appointed in The Rules of the Pawns. Within the scope of their Division, each member makes his own decisions regarding management, however, the responsibility for the activities of the bank Members of the Board bear together. In addition to the fact that the Board represents the bank

at the economic level and Social, it also deals with the development of development strategies and annual analysis (*Statut...*, pp. 8-9).

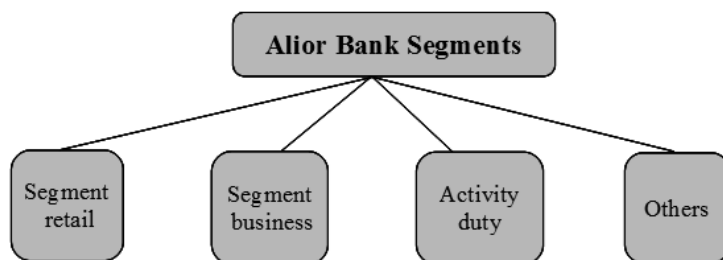
As previously mentioned Alior Bank is a joint stock company, and the highest authority is General Meeting of Shareholders (*Walne zgromadzenie...*). Participation in the General Meeting may take only and only the owners of the shares of the respective company (in this case – holders of Alior Bank shares). Each of stockholders have as many votes as they have in the share ownership. Scope of rights and duties of the General Meeting of Shareholders is included in the Code of Commercial Partnerships and Companies, as well as in the company statutes (*Co to jest...*). According to the Statute of the bank, the General Meeting is convened as ordinary or extraordinary. The right to convene the Ordinary General Meeting is vested in the Management Board and the Supervisory Board in the event of an extraordinary addition. Ordinary General Meeting Shareholders should be held in half-year after the end of each financial year. The Supervisory Board may convene the ordinary General Meeting when the Management Board does not meet at a certain time. The decision to accept or reject a resolution depends on the amount votes, the one-share rule applies – one vote. The Extraordinary General Meeting may be convened by the Management Board on its own initiative, at the request of the Supervisory Board, or upon request shareholders within two weeks of filing the application (*Statut...*, pp. 3-6).

4. Product structure Alior Bank (Poland)

Bank, is a kind of business that offers services to cCustomers of all kinds of products. In the literature of the subject bank product is often defined as a marketing product that accompanies material goods (*Uslugi bankowe w Polsce...*). Alior Bank has a very wide range of products aimed at a wide circle recipients. This diversity, the diversification of banking products is part of the strategy of development of the bank. Alior Bank's products are divided into four basic segments. They are shown in Figure 2.

The retail banking segment deals with individual clients, offers a lot of various products, so every customer can find a service tailored to the own needs. The retail segment also offers consumer finance services (Consumer finance), brokerage house and private banking (banking private). This kind of policy is conducive to the expansion of the individual customer base.

Figure 2. Structure of Alior Bank's banking products



Source: own study based on: (Raport..., 2016, p. 19).

For individual customers Alior Bank offers the following products (*Sprawozdanie...*, 2016):

- Current accounts. Alior Bank maintains a high number of savings accounts. According to data for 2015, 196,000 openings were opened accounts in Alior Bank and 183 thousand accounts at T-Mobile Banking Services (co-operation of both entities). The popularity of this type of accounts was due to the fact that in the third in the quarter of 2015, the bank introduced an account for its individual customers through Internet, which is conducted free of charge without the need to influence a certain amount of earned salaries or pensions. Additional advantage of the Internet Account is free of charge: Withdrawals from ATMs, internet transfers, European transfers and card issue account. Sale of the Internet Account in the last two quarters was over 27% of monthly sales of accounts in PLN. In 2015, the acquisition of accounts from the current offers, ie high quality accounts and reasonable accounts, accounted for 33% of sales monthly accounts in total. The above mentioned accounts are dedicated products mainly for active bank customers, treating Alior Bank as its main bank. Good results were also achieved by the sale of Fan Card with dedicated account – 12% sale of accounts in total. Alior Bank maintains a policy of product diversification.
- Cash loan. This type of product is highly valued among individual customers, as the received cash can be used for any purpose. Bank is constantly working on the development of this service to gain new and maintain current customers.
- Credit cards. The bank offers 4 types of credit cards addressed to different groups clients:
 - Gold card is directed to the segment of individual client mass,
 - World card for mass affluent segment customers,
 - World Elite card for Private Banking customers,
 - MasterCard ClubCard credit card dedicated to Tesco Finance customers.

At the end of 2015, the Bank had over 113 thousand credit card accounts and over 75 thousand renewable limits in the account.

- Mortgage product. To gain new customers in the third quarter of 2013 in eight biggest cities: Warsaw, Krakow, Wroclaw, Poznan, Lodz, Gdansk, Szczecin and Katowice have opened mortgage centers. With data for 2015 shows that such the center was already 10, centers in Lublin and Olsztyn joined the aforementioned cities. The purpose of these centers is to service customers within the mortgage. Sales of mortgages through Mortgage Centers accounted for 67% Alior Bank sales.
- Deposit products. The foundation of deposit products offered by Alior Bank accounts are savings accounts and standard deposits. In 2015 the Bank introduced 120-day and 210-day promotional incentives for customers to locate new funds in the Bank. They accounted for an average of 41% of the total measures. The Bank regularly recalls deposit offers through information activities mainly run on the Internet.
- Investment products. As regards investment products for individual clients in 2015, 23 product subscriptions were conducted. The bank also has an open model Co-operation with insurers, which gives customers the opportunity to invest in Long-term savings programs.
- Consumer Finance. This service is based on the granting of credits and loans for the purchase of goods consumers at the bank's trading partners. This service is shortened to Minimum time to prepare documents.
- Private Banking. This product is targeted at the most affluent individual customers who can leave the bank under the care of assets that exceed 400 thousand PLN. Such customers serve a special department of specialists from various industries with many years of experience.

The business segment offer at Alior Bank are addressed to business customers, also to large business entities that use advanced technology deposit and transaction solutions. With every year the number of business customers in Alior Bank is increasing. Business segment generated in 2015 revenues, before the costs of impairment losses, amounted to 810.7 million zł. This result was higher than the result achieved in the same period in the previous year by 99.5 million zloty, ie by 14% (*Sprawozdanie...*, 2016, pp. 51-53).

For business customers Alior Bank offers the following types of services (*Sprawozdanie...*, 2016, pp. 51-53):

- An assortment of proposed products for business clients are accounts, settlements and deposits. Offer business accounts tailored to business expectations of individual customer segments. For micro enterprises the bank proposes between other Partner Account and Community Account. The current service offer also expands account packages with a POS terminal or with a web development service. For customers running a full accounting, the bank offers accounting products. The ability to fully optimize the scope of services and their terms enables the Business Account Optimum. Standard products include Business Comfort and Business Profile. For Business customers also have various billing services available that make it easier carry out cash and non-cash transactions.
 - In addition to operating the business sector accounts, Alior Bank is also well positioned regarding developed credit line, that is, lending to business customers. Service offerings credit is addressed to all companies regardless of their status. Use Loans can be both small and large. Alior Bank offers also various types of training for entrepreneurs, among others. Is the organizer of the conference, he deals with advice on obtaining cash from the European Union. Such educational activities are conducive to increasing the customer base in the business segment.
- Treasury business segment – banking activity is concentrated in this segment: currency transactions, interest rate hedging, hedging raw material prices. Additionally, in this segment, Alior Bank manages liquidity management, conducts educational activities for clients. In the segment other capital investments are concentrated, ie all securities, valuable shares purchased by Alior Bank. Such securities include: stocks, bonds, Derivatives.

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5. Development strategy Alior Bank (Poland)

The bank's development strategy consists in carrying out a thorough analysis of the situation Now in the bank, verify the problems and determine how to solve them. Designing the bank's strategy is also important to find a way to bring your business to success, that is in the case of the bank finding a way to increase the customer base. The implementation of such a task is to introduce to the bank offer of new products, training staff so that they can professionally help in choosing the service – banking product, and also to improve their sales effectiveness.

When selecting a strategy, the following questions are very important (Jaworski & Zawadzka, 2002, pp. 482-483):

- What is the category of customers who will use the bank's products and services services?
- What products does the bank offer?
- In what area will the bank operate?

In the case of Alior Bank the development strategy is as follows – get about 2/3 value of future revenues. This result can be achieved by deepening the relationship with customers who use banking products. In other words, you should encourage your customers to buy as much cross-selling (*Alior Bank S.A.*, pp. 4-5). Alior Bank is looking forward to increase your customer base with an evolving distribution network. Systematic inclusion in the bank offer of new products related to the high quality customer service culture will help to join the existing customers of new banking services.

As previously emphasized, 2/3 value of future revenues Alior Bank is going to get cross-selling, and 1/3 – with new products and distribution channels. Such products are (*Alior Bank S.A.*, pp. 4-5):

- Alior Sync – a new generation virtual bank. This project has been in operation since June 15, 2012 Year, and on May 3, 2014 T-Mobile Banking Services changed.
- Alior Bank Express – mini branches close to the customer. This product is directed to mass market customers, in other words customers will appreciate it the fast service, easy access to products and locate branch in near the place of residence or purchase.
- Consumer finance. The purpose of this project is to develop a business based on credit consumer. For the project implementation, the bank cooperates with the largest networks retail stores and online stores.
- The cooperation of Alior Bank and T-Mobile has led to the implementation of an innovative combination of internet, mobile and web technology.

In addition to the described projects, Alior Bank intends to invest in the companies involved giving financial services in Poland. To implement this plan Alior Bank very carefully is watching the current companies on the financial market in Poland.

Alior Bank joined a group of banks issuing their own bonds and thus created an attractive investment proposition for customers. The Supervisory Board has given its approval program of issuance of unsecured own bonds with a maximum value of up to PLN 2 billion. By these activities will raise funds that will help secure potential funding acquisitions. Alior Bank ensures that the maturity of the issued bonds will not exceed 10 years (*Alior Bank podtrzymuje....*, 2013).

6. Conclusion

In today's fast-paced world, creativity play a big part innovation. This also matters in the case of the banking sector. Developing their services, tailoring the offer to the needs of clients, banks have a chance to get new markets or expansion of shares in existing markets, and thus increase your profits. As a result of growing demand for banking products sector, the bank should carefully analyze the market situation and current and potential customers needs. This analysis should take account not only of the economic situation but also of the situation on social market. The relevance of the current research on the banking services market is growing the impact of the globalization of financial markets, increased competition both domestic and in Global financial environment.

Banks have different development opportunities. One of them is implementation of development strategy based on the diversification of banking products. This diversification is to be a response to the fact that banks understand and meet the needs of their bank customers. In this approach banks offer to their customers a wide range of products, and also create new, often innovative and intelligent combination of traditional and modern banking operations and products. Such

a strategy diversification helps both to maintain a steady stream of existing customers – through responding to their needs and offering attractive services and above all securing and it strengthens the competitive position of the bank, attracting new customers, interested in new ones attractive banking products on the banking market. These new, often innovative products and services can significantly affect the performance of not only individual banks, but also the whole banking system.

The paper characterizes the activity of Alior Bank (Poland) with particular emphasis on the bank's development strategy of diversifying banking products. Alior Bank's strategy is based on deepening relationships with the present clients and acquiring new ones by directing the offer containing innovative ones proposals for banking products.

Bibliography

1. *Alior Bank podtrzymuje strategię dynamicznego rozwoju organicznego*. (2013). Retrieved on 16/02/2017, from: <https://tinyurl.com/dxygu74>.
2. *Alior Bank przejmie dom maklerski Money Makers za 4,6 mln zł*. (2013). Retrieved on 15/02/2017, from: <https://tinyurl.com/y8xb6ayr>.
3. *Alior Bank S.A. – informacje o Spółce*. Retrieved on 15/02/2017, from: <https://tinyurl.com/y9ak5gr8>.
4. *Co to jest Walne Zgromadzenie Akcjonariuszy (wza)?* Retrieved on 16/02/2017, from: <https://tinyurl.com/yalqs48u>.
5. *Historia – Alior Bank*. Retrieved on 15/02/2017, from: <https://tinyurl.com/y7x4llxa>.
6. Irzyński, R. (2014). *Alior Bank – jeden z liderów innowacyjności w polskiej bankowości*. Retrieved on 14/02/2017, from: <https://tinyurl.com/y9czs2ga>.
7. Jaworski, W.L., & Zawadzka, Z. (Eds.). (2002). *Bankowość. Podręcznik akademicki*. Warszawa: Poltext.
8. *Liczba klientów Alior Banku wzrosła o 16,3% r/r do prawie 3 mln w 2015 r.* (2016). Retrieved on 16/02/2017, from: <https://tinyurl.com/y9732vpz>.
9. *Raport Grupy Kapitałowej Alior Banku Spółki Akcyjnej za I kwartał 2016 r.* Retrieved on 15/02/2017, from: <https://tinyurl.com/ybaws2ln>.
10. *Regulamin Rady Nadzorczej Alior Bank Spółka Akcyjna*. Retrieved on 14/02/2017, from: <https://tinyurl.com/y7ntp4dq>.
11. *Regulamin udzielania kredytów na zakup pojazdu dla Klientów Indywidualnych i Klientów Biznesowych*. Retrieved on 15/02/2017, from: <https://tinyurl.com/yc3dx5eg>.
12. *Regulamin Zarządu Alior Bank Spółka Akcyjna*. Retrieved on 16/02/2017, from: <https://tinyurl.com/ycghoqp7>.
13. *Słownik Języka Polskiego PWN* (2017). Retrieved on 14/02/2017, from: <https://sjp.pwn.pl>.
14. *Sprawozdanie Zarządu z działalności Grupy Kapitałowej Alior Banku S.A. w 2013 r.* (2014). Retrieved on 14/02/2017, from: <https://tinyurl.com/y9s3z7vv>.
15. *Sprawozdanie Zarządu z działalności Grupy Kapitałowej Alior Banku S.A. w 2015 r.* (2016). Retrieved on 16/02/2017, from: <https://tinyurl.com/ybaws2ln>.
16. *Statut Alior Bank Spółka Akcyjna*. Retrieved on 15/02/2017, from: <https://tinyurl.com/y7qvqk98>.
17. *Usługi bankowe w Polsce*. Retrieved on 16/02/2017, from: <https://tinyurl.com/ybgtskf8>.
18. *Walne zgromadzenie*. Retrieved on 16/02/2017, from: <https://tinyurl.com/ya8xkxj6>.
19. *Zarząd spółki akcyjnej*. Retrieved on 16/02/2017, from: <https://tinyurl.com/yadhrxsx>.

Chapter 6

Performance Management Concept: Knowledge Transfer from General Management into Project Environment¹

Eryk Głodziński

1. Introduction

Management concept is a general idea of decision taking, philosophy of thinking and doing that can be implemented by some organisations in order to achieve the objectives more effectively. It consists of ideological (backgrounds, paradigms, principles etc.) and instrumental (supported methods and techniques) part. The literature shows many concepts of management. K. Zimniewicz (1990) described management by: exceptions, objectives, delegation, participation. J. Lichtarski (2005, pp. 317-389) with his research group presented the following multiperspectives management concepts on: LM, Business Process Reengineering (BPR), Procurement Management, QM, Controlling, Value Based Management – VBM. K. Bartusik (2004, p. 12) summed up the mentioned management concepts and divides them, applying criteria of novelty, into three groups: classical (TBM, Procurement Management, Total Quality Management – TQM), contemporary (BPR, LM, Outsourcing, Benchmarking), modern (VO, fractal organisation, KM). K. Perechuda (2000) with his research team described three management concepts: systems, fractal organisation, intelligent enterprise. The academics presented general methods of management by: targets, motivation, exceptions, innovation, communication, participation, conflict, crises, delegation of permissions, tasks, autonomy groups, formalisation, risk, government and control, quality, controlling, time, intuition, culture, matrix structure, internal marketing organisational space. The mentioned methods, therefore, management by targets, results, and deviations were associated by H. Bieniok and the team as motivation instruments (1997). H. Jung (2010) listed the following proposals: LM, chaos-, visionary-, quality-, innovation-, natural environment protection-, multinational- management, new organisation forms.

The presented classifications show the variety of proposals and huge differences between them. There is to be noticed the repetitiveness of some concepts. However, one can see, in some cases,

¹ The publication was financed from the statutory research funds of the Warsaw University of Technology.

low internal cohesion of the classification elements e.g. VO and KM. Proper classification is one of the transfer stimulants among the various knowledge areas. It is especially important since different concepts could be applied simultaneously in the same organisation.

The paper describes selected issues related to the adaptation of performance concept into project environment. Its main goals are to present the philosophy of performance management and to propose methodology of design and exploitation of the concept. In order to achieve the presented objectives the understanding and development process of the concept in theory of organisation was described. Next, the scope of its adaptation in project environment was presented. Finally, the differences and similarities of project performance management, project portfolio performance management were presented and methodology of design and exploitation of the concept was suggested.

The study was based on the assumption that performance should be assessed for individual projects, programs, project portfolio, and Project-Based Organisations considering multidimensional approach – financial and non-financial aspects, qualitative and quantitative measures, project leaders and corporate managers' interests. During the research process the systematic analysis of literature (from electronic research databases such as: Ebsco, ProQuest and Google Scholar), direct observation of PBO from insider position (experience of the author who was responsible for project and company controlling system by multinational PBO and took part in execution of some business investment projects from client perspective) and inductive interference were applied.

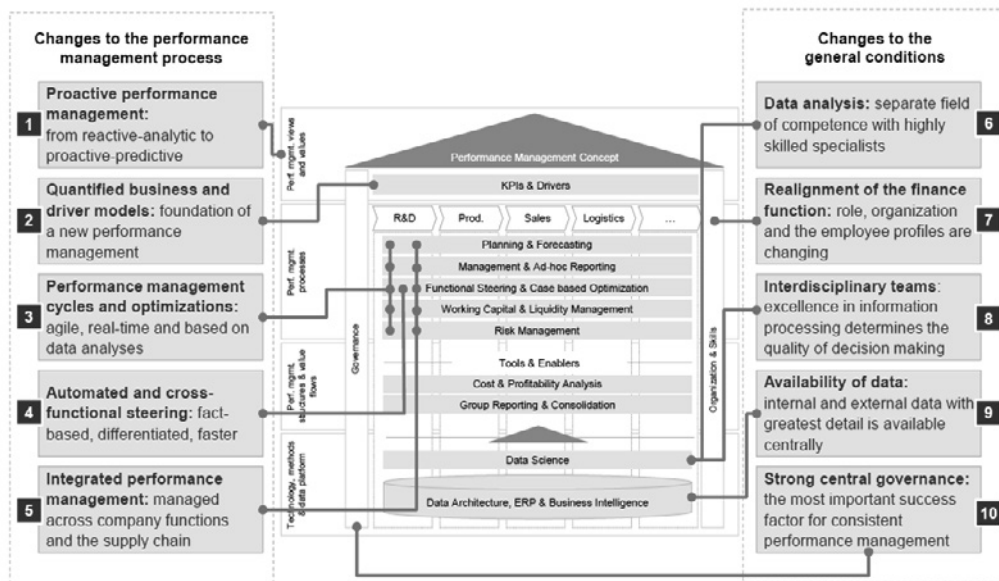
2. Performance management concept: scope and development

The research area of performance management is explored by numerous of academics for years (Venkatraman, & Ramanujam, 1986, pp. 801-814). One of the valuable definitions describes that it is "the process of quantifying the action (...) leads to performance (...) defined as efficiency and effectiveness of action" (Neely, Gregory & Platts, 1995, pp. 80-81). Efficiency should be understood as optimisation of the relationship between outputs and inputs that were consumed to deliver them. Effectiveness is the extent to which the achieved results of an action meet our objectives (plans, expectations, requirements etc.). The analysis of presented approach shows that the performance management was developed basing on various management concepts, i.e. management by targets, results, and deviations. The performance objects evaluated many times, from measurement of labour work to the concept covered all activity of the entity, called Business Performance Management (BPM), Corporate Performance Management (CPM), or Enterprise Performance Management (EPM) (Czekaj & Ziębicki, 2014, p. 13). However, the general idea presented by D. Amaratunga and D. Baldry (2002, p. 218) that "performance management provides organisations the opportunity to refine and improve their development activities" is still relevant.

The study of International Controller Association, International Performance Research Institute and Horvath & Partners Management Consultants suggested that digitalization is radically changing CPM. They suggested five trends that should improve the performance management process (Fig. 1), therefore adaptation of agile method for continuous improvements and implementation of proactive-predictive actions as a response to current and estimated figures. The proposition seems to be significant. However, the application of CPM requires considering existing business model of the organisation and managers' needs. According to organisation balance growth theory

or sustainable development of the entities performance concept should include multidimensional approach (analysis in various perspectives: financial, social, technological etc.), measurable and difficult to measure (qualitative) targets.

Figure 1. The influence of digitalization on Corporate Performance Management



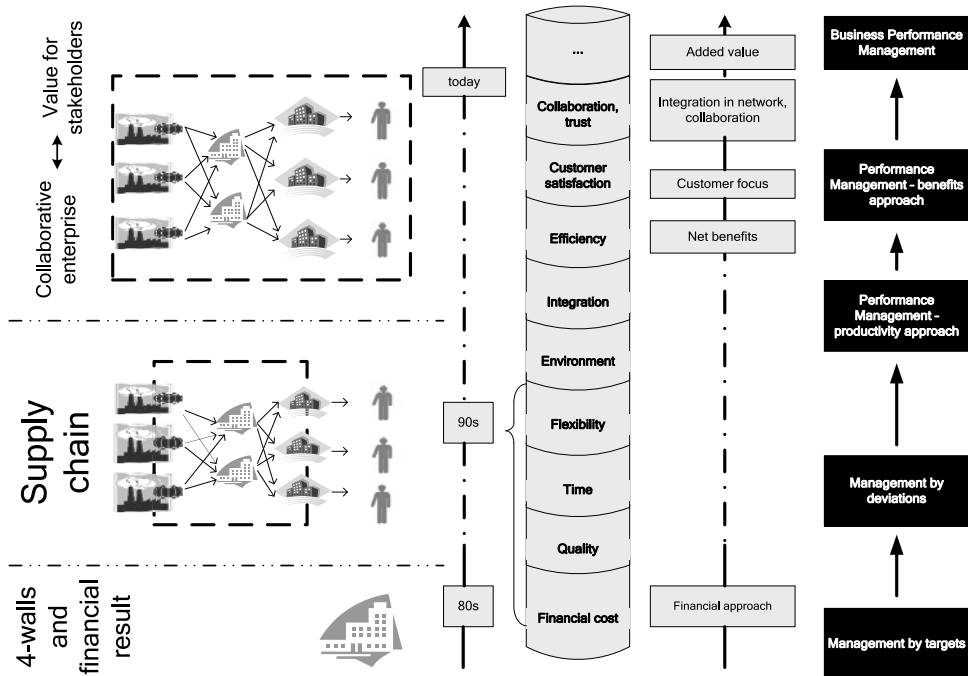
Source: (ICV, IPRI, H&P, 2016).

The improvement of performance process should be conducted starting from subprocesses level of:

- measurement (design the measures and monitor them for assessing the activity of research object),
- planning (planning the objectives – inputs and/or outputs),
- analysis (data processing – interpreting and reporting),
- evaluation (reviewing current inputs and outputs and comparing with plans),
- acting (using data and information in decision taking).

Regarding the statement presented by U.M. Bititci (2015, p. 29) that performance management is “the cultural and behavioural routines that define how we use the performance measurement system to manage the performance of an organisation”, significant attention should be drawn to designing the measures. The system evolved from cost-based to multidimensional (Fig. 2). R. Eccles, pointed that “the leading indicators of business performance cannot be found in financial data alone. Quality, customer satisfaction, innovation, market share-metrics like these often reflect a company’s economic condition and growth prospects better than its reported earnings do” (Eccles, 1991, p. 131). Current approach of performance measurement management evolved to continues increase of organisation value that should enhance competitiveness and development in the market. However, other presented approaches, especially client satisfaction and efficiency are still key drivers of operational and strategical decisions.

Figure 2. Evolution of Performance Measurement



Source: own elaboration based on (Busi & Bititci, 2006, p. 13).

There are a lot of instruments supporting the managers in designing measurement systems. Chronologically the most influential are:

- Du Pont model with ratios: ROI or RONA (financial set of means developed since 1984),
- Performance Measurement Matrix (following groups of means were defined: efficiency, effectiveness, related to: collaboration, managers' skills, innovativeness; developed since 1989) (Yuan, Qin & Holland, 2011, pp. 152-184),
- Performance Measurement Questionnaire (tool prepared by Dixon, Nanni & Vollmann in 1990) (Bourne et al., 2003, p. 13),
- Result and Determinants Framework (instrument divides the means into two groups: result-focused (competitiveness, financial result) and result determined (quality, flexibility, resource utilization, innovativeness; developed since 1991) (Neely et al., 2000, pp. 1122-1123),
- EFQM Excellence Model (consists of: leadership, policy and strategy, personnel management, resources, customer and employee satisfaction, environmental impact, results from operation; developed since 1991),
- Performance Pyramid (model describing the relationship among organisation and its members' strategy and operational activities focused on efficiency means; developed since 1992) (Garengo, Bizao & Bititci, 2005, p. 38),

- Pyramid of Organisational Development (consists of following development areas: organisational culture, market, goods and services, resource management, operational systems, strategic management system; developed since 1995) (Ng & Kee, 2013, p. 45),
- Balance Scorecard (focused on following perspectives: financial, customer, internal process, learning and growth; developed since 1996) (Kaplan & Norton, 1996),
- Cambridge Performance Measurement Design Process (based on five following subprocesses: product grouping related to competitiveness criteria, setting business objectives, designing measures, testing measures and selecting the bests, implementing and further developing; developed since 1996) (Bourne et al., 2003, pp. 11-12),
- Integrated Performance Measurement System Reference Model (analysis of four levels: enterprise, business units, process, operational activity that are divided into following areas: shareholders, control indicators, positioning in the environment, improvement goals, internal assessment indicators; developed since 1997) (Bititci, Carrie & McDevitt, 1997, pp. 522-534),
- Performance Prism (covers five areas of analysis: client satisfaction, processes, production capabilities, added value for shareholders; developed since 2000) (Neely, Adams & Crowe, 2001, pp. 6-13),
- Integral Framework for Performance Measurement (model describing the macro and microenvironment, integrating the current findings; developed since 2003) (Rouse & Putterill, 2003, pp. 791-805).

The presented state of knowledge seems to be extensive and applicable. The methodological, organizational, or instrumental aspects are being developed and applied by scholars and managers in various disciplines, business areas or sectors of economies. The researchers proposed various perspectives of analysis – financial and non-financial. However, not all proposals were successfully transferred from theory into the business. The most popular with enterprises are Du Pont model, EFQM Excellence Model, Performance Pyramid, Balance Scorecard, Integral Framework for Performance Measurement. Some of them were adopted in project environment.

3. Adaptation of performance management in project environment

The academic research showed the increase of project approach utilization in organisations (see: Frame, 2003; White, Jugdev & Walker, 2011, pp. 553-572). This is the result of rapid extension of knowledge and experience that were gathered in various methodologies (PMBok, Prince2, Scrum etc.). They include the analysis and assessment of project performance. The methodologies are based on knowledge and collected experience of practitioners and are popularized through certification process conducted by several professional institutions (e.g. Project Management Institute, Association for Project Management, Office of Government Commerce). On the other hand, the adaptation of performance management concept to the project environment is a natural consequence of knowledge transfer from theory of organisation (general management) into other areas of science and business. It requires the understanding of peculiarities of various project environment objects, especially aspects related to targets and their achievements (Tab. 1).

Table 1. Peculiarities of various project environment objects

	Project	Program	Project portfolio	Project-Based Organisation
Key understanding	Temporary organisation focuses on unique product execution	Temporary organisation comprising benefit correlated group of projects	Permanent organisation consisting of projects / programs needed to achieve PBO objectives	Permanent organisation executing business external projects / programs as a core
General idea	Doing project right	Doing program right	Doing right projects and programs	Increase the competitiveness, stakeholders value
Targets	Optimisation of project achievements	Optimisation of integrated program achievements	Optimisation of synergy of projects achievements	Optimisation of all organisation achievements
Time perspective assessment	Project Life Cycle (PLC)	Program Life Cycle (PmLC)	Company Life Cycle	Company Life Cycle
Recommended monitoring time	Monthly, quarterly, by stages of PLC and PmLC		Monthly, quarterly, yearly	
Responsibility person	Project manager	Program manager	Project portfolio manager	Chief Executive Officer

Source: own elaboration.

The literature analysis and findings of direct observation show that the knowledge transfer among objects of project environment is the result of close collaboration between scholars and practitioners from various institutions e.g. PMI, APM. In most cases the business defines the issues that are solved by researchers preparing expertise, creating theory or designing management supporting tools². Historically, first knowledge transfer was conducted from theory of organisation to individual project management applying the nature of project as a temporary organization³. After a few years performance concept was adapted for management of project groups – programs and project portfolio (Fig. 3).

Adaptation of EFQM Excellence Model into project environment is one the examples of knowledge transfer. It led to designing PMPA model (Project Management Performance Assessment) that consists of following elements: project management leadership, project team, project management policy & strategy, project management partnership & resources, project life cycle & project processes, and key performance indicators (KPIs) (see: Qureshi, Warraich & Hijazi, 2009, p. 382; Bryde, 2003, p. 243). The research findings by T.M. Qureshi, A.S. Warraich and S.T. Hijazi (2009, pp. 378-388) suggested that “key performance indicators have the highest impact over the project management performance”. Design of them is the crucial

² See especially the findings of optimization school (Söderlund, 2011, pp. 153-176).

³ The paper defines project as temporary organisation. It is one of the leading approaches in project management theory (see: Lundin & Söderholm, 1995, pp. 437-455; Packendorff, 1995, pp. 319-333; Turner & Müller, 2003, pp. 1-8).

stage of measurement system creation. However, KPIs as tools supporting decision taking do not substitute the managers' thinking or collaboration inside project team or between client and project executor. It means that the project added value is created primarily as a result of proper use of digitalized figures.

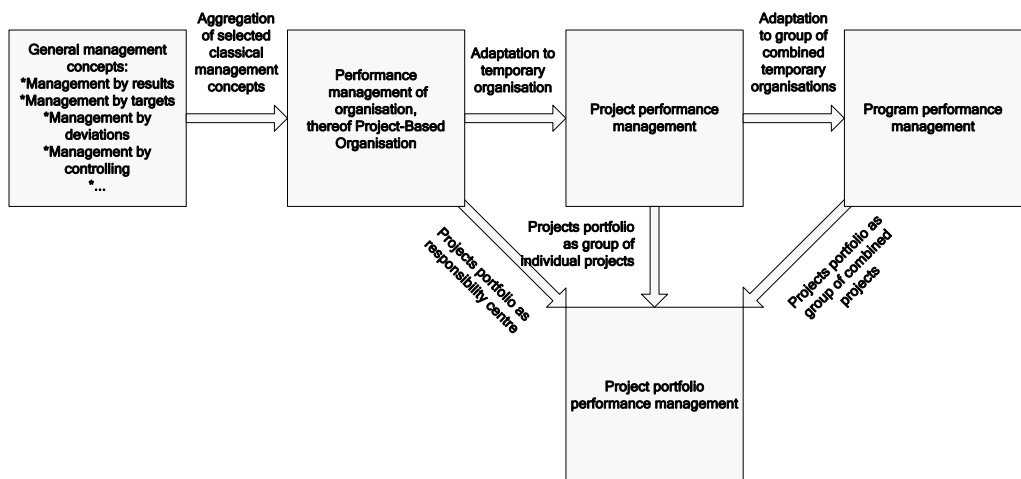
Project Performance Scorecard is the second important example of the knowledge transfer. It was created basing on mentioned in the paper Balance Scorecard. In the adaptation process K. Niebecker, D. Eager and K. Kubitzka devised the strategy map for product development projects. The researchers argued that (2008, pp. 374-375):

- project budget, categorisation of multi-project management, value enhancement comprise financial perspective,
- customer satisfaction defines customer perspective,
- adherence to schedule, quality, optimising project structure, minimising risks, innovation enhancement comprise process perspective,
- employee qualification and satisfaction define development perspective.

C. Barclay (2008, p. 337) suggested that Project Performance Scorecard consists of five perspectives: project process, benefit, use, quality, innovation & learning. The recommendations follow the multidimensional approach and project success criteria that should be further operationalized considering contingency approach.

The presented concepts/tools should be considered when designing the performance management system. The crucial issue of concept exploration and exploitation is to combine the different targets of projects, programs, project portfolio (Müller, Martinsuo & Blomquist, 2008, pp. 28-42), PBOs and their responsible persons. In order to face the challenge the below presented methodology was suggested (Tab. 2).

Figure 3. Direction of adaptation of performance concept into the project environment



Source: own elaboration.

Table 2. Methodology of design and exploitation of performance management in project environment

	Stages	Responsible subjects
Design	Define / redefine managers' information needs – separately for project, program, project portfolio, and PBO (scope, aggregation level, delivery time etc.)	PBO managers, project portfolio managers and supporting company departments
	Design the monitoring system (methods of data collecting, measures reflecting PLC etc.)	PBO managers and supporting company departments
	Conduct the analysis of correlation between the measures (e.g. client satisfaction vs project portfolio revenue)	PBO managers and supporting company departments
	Establish planning, analysis, and assessment methods using the philosophy PBO strategy => PP strategy => P strategy	PBO managers and supporting company departments
	Combine the motivation system with performance assessment	PBO managers and supporting company departments
Exploitation	Establish/ update individual targets (planning values) for each project reflecting project portfolio and PBO targets	project managers, project portfolio managers and supporting company departments
	Monitor current and estimate future figures	project managers and supporting project team members
	Analyse the data and prepare the information (reports), suggest proactive actions	project managers and supporting project team members, supporting company departments
	Discuss the figures and quality information and take operational decisions	project managers and supporting project team members
	Report the situation on project level and discuss current and future activities, take strategic decisions	project managers, project portfolio managers, PBO managers

Source: own elaboration.

General objective of design process is to create the principles of performance management exploitation. Adaptation of the presented performance subprocesses means designing them considering the correlation among projects, programs, project portfolio, and PBO. Primarily, project initial data (negotiated with client in tender stage) defines the planned targets, therefore final results that will be a part of PBO's result. Secondly, project planning process after contract award should be conducted reflecting the project portfolio approach, mainly considering availability of knowledge and resources. Thirdly, project strategy should follow the company strategy that can be difficult if the temporary organisation possess wide scope of autonomy. However, adequate – for the needs of PBO's managers – project governance system supports combining of different targets. Fourthly, performance targets should be updated in line with the changes in environment. Additionally, the performance management proactiveness means the use of past data and information to predict the future.

4. Conclusion

The paper pointed out the existing relationships between classical organisation theory (management by targets, results etc.) and performance management. The presented findings suggest wide range of BPM, CPM, or EPM application. The system should include simultaneous use of qualified and quantified measures. Existing numerous data and information require digitalization of performance management.

One of the crucial issues in adaptation of performance concept in project environment is the differences occurring among targets of individual projects, programs, project portfolio. They are the result of project autonomy, insufficient collaboration among various levels of managers, the need to use multidimensional approach in management process. In order to reduce the differences the main requirements are: proper understanding of company strategy on project/program level, right selection of projects and programs for tendering stage (basing on resources, knowledge, experience etc.), participation of project/program managers in planning/tender stage (responsibility for PLC, PmLC), considering various targets in organisation motivation system. The presented methodology of design and exploitation of project performance management suggests the mentioned recommendations.

The proposal should be evaluated in various types of PBOs – depending on their size or sectors of economy they operate in. The paper does not present the examples of project performance measures. They are presented in the literature. However, the combining of qualitative and quantitative measures should be the objective of further scientific studies.

Bibliography

1. Amaratunga, D., & Baldry, D. (2002). Moving from Performance Measurement to Performance Management. *Facilities*, 20(5/6), 217-223.
2. Barclay, C. (2008). Towards an Integrated Measurement of IS Project Performance: The Project Performance Scorecard. *Information Systems Frontiers*, 10(3), 331-345.
3. Bititci, U.S. (2015). *Managing Business Performance*. John Wiley & Sons.
4. Bititci, U.S., Carrie, A.S., & McDevitt, L. (1997). Integrated Performance Measurement Systems: A Development Guide. *International Journal of Operations & Production Management*, 17(5), 522-534.
5. Bourne, M., Neely, A., Mills, J., & Platts, K. (2003). Implementing Performance Measurement Systems: A Literature Review. *International Journal of Business Performance Management*, 5(1), 1-24.
6. Bryde, D.J. (2003). Modelling Project Management Performance. *International Journal of Quality & Reliability Management*, 20(2), 229-254.
7. Busi, M., & Bititci, U.S. (2006). Collaborative Performance Management: Present Gaps and Future Research. *International Journal of Productivity and Performance Management*, 55(1), 7-25.
8. Czekaj, J., & Ziębicki, B. (2014). Ewolucja i dyfuzja koncepcji Performance Management. *Organization and Management*, 3, 11-23.
9. Eccles, R. (1991). The Performance Measurement Manifesto. *Harvard Business Review*, 69(1), 131-137.

10. Fortune, J., White, D., Jugdev, K., & Walker, D. (2011). Looking again at Current Practice in Project Management. *International Journal of Managing Projects in Business*, 4(4), 553-572.
11. Frame, J.D. (2003). *Managing Projects in Organizations: How to Make the Best Use of Time, Techniques, and People*. John Wiley & Sons.
12. Garengo, P., Bizaao, S., & Bititci, U.S. (2005). Performance Measurement Systems in SMEs: A Review for Research Agenda. *International Journal of Management Reviews*, 7(1), 25-47.
13. ICV, IPRI, H&P (2016). *Business Analytics. The Road to Data-Driven Corporate Performance Management*. Retrieved on 15/04/2017, from: https://www.icv-controlling.com/fileadmin/Assets/Content/AK/Ideenwerkstatt/Dream_Car_Business_Analytics_EN.pdf.
14. Kaplan, R.S., & Norton, D.P. (1996). *The Balanced Scorecard: Translating Strategy into Action*. Harvard Business Press.
15. Lundin, R.A., & Söderholm, A. (1995). A Theory of the Temporary Organization. *Scandinavian Journal of Management*, 11(4), 437-455.
16. Müller, R., Martinsuo, M., & Blomquist, T. (2008). Project Portfolio Control and Portfolio Management Performance in Different Contexts. *Project Management Journal*, 39(3), 28-42.
17. Neely, A., Adams, Ch., & Crowe, P. (2001). The Performance Prism in Practice. *Measuring Business Excellence*, 5(2), 6-13.
18. Neely, A., Gregory, M., & Platts, K. (1995). Performance Measurement System Design: A Literature Review and Research Agenda. *International Journal of Operations & Production Management*, 15(4), 80-116.
19. Neely, A., Mills, J., Platts, K., Richards, H., Gregory, M., Bourne, M., & Kennerley, M. (2000). Performance Measurement System Design: Developing and Testing a Process-based Approach. *International Journal of Operations & Production Management*, 20(10), 1119-1145.
20. Ng, H.S., & Kee, D.M.H. (2013). Organisational Culture Can Be a Double-edged Sword for Firm Performance. *Research Journal of Business Management*, 7(1), 41-52.
21. Niebecker, K., Eager, D., & Kubitza, K. (2008). Improving Cross-company Project Management Performance with a Collaborative Project Scorecard. *International Journal of Managing Projects in Business*, 1(3), 368-386.
22. Packendorff, J. (1995). Inquiring into the Temporary Organization: New Directions for Project Management Research. *Scandinavian Journal of Management*, 11(4), 319-333.
23. Qureshi, T.M., Warraich, A.S., & Hijazi, S.T. (2009). Significance of Project Management Performance Assessment (PMPA) Model. *International Journal of Project Management*, 27(4), 378-388.
24. Rouse, P., & Putterill, M. (2003). An Integral Framework for Performance Measurement. *Management Decision*, 41(8), 791-805.
25. Söderlund, J. (2011). Pluralism in Project Management: Navigating the Crossroads of Specialization and Fragmentation. *International Journal of Management Reviews*, 13(2), 153-176.
26. Turner, J.R., & Müller, R. (2003). On the Nature of the Project as a Temporary Organization. *International Journal of Project Management*, 21(1), 1-8.
27. Yuanyuan, Y., Qin, S., & Holland, R. (2011). Development of a Design Performance Measurement Matrix for Improving Collaborative Design during a Design Process. *International Journal of Productivity and Performance Management*, 60(2), 152-184.

Chapter 7

The Effectiveness and Efficiency of Project Management Communication

Fabio Fragomeni, Rosalba Rizzo

1. Introduction

It is well documented that communication-related issues is probably one of the biggest challenges a project manager is faced with on a project. Not addressing and effectively applying communication skill is one of the biggest mistakes most inexperienced project managers make. With a project manager spending almost ninety percent of his or her time communicating, it is of critical importance that communication management is effectively planned, managed and controlled on any project.

Language is one of the modes that allows people to communicate with great precision. How does language interact with people's emotional and motivational aspect so that it effectively moves or persuades them? How do people use the language in specific discourse contexts, to share information with others, and to persuade or otherwise affect them? To give an answer to these questions, first of all it is important to understand how language is actually used, when it is used effectively, and why.

Language is an abstract system of symbols and meaning. This system includes the rules that relate symbols and meanings so that we can communicate each other. Language and its related processes may be the most important features distinguishing humans from all other animals. Opposite to this formal approach, language is the encoding of "behaviour potential into meaning potential" (Sindoni, 2011), a way through which people can express WHAT THEY CAN DO, by establishing relationship with others and by converting all this into WHAT THEY CAN MEAN (Halliday, 2003). Then, language shapes experience and helps people connect and establish relationship with other people and with the world [...] (Sindoni, 2011).

Rivers (1981) distinguishes language as a product, as a tool, as a communication process. The former level turns language in an object of study within the discipline of linguistics. In this case language is analyzed in phonological, syntactic, morphological and semantic terms regarding parts of speech and syntactic rules. Within the second level, our intentions to convey meaning are given prominence, and the ways we can use language are described in terms of semantics, expressing a wide range of personal meanings such as asking, denying, persuading or stating. The latter level deals with how to formulate messages to express specific meanings whether

in oral or written form in order to effect our purposes and avoid misleading in particular situation. Rivers also states that we may identify two levels of language use: manipulation of language elements, combining and varying them in order to express our meaning comprehensibly according to the demands of the language system (here we refer to phonology, orthography, syntax, lexicon and semantics) and expression of personal meaning, selecting appropriate means with infinite possibilities of expression: the selection depends on the type and degree of intensity of the message to be conveyed, the situational context in which the utterance takes place and the relationship between speaker and the listener.

Language is central to all our lives, and is arguably the cultural tool that sets humans, us, apart from any other species and the functional tool for development which enriches through the accumulation of daily experiences (Sindoni, 2011, p. 27). And on some accounts, language is the symbolic behaviour that allowed human singularities—art, religion and science—to occur. We use it to buy groceries in the supermarket, to get a job, to hire or fire an employee, to buy train tickets, and to compose an email. We use it to make a telephone call, to flirt, to invite someone out on a date, to propose marriage, to get married, to quarrel, and to make up afterwards. Language allows us to make friends, and enemies, to pass the time of day, and so on. In our everyday lives we produce and comprehend language with such apparent ease that we take it for granted.

Proper language is of paramount importance to ensure successful communication for stakeholder engagement and management. Communication on a project is not merely issuing a periodical project status update report. It is a critical method by which stakeholders are engaged in order to ascertain and fully understand their needs, what they need to have communicated to them, in gathering information from stakeholders and also to eliminate unnecessary problems as result of a lack of or improper communication.

2. Communication and its processes

Communication, the act of transferring information from one place to another, can occur in one-on-one or group settings, in verbal and non-verbal formats or written and visual formats (Tab. 1). According to Claude Shannon, Wilbur Lang Schramm and Robert Craig, the model of communication involves eight elements: source, message, encoding, channel, decoding, receiver, feedback and contexts. The source is the origin, whether living or non-living, from where the communication emanates and is attempting to be shared or distributed from; the message is the information that is being communicated; encoding is the process of compiling the information into an effective package which can be easily understood by the intended recipient; channel is the medium used to convey or transport the encoded message to the intended recipient and decoding is the process of translating or extracting encoded information into an understandable language or form, whether is spoken or written symbols. With a properly crafted message which is correctly encoded by the source, the receiver (the intended recipient of the message) has no problem in decoding and understanding the message. Ultimately the source determines the success based on feedback received from the receiver. The context encompasses the environment in which the message is delivered. Whether it is the language used or the channel selected, context is extremely crucial to the effectiveness of communication.

Table 1. Communication

Verbal communication	Non-verbal communication	Written communication	Visual communication
Face-to-face	Body language	Letters	Graphs
Telephone	Gestures	E-mails	Charts
Television	How we dress or act	Books	Maps
Radio		Magazines	Logos
Other media		Social Network	Other visualizations can communicate messages

Source: own elaboration.

The process of *interpersonal communication* cannot be regarded as a phenomenon which simply ‘happens’, but should be seen as a process which involves participants negotiating their role in this process, whether consciously or unconsciously. It involves not only the content of a message but also its emotional impact or the effect the message has on the person receiving it.

Senders and receivers are of course vital in communication. In face-to-face communication the roles of the sender and receiver are not distinct as both parties communicate with each other, even if in very subtle ways such as through eye-contact (or lack of) and general body language. The sender must encode the message into a form that is appropriate to the communication channel, and the receiver then decodes the message to understand its meaning and significance.

Communication experts suggest that between 65% and 93% of the meaning of a message is conveyed through tone of voice and non verbal behaviours (Johnson, 2003): the tone of our voice can give clues to our mood or emotional state, whilst hand signals or gestures can add to a spoken message.

In written communication the sender and receiver are more distinct. Until recent times, relatively few writers and publishers were very powerful when it came to communicating the written word. Today we can all write and publish our ideas online, which has led to an explosion of information and communication possibilities.

The critical factor in measuring the effectiveness of communication is understanding. Understanding exists when all parties involved have a mutual agreement as to not only the information, but also the meaning of the information. Effective communication, therefore, occurs when the intended message of the sender and the interpreted message of the receiver are one and the same. Although this should be the goal in any communication, it is not always achieved.

The most efficient communication occurs at a minimum cost in terms of resources expended. Time is an important resource in the communication process. For example, it would be virtually impossible for a manager to take the time to communicate individually with each employee in an office about every specific topic covered. Even if it were possible, it would be costly. This is why managers often leave voice mail messages and interact by e-mail rather than visit their subordinates personally.

However, efficient time-saving communications are not always effective. A low-cost approach such as an e-mail note to a distribution list may save time, but it does not always result in everyone getting the same meaning from the message. Without opportunities to ask questions and clarify the message, erroneous interpretations are possible. In addition to a poor choice of communication method, other barriers to effective communication include noise and other physical distractions, a language problems, and failure to recognize non verbal signals (Tab. 2).

Table 2. Barriers to effective communication

Language Barriers	Environmental Barriers	Psychological Barriers	Systemic Barriers	Attitudinal Barriers
The use of jargon	Geographic distance	Misperception and misunderstanding	Inefficient information system	Personality conflicts
Physical disabilities (speech difficulties)	Background noise	Emotional disturbances	Inappropriate communication channels	Poor management
Language differences	Uncomfortable setting	Worry and emotional disturbances	Lack of understanding of the roles of communication	Resistance to change
Cultural differences	Very hot or cold room	Fear, anxiety and confused thinking		Lack of motivation

Source: own elaboration.

Communication is generally easier over shorter distances as more communication channels are available and less technology is required. Although modern technology often serves to reduce the impact of physical barriers, the advantages and disadvantages of each communication channel should be understood so that an appropriate channel can be used to overcome the physical barriers.

Even when communicating in the same language, the terminology used in a message may act as a barrier if it is not fully understood by the receivers. For example, a message including a lot of jargon and abbreviations will not be understood by a receiver who is not familiar with the terminology used.

The psychological state of communicator also influences how the message is sent, received and perceived. Anger, self-esteem and stress are examples of communication barriers in fact if someone is stressed he/she may be preoccupied by personal concerns and not as receptive to the message as if they were not stressed.

In structures and organisations systematic barriers may exist especially where there are inefficient or inappropriate information systems and communication channels, or where there is a lack of understanding of the roles and responsibilities for communication. In such organisations, individuals may be unclear of their role in the communication process and therefore not know what is expected of them.

A skilled communicator must be aware of these barriers and try to reduce their impact by continually checking understanding and by offering appropriate feedback. Effective receivers of messages should also attempt to overcome their own attitudinal barriers to facilitate effective communication.

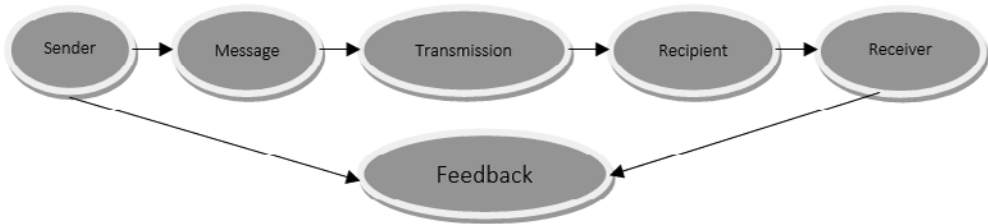
The skills of active listening, clarification and reflection may help but the skilled communicator also needs to pay attention during the sharing of information, avoid feeling of prejudice, resentment and antagonism, consider cultural differences and traditions, values and behaviour.

An effective communicator also understands their audience, chooses an appropriate communication channel, hones their message to this channel and encodes the message to reduce misunderstanding by the receiver.

People often hear what they expect to hear rather than what is actually said and jump into incorrect conclusions. It is, therefore important that the communicator seeks feedback to check that

their message is clearly understood. When two people interact, communication is rarely one-way only. When a person receives a message, he/she responds to it by giving a reply. The feedback cycle is the same as the sender-receiver feedback noted in the Figure 1.

Figure 1. Communication channel



Source: own elaboration.

Otherwise, the sender can not know whether the other parties properly interpreted the message or how they reacted to it. Feedback is the process of ensuring that the receiver has received the message and interpreted it correctly as it was intended by the sender. It increases the effectiveness of the communication as it permits the sender to know the efficacy of his/her message. The response of the receiver can be verbal or non – verbal.

3. Management and communication

Management is the process of reaching organizational goals by working with and through people and other organizational resources. Managers are most likely involved in finding strategies to help your business succeed. Any action taken to reduce inventory waste, for example, would be a strategic management decision aimed at greater efficiency. Efforts to increase productivity and executives share an executive assistant, rather than hiring executives assistants for each executive, would also be included in this category.

For every decision that managers make, you need to set a date in the future when you will measure the effectiveness of those decisions. Management effectiveness can be measured by results. Goals such as market share, improving customer satisfaction ratings and achieving desired revenue levels come under the heading of management effectiveness. Strategic management decision aimed at being effective tend to be goal-oriented because goals are the long-term achievements you have planned and objectives are the short-term steps to your goals.

Effective management and leadership involve creative problem solving, motivating employees and making sure the organization accomplishes objectives and goals. Management functions have long been partitioned into categories *planning*, *organization*, *leading* and *controlling* combined with other functions inside and outside the company, such as *networking*. The planning function controls all the planning that allows the organization to run smoothly. Planning involves defining goals and determining the most effective course of action needed to reach those goals. Typically, it involves flexibility, as the planner must coordinate with all levels of management and leadership in the organization. The organizing function involves developing an organizational

structure and allocating human resources to ensure the accomplishment of objectives. It also controls the overall structure of company and it involves designating tasks and responsibilities to employees with the specific skill sets needed to complete tasks. The leading function goes beyond simply managing tasks; rather, it involves communicating, motivating, inspiring, and encouraging employees towards a higher level of productivity. It controls all the organizing, planning and staffing activity of the company and ensures all activities function together for the good of the organization. Becoming effective at leading, managers must first understand their subordinates' personalities, values, attitudes, and emotions. Then, if managers are effective leaders, their subordinates will be enthusiastic about exerting effort to attain organizational objectives. The managerial function of controlling should not be confused with control in the behavioural or manipulative sense. This function does not imply that managers should attempt to control or to manipulate the personalities, values, attitudes, or emotions of their subordinates. But, this function concerns the manager's role in taking necessary actions to ensure that the work-related activities of employees are consistent with and contributing toward the accomplishment of organizational and department objectives. Controlling involves establishing performance standards and monitoring the output of employees to ensure each employee's performance meets those standards. This process often leads to the identification of situations and problems that need to be addressed by creating new performance standards. The level of performance affects the success of all aspects of the organization.

All of the functions of planning, organizing, leading, and controlling require communication or, quite simply, work will not get done. Communicating clearly is a vital part of optimizing worker – and employer – satisfaction. It produces productive work and performance which ultimately impacts the company's bottom line. Speaking directly is significant because employers can understand what employees are saying and vice versa. In contrast, hesitant, garbled or indirect language can not only create confusion and frustration but keep the intended message from getting through. It is a mistake to think that completing required tasks is enough to stay competitive in a tough job market. The power of well-chosen words, campaigns, award ceremonies and other forms of communication can help employees who remain satisfied at work.

One can never take for granted that the receiver will interpret the message the same way as the sender intended it. Communication is not an absolute, finite thing. To do this effectively, the managers need to consider all the factors like the different realities, the space the communication takes place in, verbal as well as non-verbal messages, and the intended meaning vs the perceived meaning. Therefore, the communication process needs to be efficient and effective.

Effective communication skills are a must for breaking down barriers, which promotes the collaborative atmosphere that an organization needs to thrive, according to "Forbes" magazine. Businessmen and employees with excellent communication skills can effectively contribute to a workplace culture and have a greater impact on customers. These skills are important when collaborating on projects, providing service to customers, sharing ideas in training sessions and participating in other diverse business situations. People who can send and receive messages clearly serve as representatives of a company's brand and are more effective in their jobs.

By going further to communicate more effectively with employees, you can achieve a more efficient, productive and satisfying work environment. Entrepreneurs and employees should practice active listening in their interactions with customers and co-workers. For example, a supervisor who manages a huge number of employees will have a limited amount of time to give directions to each one. If the employees don't attend to their supervisor using active listening,

they will have more questions at the end and waste the supervisor's time, repeating what has already been explained. For this reason, business owners has to build a team of employees who understand how to communicate effectively in groups. Employers want people to clearly express their ideas in group meetings using words, non-verbal expressions and gestures. They also must express their emotions and clarify what they perceive as the thoughts and feelings of others on a team.

Employees need to know that their managers are credible and will follow through on what they say. Management can establish credibility by promising only what they can deliver; admitting when they're wrong; never taking credit for an idea that came from an employee; and never denigrating an employee or their ideas, particularly in front of others. Managers also need to be mindful of their communication styles and aware that their non-verbal signal – everything from how they stand to their facial expressions – indicates an openness and willingness to communicate.

4. Communication in project management

Imagine managing a project without any form of communication. Unless you are producing something on your own and for yourself, it would be wholly impossible because projects are often complicated with various layers of details, requirements, and decisions. Each step often requires a new task to discuss, because it's dependent on another task or decision – or even another person (Macchia, 2009). Sure, you can make it so all of those decisions are funneled through your favorite project management planning tool, but just a plan or a tool will not help you to complete a project successfully. In this context, it is important the role of the project manager who has to use his/her communication skills first, and the tools second.

Communication is an essential tool in the field of project management in fact the success of a project largely depends on the efficiency of its communication network. It starts day one of the venture and continues for the entire life span of the project. It provides regular updates to notify the status of the project as well as its performance capacity. But surprisingly, it has been found that most projects experience a breakdown in communications. It has been said that 90% of a project manager's time is spent communicating what is going to be done but is this communication required in a project work?

The foundation of good project communications starts with building trust with your team, and that is usually done through forming relationships with the team and stakeholders. Those personal relationships are built through conversations that not only focus on the project, its goals, and how you will work together to meet them, but also through personal conversations and interactions. Getting personal conversations such as telling jokes, having some fun, talking about personal interests, home life will help managers to find common ground with the team involved in the project. Of course, the little interactions can help to set the tone for how you will work together, and more importantly, how you as the project managers are deeply interested not only in the project logistics, but the employees involved.

The project manager and the team work together to identify who needs what information. In other words, project management needs to know what the requirements of successful communications are in order to plan on how to achieve those requirements. Based on stakeholder analysis, the project manager and the team can determine the communications that are needed.

There is no advantage of supplying stakeholders with information that is not needed or desired, and the time spent creating and delivering such information is a waste of resources.

As part of the communications planning, the project manager should identify all of the required and approved methods of communicating. Some projects may be highly sensitive and contain classified information that not all stakeholders are privy to, while other projects may contain information that is open for anyone to explore. Whatever the case, the project manager should identify what requirements exist, if any, for the communication modalities.

The project manager may need to be in touch with people in the same location or various other locations in which project work is being performed. It is the project manager's duty to determine how to do this information sharing; he/she could categorize the means of communication.

Information sharing in the current world makes us think of fax machines, e-mails, telephone and other similar tools. How do you know the means of communications and convey what is really required? Videoconferencing is very useful in saving travel costs and e-mail is the most popular communication next to the telephone. People are taught how to use an e-mail system, but are not provided with any guidelines on effective use. For example, to increase the efficiency of communication via e-mail it is crucial to avoid using e-mail for any sensitive topics, to assume that everyone in the company will read your e-mails, to think about what medium to use for communications before you resort to e-mail, make sure that the title of the email is either very specific or very general and avoid using emails to discuss an issue in any depth: e-mails was never intended to be used as groupware.

The best communication is still face-to-face. The project manager can determine the person's body language, the proximity and get their tone and nuances. When verbal communication is involved, the project manager should remember that half of communication is listening so, this means that the project manager must confirm that the receiver understands the message being sent. The confirmation of the sent message can be seen in the recipient's body language, feedback, and verbal confirmation of the sent message. Moreover, in the process of communicating is important not only the content of our communication but other semiotic resources are involved such as the quality of the voice (tone, volume, speed and pitch), the posture, movements, gestures, facial expressions, clothing's, breathing and skin-color changes.

The specifics of communication, including the method and frequency, vary depending on the project's needs. Understanding the project communication plan helps a manager realize the plan's goals. As the project manager, you want to set the tone for all communication concerning the project. This allow you to maintain control of the project and ensure all stakeholders receive the necessary information. If some stakeholders are not informed of changes, you risk mistakes or delays in the project work.

Regular communication allows the employees working on the project to remain productive. When they are kept in the loop on project happenings, employees will feel more comfortable with their duties. They are equipped with the necessary information to keep working rather than stopping frequently to seek out information they are missing. The employees are also better able to work together with proper communication, allowing for collaboration and effective performance on the project.

A communication plan enables you as the project manager to lead the team to the desired project outcome. Without proper communication with all stakeholders, you might fail to meet the requirements of the project. You need clear communication from the stakeholders to figure out exactly what they want and need from the project.

5. Conclusion

Communication is the key for success for any project. Project success is dependent on setting clear goals and objectives, agreeing on deliverables and communicating information. Efficient and effective communication is therefore a crucial component to the success of any project. Understanding the importance of communication skills in project management is the first step to successfully managing projects. Strategically choosing the types of communication medium you use will help you communicate successfully. Using a practical model and definition of communication will give you a framework to ensure effective business communication on the projects.

A project manager with good communication skills will amplify the effectiveness of everyone he/she interacts with. This greatly increases the likelihood of his project meeting or exceeding stakeholder expectations.

The planning, managing and controlling communications in project management plays a vital role and must be viewed as one of the cornerstones of managing project successfully.

Bibliography

1. CommunicationTheory.org (2010). Shannon and Weaver Model of Communication. *Communication Theory*. Retrieved on 02/12/2013, from: <http://communicationtheory.org/shannon-and-weaver-model-of-communication/>.
2. Craig, R.T. (2017). Definitions and Concepts of Communication. [in:] P. Moy (Ed.), *Oxford Bibliographies in Communication*. New York: Oxford University Press.
3. Froehlich, I. (2017). Effective Communication Tips For Motivating And Appreciating Your Team. [in:] *Fobes Community Voice*. Jersey City: Forbes Media. Retrieved on 26/06/2017, from: <https://www.forbes.com/sites/forbescommunicationscouncil/2017/06/08/effective-communication-tips-for-motivating-and-appreciating-your-team/#764ab2b76c07>.
4. Halliday, M.A.K. (2003). Introduction: On the “Architecture” of Human Language. [in:] M.A.K. Halliday, *Collected Works, Vol. III*.
5. Kliem, R.L. (2008). *Effective Communications for Project Management*. Boca Raton, FL: Auerbach Publications.
6. Lamond, D. (2004). A Matter of Style: Reconciling Henri and Henry. *Management Decision*, 42(2), 330-356.
7. Macchia, G. (2009). *Project Management. Teoria, Stumenti Attività*. USA: Lulu Press.
8. Rivers, W.M. (1981). *Teaching Foreign-Language Skills* (2nd edition). Chicago: University of Chicago Press.
9. Schramm, W.L. (1963). *The Science of Human Communication*. New York: Basic Books.
10. Schramm, W.L. (1971). Nature of Communication Between Humans. [in:] E.L. Schramm & D.F. Roberts (Eds.), *The Process and Effects of Mass Communication*. Urbana: University of Illinois Press.
11. Sindoni, M.G. (2011). *Systemic-Functional Grammar and Multimodal Studies. An Introduction with Text Analysis*. Como – Pavia: Ibis Editore.

Chapter 8

Internal Corporate Control and Acquisition Performance: A System Dynamics Approach

Jelena Nikolić, Dejana Zlatanović, Slađana Savović

1. Introduction

Mergers and acquisitions (M&A) are important mechanisms through which companies can achieve growth, access to new markets and new technologies. Although companies engage in M&A with optimism, empirical evidence shows that acquisitions often fail to reach their desired potential and generate negative or insignificant returns for shareholders of the acquiring companies. In aiming to discover why some mergers and acquisitions (M&A) have negative effect on performance, researchers emphasize the importance of the agency conflicts between managers and shareholders. Managers may undertake value-destroying acquisitions when trying to achieve personal objectives which are not aligned with shareholder objectives, due to the availability of excessive free cash flows for empire building, as well as due to managerial hubris.

Given the fact that agency conflict can arise when companies make acquisition decisions, it is important to examine the role of internal corporate control in reducing these potential agency conflicts. Therefore, this paper examines the effect of internal corporate control on acquisition performance from the viewpoint of System Dynamics (SD) as a relevant functionalist systems methodology. Specifically, we focus on the role of ownership structure and board of directors as internal mechanisms of corporate control in improving acquisition performance. In fact, the key purpose is to demonstrate how the tools of System Dynamics can help to examine the relations between internal corporate control and acquisition performance.

According to the above mentioned, the paper is structured as follows. Firstly, the key aspects of corporate control mechanisms are presented in order to indicate their relevance for mitigation of the traditional agency problem. Given that ownership structure and board of directors are key internal mechanisms of corporate control, we further analyze their impact on acquisition performance. Relevant theoretical and empirical research findings were the basis for building a System Dynamics' causal loop diagram as a systemic framework for connecting the internal corporate control and acquisition performance.

2. Literature Review

2.1. The key aspects of corporate control mechanisms

As traditional agency problem, the principal-agent conflict is caused by ownership dispersion which reduces the power of shareholders to control managers. This problem can be solved by applying different corporate control mechanisms (Monks & Minow, 2002, p. 92). First, ownership concentration as an internal corporate control mechanism can reduce managerial opportunism. Thus, high ownership concentration allows a good monitoring and effective control of managers. The key benefit from concentrated ownership is the increase in the owners' efficiency of the monitoring capability. However, the basic disadvantage of ownership concentration is the expropriation of the minority shareholders' rights. This means that controlling shareholders have the incentives and power, with a large proportion of voting rights, to pursue their personal interests at the expense of minority shareholders (Liu & Wang, 2013).

Therefore, boards of directors are introduced as an additional internal corporate control mechanism (Babić, Nikolić & Erić, 2011). In accordance with this, effective board control prevents managerial opportunism. Fama and Jensen (1983) find that the board has the power to control managers (agents) by ratifying and monitoring the key strategic decisions. Thus, board role is to mitigate the conflict of interests between owners and managers, through the decision-making in order to increase value for owners (Eisenhardt, 1989). In this way, reducing agency costs increases the company performance as well.

Although the primary focus is on the board and concentration as internal corporate governance mechanism, the lack of owners' control as well as board inefficiency can be compensated by an active market for corporate control through processes of mergers and acquisitions, which play a key role in disciplining managers (Savović, 2012). Thus, the market for corporate control can be seen as the external mechanism of disciplining inefficient management in order to inhibit opportunistic managerial decisions (Shleifer & Vishny, 1997). In this way, the key role of the market for corporate control is reflected in replacing or disciplining managers according to firm-value-maximization. Therefore, it can be concluded that the corporate control mechanisms are interdependent and complementary. This means that the inefficiency of the internal corporate control mechanisms can be mitigated by resorting to external mechanisms of corporate control. In addition to the emphasized complementarity of corporate control mechanisms, the empirical results of numerous studies show that their interdependence has significant implications for the company performance. Thus, the impact of the internal mechanisms of corporate control on the acquisition performance is a particularly important research area.

2.2. Internal corporate control and acquisition performance

In the following considerations, different research results exploring this relationship between the ownership structure and acquisition performance, as well as the links between the board structure and acquisition performance, will be discussed.

2.2.1. Ownership structure and acquisition performance

From the agency perspective, it can be seen that the ownership concentration has a significant impact on improving company performance, due to mitigation of the conflict of interest between managers and owners (Itturalde et al., 2011, p. 118). However, the high level of ownership concentration can become ineffective due to the decisions that are derived from the principle of maximizing value. In the beginning, when the level of ownership concentration increases, the value of the company is growing due to better monitoring. Contrary, when the stake becomes too concentrated, the company value begins to decline. Hence, there is the nonlinear relationship between ownership concentration and company performance as a result of agency costs caused by the high level of ownership concentration (Sánchez-Ballesta & García-Meca, 2007, p. 880). Contrary, moderate level of ownership concentration has positive impact on company performance. Consequently, it is not possible, a priori, to predict the relationship between ownership concentration and company performance, due to the effects of monitoring and expropriation. The meta-analysis of the impact of ownership concentration on company performance demonstrates that this relationship depends on the corporate governance model (Sánchez-Ballesta & García-Meca, 2007). The effects of monitoring and expropriation may also be different depending on the performance measures that were used. Therefore, the research results indicate that the performance measure is an important moderator of the relationship between ownership structure and company performance.

Starting from the above mentioned, it can be concluded that when the controlling shareholder's stake is higher, the ability of obtaining private benefits of control is higher. Therefore, controlling shareholder has a better motivation of profit when his stake is higher (Liu & Wang, 2013). Some studies indicate that the impact of ownership concentration on M&A outcomes is dominantly positive, due to ownership concentration reduces agency problem between managers and owners that may be responsible for adverse M&A outcomes in a large number of cases (Bhaumik & Selarka, 2012). The empirical results by Jaafar and El-Shawa (2009) suggest that ownership concentration has positive impact in determining acquisition performance, as well (Jaafar & El-Shawa, 2009). Although there are empirical evidence that the impact of concentration of ownership on acquisition performance is negative, according to the dual effects of ownership concentration, in the context of transition or emerging economies this impact is dominantly positive. This view is in line with the fact that ownership concentration is the key mechanism of internal corporate control.

Numerous studies investigate the impact of ownership concentration on acquisition performance without giving importance to type of ownership (Yen & André, 2007). However, a few recent studies focus on domestic vs. foreign ownerships and find following results. Although evidence from empirical research on the influence of ownership type on acquisition performance is mixed, more studies show that cross-border acquisition performed better than domestic acquisitions (Danbolt, 2004; Gregory & O'Donohoe, 2014). Harris and Ravenscraft (1991) compare cross-border and domestic acquisitions in the US and conclude that US acquired companies perform better after cross-border than after domestic acquisitions. Danbolt (2004) found that the returns to the acquired company's shareholders were higher for cross-border acquisitions compared to domestic acquisitions. Gregory and O'Donohoe (2014) show that domestic companies fare worse than international companies. These researches emphasize that ownership type is an important factor of acquisition performance and cross-border acquisitions achieved better acquisition performance compared to domestic acquisitions. Foreign acquiring companies are an important source of knowledge

for the acquired companies, because they have significant intangible assets and capabilities such as superior marketing expertise, patent-protected technology, and managerial know-how, which can help achieve better development of the acquired companies.

2.2.2. Board of directors and acquisition performance

In addition to ownership structure, company performance is affected by the board structure. Board structure is evaluated on the basis of three structural variables: board composition (the proportion between external, independent and internal board directors), duality of board chairperson and CEO positions, and board size (Tricker, 2009, p. 61).

According to Zahra and Pearce (1989) effective boards will have higher number of outside directors. Daily and Dalton (1994) highlighted that successful companies tend to have a higher percentage of external directors. Thus, the boards with more independent, non-executive members are more effective, which leads to increased financial performance, due to increased ability to control managers (Johnson et al., 1996). Walters, Kroll and Wright (2007) found positive relationship between outside board members and returns to shareholders. The results of their study showed that higher percentage of independent, outside board members leads to more efficient M&A transactions. Miletakov et al. (2015) found that acquiring companies with more independent corporate boards had significantly higher returns, but this effect was only present in countries with lower levels of investor protection.

In addition to board composition, researchers have studied the impact of separating the chairman and CEO roles on corporate performance (Babić, Nikolić & Erić, 2013). Most studies have found evidence that separation leads to improved corporate performance (Donaldson & Davis, 1991; Rechner & Dalton, 1991). Daily and Dalton (1994) provide evidence that companies have better performance when the board is independent as well as when there is no duality between CEO and chairman. Despite its strategic importance, research on CEO duality and M&A is limited. Based on agency theory, opponents of CEO duality argue that duality structure prevent effective monitoring of managerial decisions. In line with this attitude, “with the presence of CEO duality, M&A decisions will reduce shareholders’ wealth and have negative impact on firm performance” (Phaam, Oh & Peh, 2015). With the same focus on the link between CEO duality and acquisition performance, Desai et al. (2003) find that CEO duality affects performance negatively, supporting agency theory. Based on stewardship theory, proponents of CEO duality, argue that leadership duality contributes to higher use of CEO expertise, as well as to mitigate information transfer costs. In line with the above mentioned, “the presence of CEO duality should increase shareholders’ wealth from M&A and improve firm performance post M&A” (Phaam, Oh & Peh, 2015).

Also, researchers have examined the relationship between board size and corporate performance (Babić, Nikolić & Erić, 2013). Yermack (1996) found that there is an inverse correlation between board size and firm value. The higher number of board members leads to poor communication, allowing limited control of managers’ decisions. In addition, trust and understanding between directors will be reduced (Liu & Wang, 2013). Previous studies have dominantly indicated that small boards are more effective (Yermack, 1996; Berger et al., 1997). Regarding to acquisition performance, majority of empirical studies have demonstrated that small boards are more efficient and effective, as well. The study by Liu and Wang (2013) confirms that board size is negatively related to the long-term M&A performance. It means that smaller boards are more effective in monitoring role, and consequently lead to better company performance.

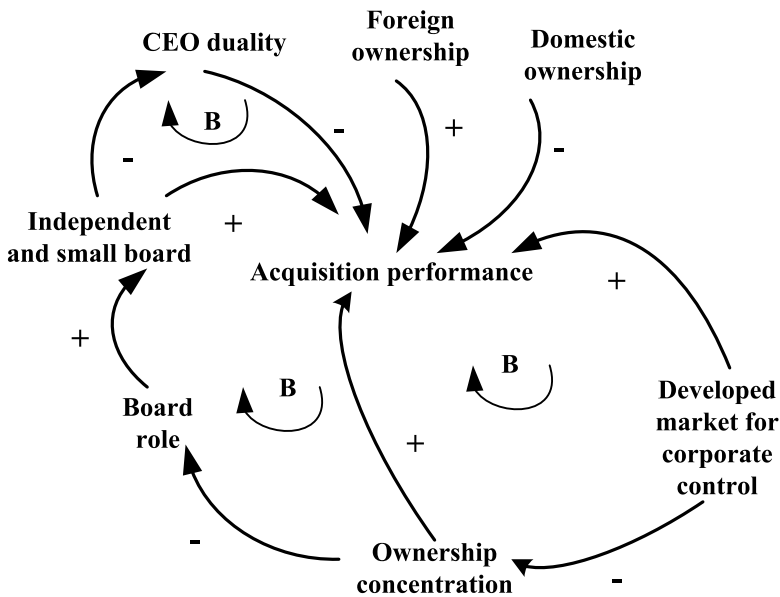
3. Systemic dynamics framework for linking internal corporate control and acquisition performance

Respecting the fact that the aim is to examine the interdependence between internal mechanisms of corporate control as well as the links between these mechanisms and acquisition performance, the causal loop diagrams as the relevant tools of System Dynamics (SD) are used to determine their interconnections. As a relevant functionalist systems approach, SD is based on the theory of information feedback and control (Forrester, 1972). In fact, SD is focused on “the problems that can be modeled as systems, essentially made of different elements and flows, i.e. the relations that create a feedback loop and are represented as continual processes” (Zlatanović, 2012). One of the key assumptions of SD is as follows: system’s behavior is preliminary caused by its structure. SD uses different types of diagrams in representing feedback structures: causal loop diagrams, stock and flow diagrams, structure diagrams and policy structure diagrams (Lane, 2008).

We choose to use causal loop diagrams (CLD) which show the orientation of feedback, as well as the key elements, i.e. variables, and their mutual interaction. Variables are connected by causal links, represented by adequate arrows. Relations that produce change in the same direction (rising or falling) are marked with a positive sign in the causal loop diagram. The positive feedback link means that “if the cause increases, the effect also increases above what it would otherwise have been. Also, if the cause decreases, the effect decreases below what it would otherwise have been. Opposite to that, the negative feedback link means that if the cause increases, the effect decreases below what it would otherwise have been; and if the cause decreases, the effect increases above what it would otherwise have been” (Sterman, 2000, p. 139 after Zlatanović, 2012). Respecting all of the above mentioned, we have chosen to present links between internal mechanisms of corporate control and acquisition performance by the following causal loop diagram – Figure 1.

This diagram can be useful in predicting future behavior, i.e. acquisition performance driven by different internal mechanisms of corporate control. The figure shows the following potential mutual influence of corporate control mechanisms, as well as their influence on acquisition performance. First of all, the following links can be marked as positive: number of outside directors and acquisition performance (the independent boards are more effective in controlling the managers which lead to increased financial performance); ownership concentration and acquisition performance, i.e. when ownership concentration increases, the value of the company is growing due to effective control of managers. Also, the link between developed market for corporate control and acquisition performance is presented as positive, as well as the link between foreign ownership and acquisition performance, while the link between domestic ownership and acquisition performance is negative, as the acquired company’s performance was higher for cross-border acquisitions compared to domestic acquisitions. At the same time, the links between some corporate control mechanisms and acquisition performance are marked as negative, such as: board size and acquisition performance (small boards are more effective), CEO duality and acquisition performance (duality of leadership structure disables effective control of managerial decisions).

Figure 1. Feedback structure representing the links between internal mechanism of corporate control and acquisition performance



Source: own study.

Furthermore, the figure shows the following links between corporate control mechanisms. The link between developed market for corporate control and ownership concentration is marked as negative, i.e. developed market for corporate control decreases the need for ownership concentration as control mechanism. Also, the link between board role and ownership concentration is presented as negative, since the ownership concentration reduces the need for board control. The link between control board role and independent board is presented as positive, while the link between independent board and CEO duality is negative. Taking into account that this feedback structure is consisted of positive and negative links, the loops polarity is marked as negative, i.e. as balancing.

4. Conclusion

Based on the view that ownership structure and board of directors are the key internal mechanisms of corporate control leading to mitigation of agency problem, the impact of these mechanisms on the company performance is subject of many academic studies. However, of particular importance is to explore how they influence acquisition performance. So, we developed a systemic framework for linking the various aspects of internal corporate control and acquisition performance. Consequently, we highlighted the relevance of mutual influence of corporate control mechanisms, and their impact on acquisition performance through causal loop diagram as a relevant tool of System Dynamics.

According to the above mentioned, the contribution of the paper is reflected in introducing a systemic, comprehensive approach to corporate control and acquisition performance which brings together all internal mechanisms of corporate control. Despite this, the paper does not address the issues concerned with different models of corporate governance and performance measures that were used. Another limitation is related to the fact that we have used causal loop diagram as one of the tools of SD to indicate the links between internal corporate control and acquisition performance.

These limitations present the guidelines for future research. On that note, it would be helpful to explore the influence of each dimension of ownership and board structure on different measures of acquisition performance. Actually, presented research can be a basis for creating an appropriate questionnaire which could be distributed to companies in order to examine these issues. These results could be a basis for developing a mathematical model of SD which can be useful in predicting the future behavior of companies performance.

Bibliography

1. Babić, V., Nikolić, J., & Erić, J. (2011). Rethinking the Performance of Board Roles: Toward an Integrative Model. *Economic Annals*, 56(190), 140-162.
2. Berger, P.G., Ofek, E., & Yermack, D.L. (1997). Managerial Entrenchment and Capital Structure Decisions. *The Journal of Finance*, 52(4), 1411-1438.
3. Bhaumik, S., & Selarka, E. (2012). Does Ownership Concentration Improve M&A Outcomes in Emerging Markets? Evidence from India. *Journal of Corporate Finance*, 18(4), 717-726.
4. Daily, C.M., & Dalton, D.R. (1994). Corporate Governance and Bankrupt Firm: An Empirical Assessment. *Strategic Management Journal*, 15, 393-401.
5. Danbolt, J. (2004). Target Company Cross-border Effects in Acquisitions into the UK. *European Financial Management*, 10(1), 83-108.
6. Desai, A., Kroll, M., & Wright, P. (2003). CEO Duality, Board Monitoring and Acquisition Performance: A Test of Competing Theories. *Journal of Business Strategies*, 20(2), 137-156.
7. Donaldson, L., & Davis, J.H. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, 16, 49-64.
8. Eisenhrand, K.M. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*, 14, 57-74.
9. Fama, E.F., & Jensen, M.C. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, 26, 301-26.
10. Forrester, J. (1972). *Industrial Dynamics*. Cambridge, Massachusetts: The M.I.T. Press, Massachusetts Institute of Technology.
11. Gregory, A., & O'Donohoe, S. (2014). Do Cross Border and Domestic Acquisitions Differ? Evidence from the Acquisition of UK Targets. *International Review of Financial Analysis*, 31, 61-69.
12. Harris, R.S., & Ravenscraft, D. (1991). The Role of Acquisitions in Foreign Direct Investment: Evidence from the U.S. Stock Market. *Journal of Finance*, 46(3), 825-844.
13. Iturralde, T., Maseda, A., & Arosa, B. (2011). Insiders Ownership and Firm Performance – Empirical Evidence. *International Research Journal of Finance and Economics*, 67, 118-129.

14. Jaafar, A., & El-Shawa, M. (2009). Ownership Concentration, Board Characteristics and Performance: Evidence from Jordan. [in:] M. Tsamenyi & S. Uddin (Eds.), *Accounting in Emerging Economies*. Emerald Group Publishing Limited.
15. Johnson, J.L., Daily, C.M., & Ellstrand, A.E. (1996). Boards of Directors: A Review and Research Agenda. *Journal of Management*, 22(3), 409-438.
16. Lane, D. (2008). The Emergence and Use of Diagramming in System Dynamics: A Critical Account. *Systems Research and Behavioral Science*, 25, 3-23.
17. Liu, Y., & Wang, Y. (2013). Performance of Mergers and Acquisitions under Corporate Governance Perspective. *Open Journal of Social Sciences*, 1(6), 17-25.
18. Miletkov, M., Moskalev, S., & Wintoki, B. (2015). Corporate Boards and Acquirer Returns: International Evidence. *Managerial Finance*, 41(3), 244-266.
19. Monks, R., & Minow, N. (2002). *Corporate Governance*. Oxford: Blackwell Publishing.
20. Nikolić, J., Babić, V., & Erić, J. (2013). Ownership Structure and Corporate Financial Performance in Serbia: Empirical Evidence. *Actual Problems of Economics*, 9(147), 446-455.
21. Pham, N., Oh, K., & Pech, R. (2015). Mergers and Acquisitions: CEO Duality, Operating Performance and Stock Returns in Vietnam. *Pacific-Basin Finance Journal*, 35, 298-316.
22. Rechner, P., & Dalton, D. (1991). CEO Duality and Organizational Performance: A Longitudinal Analysis. *Strategic Management Journal*, 12(2), 155-160.
23. Sánchez-Ballesta, J., & García-Meca, E. (2007). A Meta-analytic Vision of the Effect of Ownership Structure on Firm Performance. *Corporate Governance: An International Review*, 15(5), 879-893.
24. Savović, S. (2012). The Importance of Post-acquisition Integration for Value Creation and Success of Mergers and Acquisitions. *Economic Horizons*, 14(3), 195-207.
25. Shleifer, A., & Vishny, R. (1997). A Survey of Corporate Governance. *Journal of Finance*, 52, 737-783.
26. Sterman, J. (2000). *Business Dynamics: Systems Thinking and Modelling for a Complex World*. Boston: Irwin McGraw-Hill.
27. Tricker, B. (2009). *Corporate Governance: Principles, Policies and Practices*. New York: Oxford University Press, Inc.
28. Walters, B., Kroll, M., & Wright, P. (2007). CEO Tenure, Boards of Directors, and Acquisition Performance. *Journal of Business Research*, 60, 331-338.
29. Yen, T., & André, P. (2007). Concentrated Ownership and Long Term Operating Performance of Acquiring Firms: The Case of English Origin Countries. *Journal of Economics and Business*, 59, 380-405.
30. Yermack, D. (1996). Higher Market Valuation of Companies with a Small Board of Directors. *Journal of Financial Economics*, 40, 185-211.
31. Zahra, S.A., & Pearce, J.A. (1989). Boards of Directors and Corporate Financial Performance: A Review and Integrative Model. *Journal of Management*, 15, 291-334.
32. Zlatanović, D. (2012). System Dynamics Models in Management Problems Solving. *Economic Horizons*, 14, 25-38.

Chapter 9

Cultural Diversity and Handling Negotiations

Alicja Szczygieł

1. Introduction

Today, most successful companies engage in negotiations. Generally speaking, they serve to reach agreements, which may entail concluding contracts, purchase or sale of products, establishing cooperation or resolving conflicts. Negotiation may be considered both in a broader as well as narrower context.

The latter entails the negotiations proper stage, or conducting business talks. The other refers to the factors which impact decisions made by the parties. In particular, they include: the manner in which talks were prepared, relations between negotiations' participants as well as negotiators' personal and cultural factors (Rządca, 2003, p. 44).

Globalisation processes mean that people representing different nationalities and cultures meet at the negotiating table. Company representatives are often required to travel abroad or host partners from foreign countries, which might give rise to barriers such as use of a foreign language and currency, but they primarily stem from mentality and culture based differences. The way negotiators comprehend and perceive negotiations, make decisions as to where the negotiations are to be held, their attitude to time (e.g. punctuality), conduct during the meeting itself or how they interpret verbal and non-verbal communication are all affected by where they are from. Lack of knowledge within the scope of cultural differences may lead to failure, conflict or remaining oblivious to inappropriate conduct, thus ever more attention is paid to cross-cultural rather than just international negotiations.

The aim of the article is to present the significance of cultural differences in the negotiations process.

2. A definitions of the concept of culture

There are numerous definitions of the concept of culture in literature on the subject (Hofstede, 2000; Kłoskowska, 2011; Fras, 2007; Reber, 2002). In the past, culture was associated with "cultivation" or "refining the mind" (Okoń, 1996, p. 145). According to Reber, culture is a "set of rules, rights, customs and interaction methods" in a group, society or nation (Reber, 2002, p. 330). A. Kłoskowska refers to culture as "actions, the progress of which follows socially

accepted patterns, across all aspects of human life as well as the outcomes and subjects of such actions” (Pacholski & Słaboń, 2010, p. 106).

Based on their review of the concept of culture, A.L. Kroeber and C. Kluckhohn concluded that there are aspects on the basis of which definitions may be grouped into: descriptive – enumerative, historic, normative, psychological, structural and genetic (Kłosowska, 2011, p. 21).

Descriptive – enumerative definitions list various aspects of culture. We can use the approach proposed by E. Taylor, who considered that “Culture, or civilisation, is that complex whole, which includes knowledge, beliefs, arts, morals, law, customs, and any other capabilities and habits acquired by a human as a member of society” (Kłosowska, 2011, p. 21).

Historical definitions emphasise traditions, whereas normative definitions compliance with standards. An explanation presented by S. Czarnowski is an example of the former: “Culture is a collective good and a collective achievement, the fruit of a creative and a processing effort of countless generations (...). Culture constitutes all objectified elements of social achievements, common to a series of groups and on account of their objectivity, determined and able to expand spatially” (Pacholski & Słaboń, 2010, p. 106).

Under a normative approach, A.L. Kroeber defines culture as a “habitually adopted way of acting, feeling and thinking, selected by the society amongst an infinite number and variety of potentially viable ways to be” (Pacholski & Słaboń, 2010, p. 106).

Psychological definitions highlight the learning and habit creation processes which shape culture (Kłosowska, 2011, p. 22).

Structural definitions focus on “the overall character of cultures and their interrelations” (Kłosowska, 2011, p. 22), whereas genetic definitions on “explaining the origins of culture, its confrontation with nature, its character as a product of human social interactions” (Kłosowska, 2011, p. 22).

On the basis of aspects highlighted by the authors of the described classification, R. Linton considered culture to contain “two human behaviours and objects constituting the outcome of these behaviours” (Kłosowska, 2011, p. 23).

Hofstede stated that culture “does not only contain sublime actions, but also an entire range of ordinary, everyday behaviours, such as the way people greet one another, showing or hiding emotions, how people eat, maintain a physical distance with respect of others” (Hofstede, 2000, p. 39). He presented four cultural differences: symbols, heroes, rituals and values (Hofstede, 2000, pp. 43-44).

Symbols are “words, gestures, images or objects which have a particular meaning” for a given culture and are recognisable by it. These include attire, language, jargon, flag or status symbols. Symbols change and are replaced by other symbols, sometimes borrowed from other cultures. For example, foreign origin words which are commonly used in Poland. Briefings, businessmen, meetings or lunch are just some such examples.

Heroes are “contemporary or historical figures, real or imaginary” which possess characteristics constituting behaviour models for a given culture, such as Zawisza Czarny or John Paul II.

Rituals are “collective activities” which constitute habits within a culture. For example these include greetings, way to conduct business talks, religious ceremonies, the hand shake and its duration.

Values are the most important part of culture, which are defined as “the tendencies to make certain choices”. They are associated with positive or negative emotions e.g. good – bad, rational – irrational.

According to Hofstede, symbols, heroes and rituals can be seen, whereas their interpretation is difficult and possible for individuals from a given culture.

3. Types of cultures vs. handling negotiations

The culture which the negotiators are from determines their behaviour during the negotiating process. Literature on the subject presents this process as a sequence of mutual actions taken by the parties representing partially convergent and partially divergent interests, with the aim of reaching a beneficial resolution to a conflict (Nęcki, 2000). Negotiations are also understood as a communication process engaged in by partners “when they expect an agreement to be more beneficial than acting without an agreement” (Dąbrowski, 1990, p. 11). Interpersonal communication comprises both verbal and non-verbal communication, such as gestures, maintaining eye contact, facial expressions, physical distance or attire of the parties. The cultural diversity represented by the partners makes effective talks more difficult, as each of the parties will interpret the behaviour and habits of the participants differently, which might make it more difficult to conclude the negotiations. “In such situations a thorough knowledge of the partner’s national culture (the significance of concepts, gestures, etc.) and the ability to intuitively work out a convenient channel for mutual communication which takes into account the values and standards of the given cultures are essential” (which, more often than not, is no easy task) (Zederowski & Koziński, 2017, p. 24).

On the basis of his own research, Hofstede (2000, p. 51) identified four basic dimensions of cultures which impact the way people behave. These are:

- power distance (from small to large) – attitude towards social inequalities,
- collectivism and individualism,
- femininity and masculinity,
- uncertainty avoidance (from weak to strong).

Particular cultures and their significance for conduct of negotiators are discussed in the subsequent section.

3.1. Power distance

According to the author of the concept, power distance refers to the “the extent to which the less powerful (subjects) members of organizations and institutions accept and expect that power is distributed unequally” (Hofstede, 2000, p. 67). Cultures which exhibit a large distance attach importance to power, roles, positions. The society pays attention to education, profession, academic and job titles. In countries with a large distance people “see power as a significant part of social life” (Mikula & Pomorski, 1999, p. 111). In professional relations, recognition of the dependence between a subordinate and a superior is desired. Subordinates respect and fear superiors, and this do not contest them directly and only maintain professional rather than partner based relationships with them.

On countries with a small power distance, workers are treated equally, regardless of their job titles. Subordinates do not feel dependent on their superiors, whom they treat like friends. At work, there is no problem with expressing objections or contrary opinions. There is a need to conduct consultations.

Countries with large and medium power distances include those where Romance languages such as Spanish, Portuguese, French and Italian are used as well as Asian and African countries. Small power distance countries include those which use Germanic languages, i.e.: German, English, Dutch, Norwegian and Swedish. In particular these countries include The United States and Great Britain. Poland belongs to the medium distance group cultures (Tab. 1).

Table 1. Countries with large, medium and low power distances

Power distance	Countries – examples
High distance of power	Malaysia, Guatemala, Panama, Philippines, Mexico, Venezuela, Arab countries, Brazil, France.
Medium distance of power	Brazil, France, Turkey, Belgium, Chile, Portugal, Greece, Spain, Japan, Italy.
Low power distance	Austria, Israel, Denmark, New Zealand, Ireland, Sweden, Norway, Finland, Switzerland, United States, United Kingdom.

Source: own work based on: (Hofstede, 2000, p. 65).

In preparing for international negotiations, the aspect in question should be taken into account and particular caution should be observed towards persons representing a larger power distance culture. In order to establish good relations, a delegation should comprise persons with appropriate job titles or academic titles equivalent to those held by partners from the given culture. The negotiations process with a delegation (from the culture in question) may become extended in time for various reasons. One is a strong urge to consult many decisions with superiors, as these will not be made independently by persons representing the company and engaged in direct talks. Following a meeting the final decision as to signing agreements is often made by representatives of the given organization's top tier. Failure to delegate the decision making authority, markedly affects the time within which business talks can be completed.

3.2. Collectivism and individualism

Collectivist societies favour the good of a group over the good of an individual (Hofstede, 1999). An employer requires employees to conform to the interests of the whole (team) even in situations, when they are unfavourable for the individual. Professional duties are significantly more important than private life. Family relations are valued at work and people from amongst one's own circles are preferred. In collectivist societies people follow values professed by the group which they are part of and share common opinions.

In individualistic societies "the good of an individual is favoured over and above the good of a group" (Hofstede, 1999, p. 96). Preferred values include "self-fulfilment, freedom of choice, an individual's right and autonomy" (Kendlik, 2009, p. 27). Employers pay attention to the individual needs of subordinate staff. They are afforded a lot of freedom when it comes to making their own decisions. Companies employ staff in accordance with their abilities and nepotism is frowned upon.

"Most countries with a high power distance index have a low individualism index and vice versa, most countries with a low power distance index have high individualism" (Hofstede, 1999, p. 101). See Table 2 for examples of countries taking into account the culture in question.

Table 2. Countries with high, medium and low individualism index

Individualism	Countries – examples
High individualism	United States, Australia, Great Britain, Canada, Netherlands, Italy, Belgium, Denmark, Sweden, France, Ireland, Switzerland, Germany.
Medium individualism	Austria, Israel, Spain, India, Japan, Argentina, Jamaica, Brazil, Greece.
Low individualism	Guatemala, Ecuador, Panama, Venezuela, Colombia, Peru, Costa Rica, Taiwan, Singapore, Colombia.

Source: own work based on: (Hofstede, 2000, p. 100).

If deciding to conduct negotiations with partners from collectivist culture countries, take into account the time used to establish good relations and to get to know each other. Spending time together, unofficial conversations taking place before the meeting proper constitute the basis for building trust and becoming familiar with the habits, standards and rules of the group which the given negotiator is part of. The actual business talks begin can only once the necessary information is gathered and approved by the collectivist environment. Sometimes and intermediary is sought, who will help in the introduction process. It is important to remember this as in societies representing this culture, attention is mainly paid to friends or acquaintances and not impersonal company representatives. Personal relations are more important than the outcome of the talks. Negotiators representing a collectivist culture expect, and are willing to maintain relationships struck during business talks even after their conclusion. Thus, it is not beneficial to make personnel changes in a negotiating team which has already been accepted by the partners. This also applies to persons who will be their points of contact. Any changes to the already established relations may result in talks breaking down and the need to start again (Witaszek, 2007). It is advisable to mention during talks that common good is one of the objectives.

For in individualist cultures skills of the persons taking part in negotiations play a significant part rather than their group or family affinity, that is why it is not necessary to devote so much time to building mutual relations, which also include the environments of their origin. One should bear in mind that a negotiator will conduct talks in a matter of fact and direct manner right from the outset, which might surprise and confuse an unprepared team.

3.3. Femininity and masculinity

“Masculinity is a trait of societies, where social roles associated with sex are clearly defined, that is men are expected to be assertive, hard and oriented towards material success, whereas women are expected to be modest, sensitive and caring. Femininity is exhibited by societies where the social roles of both sexes mutually overlap, that is modesty, sensitivity and care are expected from both men and women” (Hofstede, 2000, p. 140). In predominantly feminine countries, compromise and negotiations are the tools of choice for resolving conflicts. In moderately feminine countries, open verbal conflicts may sometimes take place between employers and employees, nevertheless continued cooperation is desired despite a difference of opinions. In masculine countries conflict are resolved by a power confrontation (Hofstede, 2000, p. 153).

People from a masculine society believe that:

- a man should rule and a woman should bring up children,
- a man should dominate in society,

- money and objects are of importance,
- ambitions is the basis for action,
- performing roles in accordance with expectations is important.

Opinions prevalent in a feminine society:

- a man does not always have to be right,
- quality of life is desired,
- man and the natural environment are important,
- one should sympathize with people in need,
- equality between the sexes is desired (Mikuła & Pomorski, 1999, pp. 117-118).

Today the situation in many countries is changing. Women are becoming more active, they are taking on masculine roles, are ambitious and are looking for managerial positions. “In general, women with major professional ambitions are more prevalent in masculine societies”, whereas quantitatively they constitute a similar group of women in feminine societies (Hofstede, 2000, p. 158).

Highly feminine countries include Sweden, Norway, The Netherlands, Denmark but also Portugal, Chile, France, Spain, Great Britain and Poland.

Japan, Austria and Italy represent profoundly masculine cultures. Latin American countries such as Venezuela, Mexico and Columbia (Tab. 3) also represent a high masculinity index.

Table 3. Countries by division into cultural aspects: masculinity and femininity

Cultural aspects: masculinity and femininity	Countries – examples
Male culture	Japan, Austria, Venezuela, Italy, Switzerland, Mexico, Jamaica, United Kingdom, United States, Australia.
Indirect cultures	Brazil, Singapore, Israel, Indonesia, Turkey, France, Spain.
Female culture	Sweden, Norway, Netherlands, Denmark, Costa Rica, Finland, Chile, Portugal, Thailand.

Source: own work based on: (Hofstede, 2000, p. 142).

Negotiations in feminine countries may often be geared towards cooperation or compromise, whereas in masculine countries towards rivalry and mostly hard. “A masculine attitude is exhibited by assertiveness and a win – lose relation. A feminine attitude may entail a larger propensity to make concessions on the basis of empathy” (Witaszek, 2007, p. 106). In putting together a negotiating team, take into account both the skills of the negotiators as well as their sex. An all-female negotiating team may be considered to be a sign of disdain by representatives of a country with a higher masculinity index, which will definitely not contribute to talks in a friendly atmosphere.

3.4. Uncertainty avoidance

Uncertainty avoidance is the “degree of danger experienced by members of a given culture when faced with new, unknown or uncertain situations” (Hofstede, 2000, p. 181). In countries with a high uncertainty avoidance index there is a need to regulate many matters using provisions, standards, laws and regulations. In countries with a low index, formalisation is scoffed at (Hofstede, 2000, p. 191). Laws are only created where necessary.

In societies with a high uncertainty avoidance index staff pay a lot of attention to time, as “Time goes by quickly and time is money” (Hofstede, 2000, p. 191). In societies with a low uncertainty avoidance index, employees work intensively for a period, but also remember about their time off, which they take full advantage of. They do not constantly monitor the time (by frequently looking at their watch) as they consider time to be for them and not vice versa.

Societies with a high uncertainty avoidance index do not like changes, avoid competing, are more risk averse, all rules and regulations are important for them.

Societies with a low uncertainty avoidance index show restraint when it comes to extrovert emotions, accept people with different points of view and would revert to fair play to resolve conflicts and competitions. People from cultures of this type are more inclined to take risks (Mikula & Pomorski, 1999).

A low uncertainty avoidance index prevails in Latin America, Great Britain, The United States, Denmark, Sweden and Japan. Greece, Belgium, Japan, France, Spain and Portugal are some examples of countries with a high uncertainty avoidance index (Tab. 4).

Table 4. Countries with high, medium and low avoidance of uncertainty

Avoiding uncertainty	Countries – examples
High avoidance of uncertainty	Greece, Portugal, Guatemala, Uruguay, Belgium, Japan, Peru, France, Chile, Spain, Turkey, Brazil, Israel.
Medium avoidance of uncertainty	Italy, Austria, Germany, Switzerland, Netherlands, Australia.
Low avoidance of uncertainty	Singapore, Jamaica, Sweden, Ireland, United Kingdom, India.

Source: own work based on: (Hofstede, 2000, p. 180).

Representatives of cultures with a high uncertainty avoidance index strive to create foreseeable situations, regulated by rules defining appropriate conduct. During negotiations, this primarily comes to the fore through ritual behaviours and strictly defined rules and procedures. “Representatives of cultures which accept a higher uncertainty may encounter a lack of trust from parties which avoid uncertainty” (Witaszek, 2007, pp. 106-107). That is why when commencing talks, it would be beneficial to let the other side get to know you, to present your company and yourself in great detail, and to spend more time on preliminaries before commencing negotiations proper. To help achieve expected outcomes of the negotiations, present your arguments in a patient and calm manner, without excessive pressure, which might cause the other party to become anxious (Kendlik, 2009).

Attitude towards time may be reflected in punctuality, which will be more important for representatives of countries more likely to avoid uncertainties. Whereas people representing companies with a low uncertainty avoidance index may be more lax in their attitude towards the time for starting and ending talks or the duration of scheduled breaks during talks as well as the boundaries of the entire negotiations process.

4. Conclusion

Becoming familiar with and understanding cultural differences will help in better and more effective preparations for business negotiations. The cultural origin affects peoples’ behaviour, which is further reflected in the way negotiating objectives are perceived, verbal and non-verbal

communication is used and in reactions to the encountered circumstances. Some negotiators consider concluding a contact to be the objective, and thus will quickly drive towards its attainment (e.g. the Americans), and for others building good relations is important and they might designate significantly more time for this phase (e.g. negotiators from Asia). Persons from larger power distance cultures will use formal phrases, professional and academic titles during negotiations. Whereas an American will be willing to address you very directly and by your first name right from the outset, as they have been brought up in a small power distance culture. They are also less likely to pay attention to official dress codes and will not hesitate to take off their jackets or roll up their sleeves as they see fit. Japanese negotiators may see excessive openness as lack of respect towards themselves and the company which they represent. Persons from cultures which exhibit a larger propensity to delegate decision making authority may be surprised when they arrive for talks in China for example and are faced by a ten man delegation which has to consult its positions (Salacuse, 2004).

Knowledge pertaining to cultural diversity contributes to a more conscious negotiations process, which takes into account tactical moves reflecting the other party's culture. On the one hand a broader approach to the subject will facilitate satisfactory business talks, whilst on the other will prevent unnecessary mistakes stemming from different perceptions of the same situation. These include anticipating and designating more time for the negotiating process, which has to take into account a period for getting to know one another or the group, which the future negotiator is a part of. Consolidating internal discipline, when the subjects on the table apply to the business matters at hand or quick reactions and a shift to short, matter of fact negotiations, which have to end at the scheduled time. Preparing an appropriate negotiating team which takes into account the sex, academic and professional titles, or designated one, but person for the negotiations but from the top echelons of the business and decision structure. In conducting business negotiations, one cannot forget that the behaviour of a person is not solely determined by their origin. It also depends on their personality, psycho-physical well-being, resilience to stress as well as many other factors – hence no one is able to fully foresee the events which will take place at the negotiating table.

Bibliography

1. Hofstede, G. (2000). *Cultures and Organizations*. Warszawa: PWE.
2. Kendik, M. (2009). *International Negotiations*. Warszawa: Difin.
3. Kłoskowska, A. (2011). *Mass Culture*. Warszawa: PWN.
4. Okoń, W. (1996). *New Pedagogical Dictionary*. Warszawa: "Żak".
5. Pabian, B. (2013). *Introduction to Knowledge about Culture*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
6. Pacholski, M., & Słaboń, A. (2010). *Glossary of Sociological Concepts*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
7. Reber, S. (2002). *Dictionary of Psychology*. Warszawa: SCHOLAR.
8. Rządca, R. (2003). *Negotiations on Business*. Warszawa: PWE.
9. Tabernacka, M. (2009). *Negotiations and Mediation in the Public Sphere*. Warszawa: Wolters Kluwer Poland.

10. Witaszek, Z. (2007). The Cultural Conditioning of the Negotiations and the Rules of their Conduct. *Scientific Journal of the Naval Academy Year XLVIII*, 1(168), 101-119.
11. Zederowski, R., & Koziński, B. (2017). *Cultural Differences in Business*. Warszawa: CeDeWu.
12. Salacuse, J.W. (2004). *Negotiating: The Top Ten Ways that Culture Can Affect Your Negotiation*. Retrieved on 31/05/2017, from: <http://iveybusinessjournal.com/publication/negotiating-the-top-ten-ways-that-culture-can-affect-your-negotiation/>.

Chapter 10

Balanced Scorecard Framework for Developing Decision Support System Models in E-Supply Chains¹

Zora Arsovski, Dragana Rejman Petrović

1. Introduction

In order to improve organization business performances, especially performances of supply chains they are involved in, it is necessary that organization develop and integrate appropriate performance measurement system as a decision support systems (DSS). It is necessary that organizations within supply chains continuously improve customer and suppliers relations, through the improvement of data, information and documentation interchange and business activities coordination within supply chains. The interchange of resources mentioned above, require support of information and communications technologies (ICT), and business processes key performance indicators (KPI) tracking implies development of decision support systems.

The aim of this paper is development of decision support system prototype in order to create more efficient performance measurement system, through the set of quality and quantity measurements as assessment tools for key aspects of supply chain level in automotive industry related with on time delivery of defect free products and services to the customers on agreed price.

Within the developed prototype of decision support model, the authors have designed strategic BSC system of four perspectives (finance, customer, internal and development) as a frame for development of decision support systems. The prototype enables monitoring and improvement of suppliers KPIs and organizations' deliveries to the customers in all four balanced scorecard (BSC) perspectives integrated on supplier chain level.

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2. Background

Electronic supply chain management (e-SCM), as a specific form of inter-organizational system, is a major strategy for creating competitive advantage (Gunasekaran & Ngai, 2004; Trkman & McCormack, 2010). Implementation of e-SCM concept between business partners is crucial to effective integration of products/services and building long-term relationships between organizations in the supply chain (SC). In the era of the Internet, organizations face a more complex and competitive environment than ever before. Supply chain management (SCM) in the broadest sense allows for effective coordination of materials, products, delivery, payment, and information flow between organizations and business partners (Ruiz-Mercader, Merono-Cerdan & Sabater-Sanchez, 2006; Swanson & Ramiller, 2004). Information and communication technology (ICT) support is imperative for SCM (Gunasekaran & Ngai, 2004; Lancioni et al., 2000; Wu & Chuang, 2010). The essence of the SCM concept lies in the integration of intraorganizational and interorganizational activities, so as to build strategic relations with customers, suppliers, and other business partners (Moyaux et al., 2010). Given that supply chains involve three flows, product flow, cash flow, and information flow, their coordination, synchronization, and optimization requires communication, cooperation, and exchange of large amounts of critical information between organizations in the supply chain, with the support of appropriate ICT (Gunasekaran & Ngai, 2004; Rai et al., 2006).

A very important part of SCM is measuring supply chain performance, and since the SCM concept has a very complex and large structure, performance measurement is very difficult. Area of performance in the supply chain has been widely covered in literature (Gunasekaran et al., 2004; Gunasekaran & Kobu, 2007; Thakkar, 2009; Brewer & Speh, 2000; Holmberg, 2000; Aitken et al., 2003; Gimenez & Tachizawa, 2012; Bai et al., 2012; Bai & Sarkis, 2012; Genovese et al., 2013; Koh et al., 2007; Cabral et al., 2012; Saad & Patel, 2006; Vereecke & Muylle, 2006; Shepard & Günter, 2005).

One of the most important systems for measuring the performance of organizations and supply chains is BSC. BSC is a strategic performance management approach and system, used by organizations for the realization of their visions and strategies (Kaplan & Norton, 2001a, 2001b, 2001c, 2004a, 2004b, 2004c, 2004d, 2006). It has been widely applied in a variety of business industries, such as customer relationship management (Kim et al., 2006) and SCM (Brewer & Speh, 2000). The present work shows the possibility of connecting BSC with the management information system and the development of a prototype system to support strategic management. Design and development of custom decision support system that integrates multiple dimensions in a BSC can become a powerful tool in the management of complex decision-making processes. The use of such a management information system allows collecting, updating, and storing important information and business analytics by perspectives.

3. Balanced scorecard framework for developing decision support system

The basic idea of the BSC model was set by Kaplan and Norton, who point out that performance measurement is too focused on financial performance measures, and that performance measurement systems affect various aspects of management's operational perception and employees' behavior in the organization, so that traditional financial performance measures cannot

give a holistic view of the organization's performance. The essence of this model is that financial measures are important, but they must be supplemented by other measures that are used to predict future financial success.

Organizations need to translate their strategies into logical architecture of strategy maps and BSC. Strategy maps are developed from the top down. The first step is to revise the mission statement of the organization, which develops into its strategic vision. Vision gives a clear picture of the overall objective of the organization, which represents the destination to be arrived at using strategy. Objectives and measures of each BSC perspective should be linked to the appropriate questions, in the context of:

- Financial perspective: What is the organization's relationship to its owners?
- Customer perspective: What is the organization's relationship to its customers?
- Internal process perspective: Which process is crucial and must be improved?
- Learning and growth perspective: How will the organization maintain its main advantage?

Starting from the basic structure of BSC, authors of this paper expand it with the SCM domain and define strategic map and objectives within the perspective, and then identify KPIs to be measured.

3.1. BSC framework – objectives and strategy map

The developed model for measuring and improving business process performance in e-supply chains is based on the BSC model, in order to provide a comprehensive framework for measuring performance at the strategic, tactical, and operational level. Each member of the supply chain applies BSC model, which, at the strategic level, involves making strategic map, as well as measuring performance based on KPI defined for the processes of supply, sales, and logistics. The model was developed in order to create a more efficient system for measuring performance through a set of qualitative and quantitative measures, on the basis of which a key aspect for the supply chain level is estimated, referring to the complete fulfillment of customer orders in terms of quality and just-on-time delivery at the agreed price. Quantitative measures include costs, quality, time, and their calculation relies on easy and direct collection of the relevant data from the existing resource planning system in the organization. Qualitative measures, such as, for example, flexibility, cannot be directly measured, so they need to be transformed into other measurable KPIs, such as on-time delivery and inadequate delivery.

In a model for measuring and improving business process performance in e-supply chains in the automotive industry, the authors establish strategic BSC system with four perspectives (financial perspective, customer perspective, internal process perspective, and learning and growth perspective). Within each perspective, objectives are defined, and causal link between strategic objectives described. Establishing a causal link between the BSC objectives results in the creation of a strategic map. Learning and growth perspective involves the application of e-business concepts in the supply chain, integration of ICT in all business processes, improving skills and knowledge of employees, and the use of web-based ICT solutions. Their use allows for the improvement of business processes of supply, sales, and logistics. The achieved business process improvement is measured within internal process perspective, within which objectives of supply, sales, and logistics processes are defined. The established performance measurement system in this model includes managing the processes of supply, sales, and logistics by measuring KPIs corresponding

to the four attributes, namely quality, costs, flexibility, and delivery. By increasing quality of delivery, reducing costs of delivery, improving flexibility, shorter delivery time, increased customer base, and expanding business with existing customers, depending on their relative importance for each type of supply chain, customer perspective focuses on the desire for the preferred cheaper supplier with product deliveries of the required quality just on time. Achievement of this goal leads to an increase in sales revenues and a decrease in the average costs of available funds, which, in the end, in the financial perspective, results in higher value of the net rate of return (Fig. 1).

3.2. BSC framework – key performance indicators by perspectives

Forming balance scorecard implies the translation of organizational vision and strategy into efficiency measures, which will be used when measuring the success of their implementation. After creating a strategic map, KPIs are selected for each objective in each of the BSC perspectives. The selection of KPIs also takes into account the above-mentioned questions within perspectives.

Measurement and evaluation of internal process perspective

The developed model was tested on supply chain member organizations in automotive industry and comprised the supplier-organization-customer sequence, which was repeated throughout the supply chain. Bearing this in mind, the developed model becomes applicable to every member of a supply chain.

Target values and requirements in the supply chain are set by OEM, and these requirements are transmitted along the supply chain. This commits each organization in the supply chain to require the same from their suppliers or even set more stringent requirements, and, thus, meet the requirements of their customers, and, therefore, OEM's requirements. In this way, every organization, putting in the effort to achieve the set targets, continuously improves business processes and makes the whole supply chain have better performance.

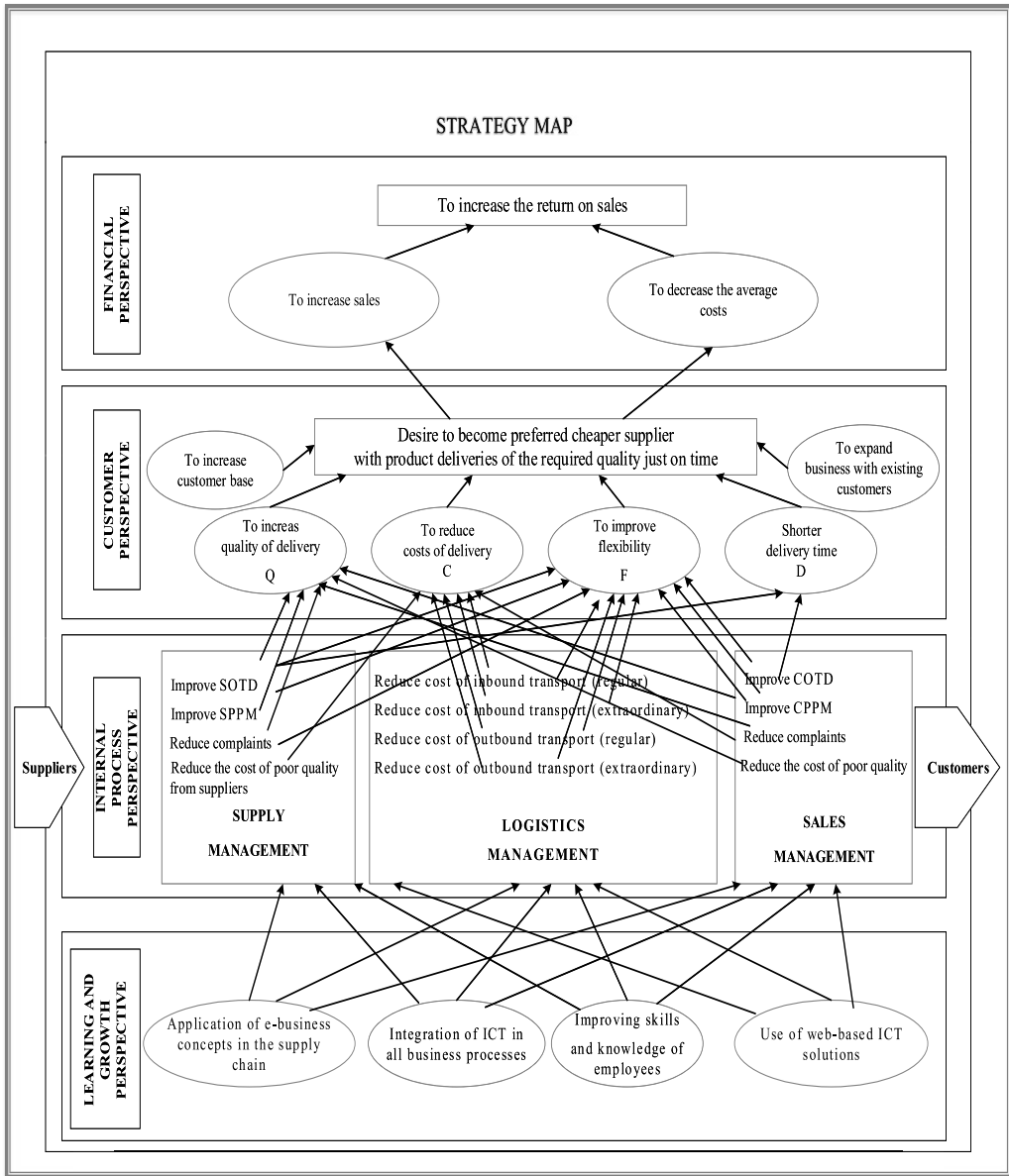
Authors develop a model for measuring and improving business process performance in e-supply chains starting from the four types of supply chains: efficient supply chain, lean supply chain, agile supply chain and hybrid supply chain, and four performance measures attributes: quality, flexibility, cost and delivery.

For performance measurement of supply chains in automotive industry the following KPIs were selected on operative, tactical and strategic level: on time delivery (OTD), discrepant material report (DMR), parts per million (ppm), cost of poor quality (CPQ), cost of inbound transport (CIT), cost of outbound transport (COT) (Rejman Petrović, 2016; Rejman Petrović & Arsovski, 2016).

The priority of the listed measure attributes varies depending on the supply chain type. To measure the performance of the efficient supply chain the first priority was assigned to the attribute of costs, more specifically transportation costs. For the agile supply chain the first priority was given to the delivery attribute. When it comes to a lean supply chain, priority was given to quality and cost, while for the hybrid supply chain quality and delivery were priorities.

Within this perspective, in the measurement and evaluation of KPIs, problem is described and structured, and a multiple-criteria analysis AHP model set up. AHP multiple-criteria analysis and decision-making model and weight coefficients determined for the established criteria give KPI priorities, weights for each KPI, which allows for the monitoring and analysis of each individual KPI. Also, the model allows for the simulation of a set of KPIs, characteristic for a certain type

Figure 1. Strategy map

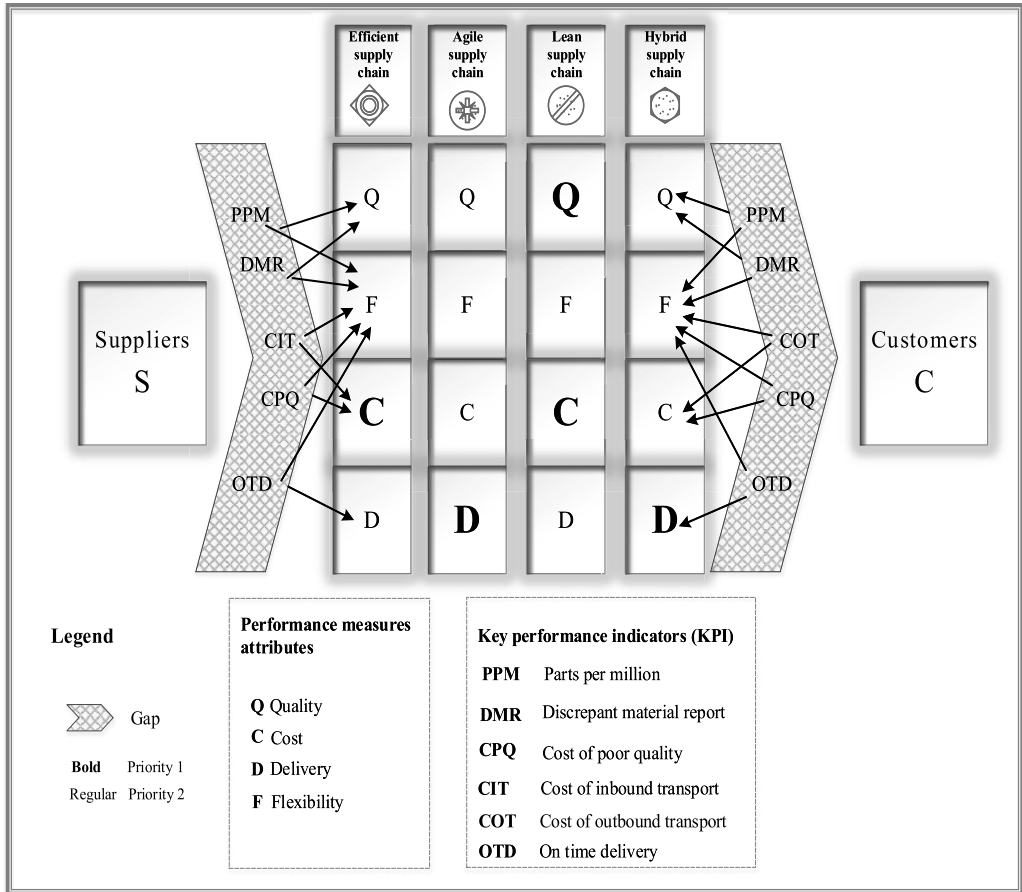


Source: own elaboration.

of the supply chain. The developed management support system is linked with AHP method, as a decision support system, and business processes in e-supply chain improved.

Figure 2 shows performance measurement model for different supply chains with corresponding priorities of measure attributes and defined KPIs (Arsovski et al., 2016).

Figure 2. Performance measurement model for different supply chain types



Source: own elaboration.

Measurement and evaluation of customer perspective

Organization in the supply chain must always keep in focus other organizations having the role of its customers in the supply chain. By evaluating quality, flexibility, costs, and delivery time, and with reference to KPI information on the customer side within the internal process perspective, organization comes to important indicators of how its customers see it and evaluate it, i.e. its rating as a link in the supply chain. Through careful analysis of the customer perspective, the organization is able to focus on the external environment and identify, understand, and respond to the needs and requirements of its customers. In this way, the organization is continuously improving its

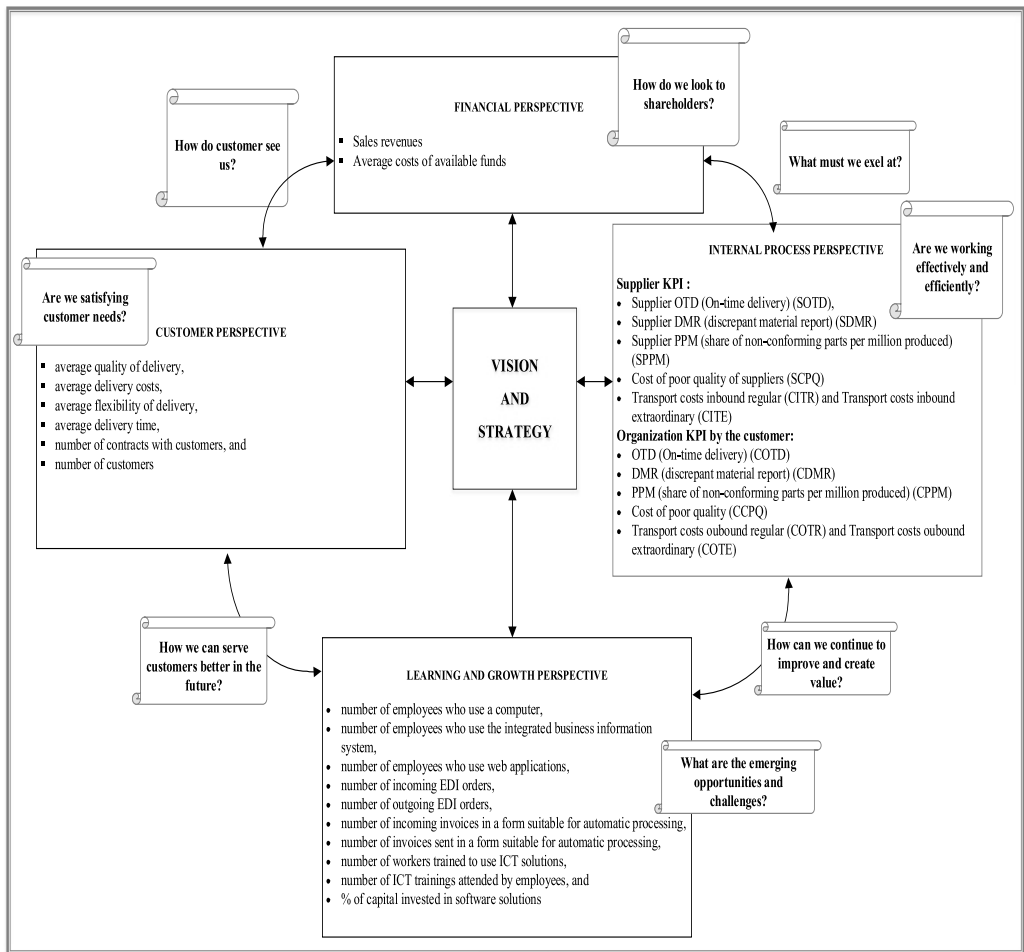
performance in the supply chain. Within the developed BSC customer perspective, the following KPIs are defined: average quality of delivery, average delivery costs, average flexibility of delivery, average delivery time, number of contracts with customers, and number of customers.

Measurement and evaluation of financial perspective

Analysis of the financial perspective allows for the monitoring of the implementation and realization of strategies and goals through financial indicators. Through financial perspective, organizations monitor and evaluate costs and profit of organizations. Within the developed BSC financial perspective, sales revenue, average cost of available funds, and net rate of return are defined as the KPIs to be monitored, because KPIs from previous perspectives directly reflect on them.

After a detailed analysis of perspectives, a BSC framework is created (Fig. 3).

Figure 3. Balanced Scorecard



Source: own elaboration.

This BSC framework is the basis for the development of a prototype decision support model in the field of SCM. The four perspectives of the BSC framework include different KPIs to monitor the achievement of the objective, formulated as a “desire to become preferred cheaper supplier with product deliveries of the required quality just on time”, which will result in higher value of net rate of return. The framework allows for periodic updating of KPIs to always reflect strategic goals. Also, the implementation of the BSC framework allows for KPIs monitoring by perspectives and integrated over time.

3.3. Enhancing Decision Making

Organizational management uses business analytics to enhance the decision-making process, by analyzing very large amounts of data collected and stored about customers, suppliers, employees, business partners, and external business environment.

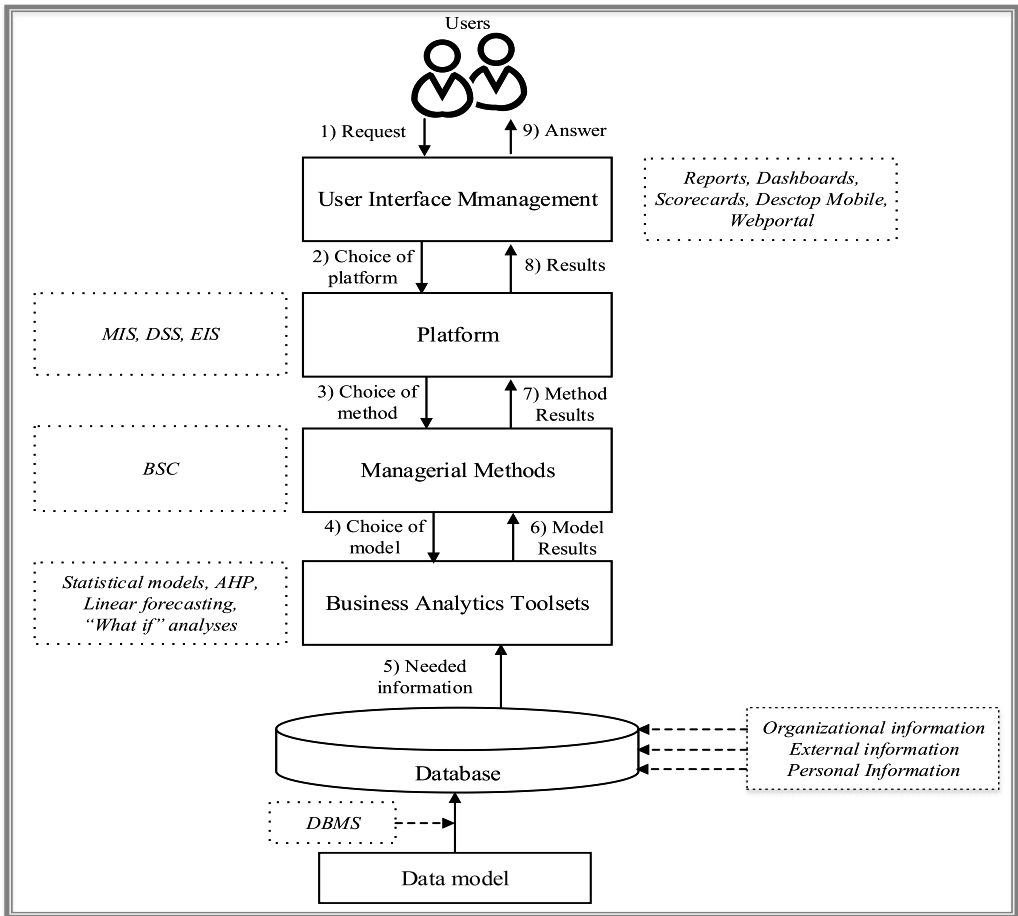
Six hardware, software, and management capabilities that are included in the business intelligence environment (Fig. 4):

- Data from the business environment: Integrating and organizing structured and unstructured data from different sources that managers can analyze and use,
- Business intelligence infrastructure: Database systems that process relevant data stored in transactional databases, data warehouses, or data marts,
- Business analytics toolset: Software tools that managers use to analyze data, create reports, respond to questions, and track their progress using KPIs,
- Managerial users and methods: Business performance management and BSC methods that help managers focus on KPIs and industry strategic analyses,
- Delivery platform – MIS, DSS, and ESS: All the information from MIS, DSS, and ESS are integrated and delivered to the appropriate level of management,
- User interface: Reports, dashboards, Scorecards, Desktop, Mobile, Web portal.

In most cases, operational management receives information from transaction processing systems, but insight into management information system (MIS) is also very important, for a broader view of the organization's performance. Middle-level management also relies on MIS for most of its information, while strategic management relies on MIS and EIS. With the help of these systems, management does not get ready-made decisions, but information to be used together with experience, knowledge, education, and understanding of the organization and business environment as a whole, to make an appropriate decision. Using BSC, management is able to combine internal financial information with additional information from the customer perspective, internal process perspective, and learning and growth perspective. Focusing on the KPIs in each of these areas, management better understands the organization as a whole.

Decision making at all management levels requires data resulting from daily monitoring of organization's operations. Since there is a large amount of data in different places, it is necessary that such information is organized in a database within the information system. It is very important that the database reflects the current state of the business system. The database in this regard is the source of information used in decision-making at strategic, operational, and tactical levels. Such a database is used to create integrated and object-oriented information.

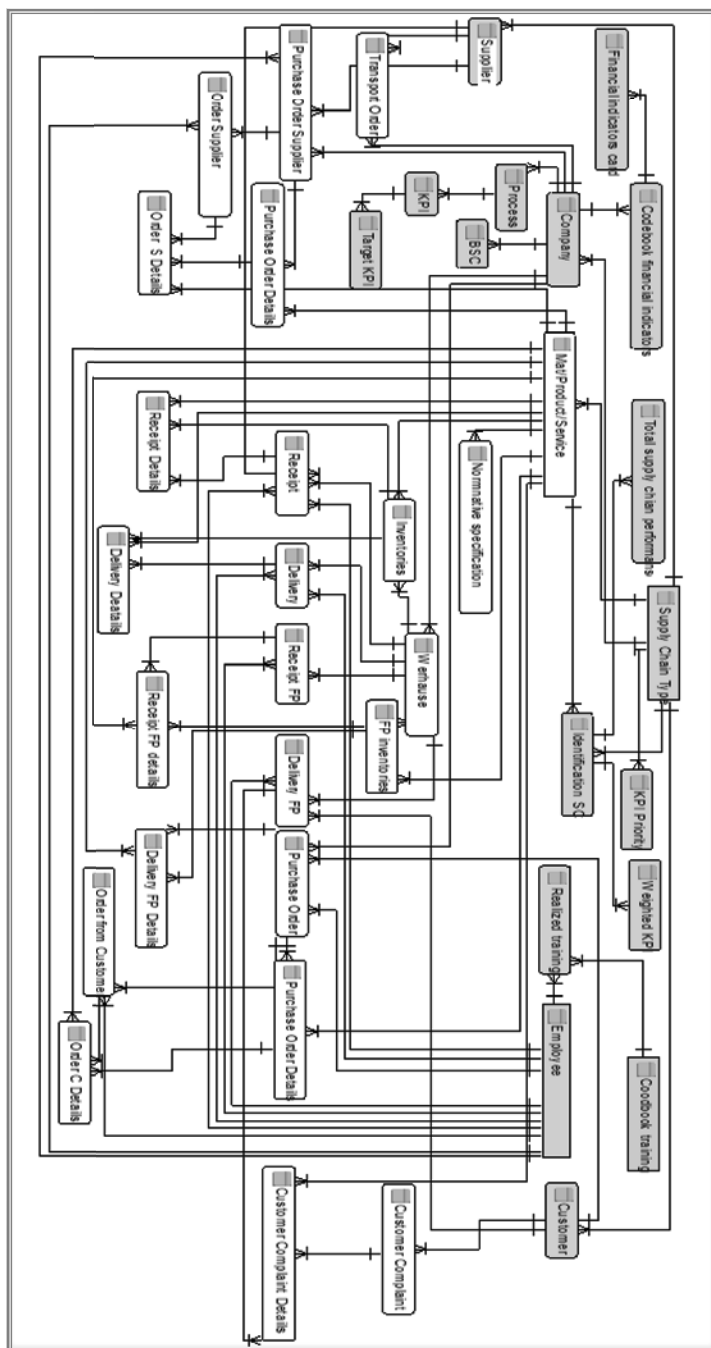
Figure 4. Architecture of the developed decision support model



Source: own elaboration.

When developing a prototype of the decision support system, data modeling process starts with the organization model obtained in the phase of strategic information planning. The data model is developed during the detailed process modeling, analysis of data streams and documents, and identified information needs that are relevant to a specific business area. Logical data model within BSC performance measurement framework in e-supply chains is made using the ER win software tool (Fig. 5). The developed data model forms the basis for the design of a database using the appropriate database management software. The end result is the developed prototype decision-making support system.

Figure 5. Data model



Source: own elaboration.

Developed prototype enables to the management possibility to create:

- predefined reports based on industry specific requirements,
- tables with filter possibilities in order to overview the influence of the specific data,
- user friendly visualization of KPIs reports,
- ad hoc queries and report based on data defined by the users,
- linear forecasting, what-if scenario analysis, and analyze data using standard statistical tools.

The proposed model is dynamic, flexible, and hybrid, and enables continuous improvement of business processes in e-supply chain. The model integrates strategic planning, process thinking, KPI measurement and monitoring in decision support system.

Application of the developed prototype allows the organization's management to optimize KPIs in the business processes of supply, logistics, and sales, in order to achieve better financial results.

4. Conclusion

As decision making supporting tool, supplier chain performance management are more than common reports set. It is integrated set of process, methodologies, metrics and applications design in order to manage performances of the supply chain. In that way organization transfer strategies and targets in to the plans, tracking performances, analyzing gaps between and take corrective actions in order to improvement of supply chain performances. Through the analyze of sensitivity, user is in position to check the output of alternatives and to see the consequents emerges due to alternative factors changes.

Enabling horizontal information flow much easier, this management information system supports vertical information flows helping not only integration of information used in different organizational and management levels within the organization, but in various organization within the same supply chain.

Developed model allows to the management, through the historical and actual data received from internal information systems and external sources, along with AHP and BSC methodology, much better source of information for the decision making process.

Bibliography

1. Aitken, J., Childerhouse, P., & Towill, D. (2003). The Impact of Product Life Cycle on Supply Chain Strategy. *International Journal of Production Economics*, 85, 127-140.
2. Arsovski, Z., Rejman Petrović, D., & Stamenković, M. (2016). Performance Management in E-Supply Chains. [in:] P. Lula & T. Rojek (Eds.), *Knowledge – Economy – Society. Contemporary Aspects of Economic Transformations*. Cracow: Foundation of the Cracow University of Economics.
3. Bai, C., Sarkis, J., Wei, X., & Koh, L. (2012). Evaluating Ecological Sustainable Performance Measures for Supply Chain Management. *Supply Chain Management: An International Journal*, 17(1), 78-92.
4. Brewer, P.C., & Speh, T.W. (2000). Using the Balanced Scorecard to Measure Supply Chain Performance. *Journal of Business Logistics*, 21(1), 75-93.

5. Brewer, P.C., & Speh, T.W. (2000). Using the Balanced Scorecard to Measure Supply Chain Performance. *Journal of Business Logistics*, 21(1), 75-94.
6. Cabral, I., Grilo, A., & Cruz-Machado, V. (2012). A Decision-making Model for Lean, Agile, Resilient and Green Supply Chain Management, *International Journal of Production Research*, 50(17), 4830-4845.
7. Genovese, A., Lenny Koh, S.C., Kumar, N., & Tripathi, P.K. (2013). Exploring the Challenges in Implementing Supplier Environmental Performance Measurement Models: A Case Study. *Production Planning and Control*, 25(13/14), 1198-1211.
8. Gimenez, C., & Tachizawa, E.M. (2012). Extending Sustainability to Suppliers: A Systematic Literature Review. *Supply Chain Management: An International Journal*, 17(5), 531-543.
9. Gunasekaran, A., & Kobu, B. (2007). Performance Measures and Metrics in Logistics and Supply Chain Management: A Review of Recent Literature (1995-2004) for Research and Applications. *International Journal of Production Research*, 45(12), 2819-2840.
10. Gunasekaran, A., Patel, C., & McGaughey, E. (2004). A Framework for Supply Chain Performance Measurement. *International Journal of Production Economics*, 87, 333-347.
11. Gunasekaran, A., & Ngai, E.W.T. (2004). Information Systems in Supply Chain Integration and Management. *European Journal of Operational Research*, 159(2), 269-295.
12. Holmberg, S. (2000). A Systems Perspective on Supply Chain Measurements. *International Journal of Physical Distribution & Logistics Management*, 20(10), 847-868.
13. Kaplan, R.S., & Norton, D.P. (2001a). Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part I. *Accounting Horizons*, 15(1), 87-106.
14. Kaplan, R.S., & Norton, D.P. (2001b). Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part II. *Accounting Horizons*, 15(2), 147-162.
15. Kaplan, R.S., & Norton, D.P. (2001c). *The Strategy-focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*. Boston, MA: Harvard Business School Press.
16. Kaplan, R.S., & Norton, D.P. (2004a). *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*. Boston, MA: Harvard Business School Press.
17. Kaplan, R.S., & Norton, D.P. (2004b). Measuring the Strategic Readiness of Intangible Assets. *Harvard Business Review*, 82(2), 52-63.
18. Kaplan, R.S., & Norton, D.P. (2004c). The Strategy Map: Guide to Aligning Intangible Assets. *Strategy & Leadership*, 32(5), 10-17.
19. Kaplan, R.S., & Norton, D.P. (2004d). How Strategy Maps Frame an Organization's Objectives. *Financial Executive*, 20(2), 40-45.
20. Kaplan, R.S., & Norton, D.P. (2004e). Measuring the Strategic Readiness of Intangible Assets. *Harvard Business Review*, 82(2), 52-63.
21. Kaplan, R.S., & Norton, D.P. (2006). *Alignment: Using the Balanced Scorecard to Create Corporate Synergies*. Boston, MA: Harvard Business School Press.
22. Kim, D., Cavusgil, S.T., & Calantone, R.J. (2006). Information System Innovations and Supply Chain Management: Channel Relationships and Firm Performance. *Journal of the Academy of Marketing Science*, 34(1), 40-54.
23. Koh, L.S.C., Demirbag, M., Bayraktar, E., Tatoglu, E., & Zaim, S. (2007). The Impact of Supply Chain Management Practices on Performance of SMEs. *Industrial Management and Data Systems*, 107(1), 103-124.

24. Lancioni, R.A., Smith, M.F., & Oliva, T.A. (2000). The Role of the Internet in Supply Chain Management. *Industrial Marketing Management*, 29(1), 45-56.
25. Libby, T., Salterio, S.E., & Webb, A. (2004). The Balanced Scorecard: The Effects of Assurance and Process Accountability on Managerial Judgment. *The Accounting Review*, 79(4), 1075-1094.
26. Moyaux, T., McBurney, P., & Wooldridge, M. (2010). A Supply Chain as a Network of Auctions. *Decision Support Systems*, 50(1), 176-190.
27. Rai, A., Patnayakuni, R., & Patnayakuni, N. (2000). Firm Performance Impacts of Digitally Enabled Supply Chain Integration Capabilities. *MIS Quarterly*, 30(2), 225-246.
28. Rejman Petrović, D. (2016). Business Processes Improvement in E-supply Chains. *Economic Horizons*, 18(3), 209-226.
29. Rejman Petrović, D., & Arsovski, Z. (2016). *Business Processes Mapping for Improving E-supply Chain Performance*. Conference proceedings 4th International Scientific Conference, Contemporary Issues in Economics, Business and Management, Kragujevac, Faculty of Economics.
30. Ruiz-Mercader, J., Merono-Cerdan, A.L., & Sabater-Sanchez, R. (2006). Information Technology and Learning: Their Relationship and Impact on Organizational Performance in Small Businesses. *International Journal of Information Management*, 26(1), 16-29.
31. Saad, M., & Patel, B. (2006). An Investigation of Supply Chain Performance Measurement in the Indian Automotive Sector. *Benchmarking: An International Journal*, 13(1/2), 36-53.
32. Shepherd, C., & Gunter, H. (2006). Measuring Supply Chain Performance: Current Research and Future Directions. *International Journal of Productivity and Performance Management*, 55(3/4), 242-258.
33. Swanson, E.B., & Ramiller, N.C. (2004). Innovating Mindfully with Information Technology. *MIS Quarterly*, 28(4), 553-583.
34. Thakkar, J., Deshmukh, S.G., Gupta, A.D., & Shankar, R. (2006). Development of a Balanced Scorecard: An Integrated Approach of Interpretive Structural Modeling (ISM) and Analytic Network Process (ANP). *International Journal of Productivity and Performance Management*, 56(1), 25-59.
35. Trkman, P., McCormack, K., de Oliveira, M.P.V., & Ladeira, M.B. (2010). The Impact of Business Analytics on Supply Chain Performance. *Decision Support Systems*, 49(3), 318-327.
36. Vereecke, A., & Muylle, S. (2006). Performance Improvement through Supply Chain Collaboration in Europe. *International Journal of Operations & Production Management*, 26(11), 1176-1198.
37. Wu, I.-L., & Chuang, C.-H. (2010). Examining the Diffusion of Electronic Supply Chain Management with External Antecedents and Firm Performance: A Multi-stage Analysis. *Decision Support Systems*, 50(1), 103-115.

Chapter 11

Outsourcing in the Contemporary Structure of the Business Management Process¹

Tomasz Rojek

1. Introduction

The contemporary market is characterised by turbulence and instability tendencies. The main driving forces of transformations are competition, new sales markets, modern financial systems, new psychological requirements, as well as new communication and logistics networks. New market challenges and unlimited competition constantly force businesses to apply new solutions and management concepts.

Management is an art of achieving goals in formally organised groups. Thus, difficulties in the functioning of numerous organisations often arise from errors in managing them. Attention which is paid today to the problems of management is the reflection of the thesis that effectiveness and efficacy are necessary elements of success in every activity. The negligence of management problems leads to a crisis in an organisation, or even its collapse (Machaczka, 2005, p. 5).

Therefore, enterprises, wishing to face new market challenges and unlimited competition, use new solutions, more adequate to the contemporary conditions of functioning. The most important characteristics of the contemporary management include (Kłos, 2010, pp. 9-17):

- an increase in the flexibility of organisational structures, through their “leaning”, concentration on key skills,
- departure from repetitive and routine activities to the benefit of an innovative approach,
- the development of independent organisations based on strategic partnership.

On the basis of the contemporary management characteristics presented above, management methods were created, which have established on the market, and which are presented in short in Table 1.

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Table 1. Contemporary business management methods

Management method	Characteristics
Reengineering	It is a method of a radical transformation of all processes in the enterprise. The most significant principles are: customer orientation, process analysis, defining limiting conditions and creative thinking.
Benchmarking	The method of the search for model manners of operation in order to achieve the best possible results by learning from others. It consists in learning from the best ones and by the comparison with the best ones.
Lean Management	Lean Management stands for the leaning of the enterprise – fewer levels in the organisational hierarchy, the number of management positions reduced to minimum. The concept is based on six components: the focus on customer needs and leant production, improvement of quality; the development of new products and their introduction to the market; customer orientation; the ability to grow and to win a strategic investor; linking the firm to society.
Controlling	The task of controlling is to ensure conditions for the long-term existence of the organisation and ensuring its stability through the coordination of processes, the supervision and monitoring of tasks and co-participation in their performance.
Customer Relationship Management (CRM)	The main aim of this method is to focus attention on the customer and on his/her needs and desires, as well as building a permanent relation with him or her. It postulates the analysis of the firm from the point of view of benefits for the customer.
Knowledge Management	The method is a kind of a system which helps the organisation in the search for and the use of knowledge. It aims at faster making wise decisions in order to achieve competitive advantage. It is based on processes enabling the creation, dissemination and application of knowledge to achieve the goals of the organisation.
Value Based Management	The method is a management system including tools and procedures of decision making, aiming at the growth of the enterprise value to multiply the owners' wealth.
Outsourcing	The method consists in the isolation of a part of the firm's activities to an external supplier which is a specialised entity. Its task is, among others, to improve business processes, causing an increase in the enterprise competitiveness, and to reduce costs.

Source: own study based on: (Kłos, 2010, pp. 20, 24-25; Martyniak, 2002, pp. 56-57, 71-75; Zimmiewicz, 2003, pp. 17-21, 43-44, 56-57, 68-71; Hopej & Kral, 2011, pp. 9-11, 21, 43, 69-70, 191-192; Lichtarski, 2007, pp. 365, 374-376, 386-387).

The aforementioned market conditionings impose changes on firms, which become the essence of the firm's activity, and the ability of the firm to adapt to changeable conditions becomes necessary for its survival, as well as development. The presented new management methods aim at supporting decision-makers in this adaptation process. In spite of the risk related to the application of various concepts simultaneously, it is better to try to match them in configurations, and not treat them alternatively. It is also important to remember that in many modern concepts classic methods are applied, which is the reason for which the output of the predecessors should not be disregarded in the management practice.

2. The essence, types and the application of outsourcing in the management process

Outsourcing is a process consisting in the isolation of implemented functions from the enterprise structure and giving these processes to be executed by other business entities (Ciesielska & Radło, 2014, p. 9). It consists of two elements. The first one is a venture in which the delegation of some functions or an area to an external supplier takes place. The other element concerns long-time cooperation with an external entity (Kłos, 2010, p. 35).

As the basic features of outsourcing, the following are mentioned:

- Long-time relationship between the supplier and the employer,
- The comprehensiveness of the outsourcing solution, which is characterised by the delivery of knowledge necessary to perform tasks and implement new solutions, as well as the provision of a technology or resources,
- Management through procedures and processes which were developed jointly.

In spite of the fact that outsourcing is included in the contemporary methods, its beginnings go back to the 18th century. At that time Adam Smith observed that some firms can be more competitive due to the possibility of achieving an advantage owing to lower manufacturing costs. Also Henry Ford is among the forerunners promoting outsourcing. He is attributed the statement that if there is something we cannot do more efficiently, better and more cheaply than competitors, we should not deal with it, but we would better employ somebody who will do it better than we would (Ciesielska & Radło, 2014, p. 9).

The history of outsourcing is long, but the growth of its importance has been observed only in recent years. For the first time outsourcing became popular in the 1980s. It was when attention started to be paid to the significance of the outsourcing of manufacturing processes. The execution of semi-finished products and parts was outsourced to various suppliers. Another revolution was brought by the 1990s. It was when new information technologies occurred, which enabled cheap and fast data storage and transmission. Owing to those changes, numerous services suddenly became the object of trade and began to be supplied and manufactured by external suppliers (Ciesielska & Radło, 2014, pp. 13-14).

Nowadays, outsourcing is identified with actions like (Kłos, 2010, pp. 35-36):

- Winning external productive forces,
- Commissioning the provision of services to external entities, not to internal departments of the enterprise,
- Using external resources to perform tasks, instead of using own resources,
- Transferring permanent managerial responsibility for the execution of tasks defined in the contract to others,
- Signing a contract for the provision of services or the manufacturing of products by an external entity,
- Resignation from independent performance of all tasks in the organisation and entrusting them to specialised entities.

It should be also emphasised that outsourcing is a concept which enhances the effectiveness of the enterprise functioning in numerous aspects. It should be stressed that it does not focus only on the reduction of costs, since it also includes strategic and organisational, employee-related and market aspects, and not only economic ones.

At the same time, the most important reasons for entrusting the performance of tasks to external entities by a firm are considered to be:

- The control and reduction of operating costs,
- The access to talented employees,
- Sharing risk with a partner,
- The growth of the flexibility of a business model,
- Raising capital,
- Getting rid of tasks which cause problems and are deprived of control,
- Freeing own resources,
- Transferring tasks which are not the main area of activity of the enterprise to specialists,
- Faster benefits from the transformation of the firm's processes,
- Standardisation of the enterprise goals,
- Integration of new solutions,
- Meeting needs which are unlimited in comparison with the limited resources of single enterprises,
- The growth of the focus on the key activities,
- An increase in the quality of products or services.

Outsourcing is a complex venture realised in various circumstances. Outsourcing ventures and the ways of their realisation are different. Thus, we deal with numerous types of outsourcing ventures which may differ from each other from the point of view of various criteria, which is presented in Table 2.

Table 2. Types of outsourcing due to the criteria set.

Types of outsourcing		Characteristics
The aim of the isolation	Remedial outsourcing	The isolations of functions as outsourcing activities are undertaken: <ul style="list-style-type: none"> – to remedy the situation of the firm – remedial outsourcing; – to adjust it to a change in the conditions and requirements of the environment – adaptation outsourcing; – to provide conditions for the future development of the firm – developmental outsourcing.
	Developmental outsourcing	
	Adaptation outsourcing	
Type of isolated functions	Outsourcing of supplementary function	The basic activities constitute the essence of the firm's functioning. It is an area which determines the competitive advantage and can be identified with the concept of key competences. The area must be optimised and its strong position must be maintained. The supplementary activity consists of strategically important functions, but not the key ones. And the last one is secondary activity, namely functions with little strategic significance.
	Outsourcing of secondary function	
	Outsourcing of basic functions	
Complexity of isolated functions	Individual functions	Taking into consideration the function complexity level, three types of activity are distinguished, which are subject to outsourcing: individual activities, processes and functional activities. Individual activities are single functions which usually boil down to an independent position. Functional activities are more complex activities, which may be grouped by territory, subject or type. Business Process Outsourcing concerns diverse processes unrelated to the main activity of the firm.
	Processes	
	Functional areas	

Scope of isolation	Total outsourcing	<p>Total outsourcing consists in the majority of the areas of activity to be transferred to one or a bigger number of suppliers for the time set forth in the contract. Outsourcing with one supplier creates a situation in which more effective control of its work occurs.</p> <p>On the other hand, such cooperation is related to a lot of risk, since great dependence of the parent company on one supplier occurs.</p> <p>On the other hand, partial outsourcing boils down mainly to the isolation of a narrow area of the enterprise, leaving the rest inside the firm.</p>
	Partial outsourcing	
Durability of isolation	Strategic outsourcing	<p>Strategic outsourcing is the isolation which is related to the strategy of the parent company development in the strategic horizon, whereas tactical outsourcing is the isolation which is not related to the strategic goals of the parent company development.</p>
	Tactical outsourcing	
The form of subordination after the isolation	Capital outsourcing	<p>Capital outsourcing consists in the exchange being a result of the isolation of the organisational subordination and impact to the capital subordination and the owner's impact.</p> <p>Contract outsourcing consists in the exchange being a result of the isolation of the organisational subordination and impact to the contract subordination and impact.</p>
	Contract outsourcing	

Source: own study based on: (Trocki, 2001, p. 60; Kłos, 2010, pp. 35-45).

Here we should also mention the forms of so-called foreign outsourcing, which occurs when tasks are transferred to other countries. Foreign outsourcing can be divided into (Matejun, 2006, pp. 26-27):

- Offshore outsourcing – the transfer of tasks to other countries,
- Nearshore outsourcing – is it the use of countries located near the home country,
- Onshore outsourcing – occurs when the parent company and an external partner come from a developed country, however, the supplier commissions the performance of a task to subcontractors from developing countries,
- Do-it-yourself offshore – In this case, the firms decided to create a branch or a foreign subsidiary which will be its part.

In the above summary, in the context of foreign outsourcing, the term offshoring appears, which is exactly the process consisting in the manufacturing of services and products in the territory of another country. It can be conducted internally in the enterprise, for example by the isolation of a subsidiary in the company, or via outsourcing and transferring it to a contractor. The development of offshoring arises from the increasing needs for new types of services. These are mostly services related to knowledge and information, for example: IT, marketing, market research and analysis. Offshoring can consist in the isolation of some production or service processes to foreign plants or buying products or services from external entities.

3. The conditionings, premises, as well as advantages and disadvantages of outsourcing

Undoubtedly, outsourcing creates a lot of opportunities for the development of enterprises, corresponding to various motives for which they make decisions about the use of this concept. Usually, the main motive are cost factors. However, although costs are the key factor, nowadays, enterprises are more and more aware of a possibility to achieve other benefits, too. The following are mentioned in the first place: acquiring new skills, focus on the core activity, better efficiency, improving the activity of the enterprise, better effectiveness without a necessity to invest, bigger profitability, better quality of services, access to specialist knowledge, greater stability in employment, an increase in the flexibility of the company operations (Ciesielska & Radło, 2014, pp. 24-27).

The benefits presented above are of a general nature. Focusing on benefits achieved in individual areas of the enterprise functioning, we can mention the following advantages resulting from the use of outsourcing (Kłos, 2010, pp. 45-47):

- Adjusting internal supplementary functions to bigger competition,
- Risk reduction arising from market changes,
- A change in the structure of fixed and variable costs,
- Achieving the transparency of costs,
- An increase in incomes, through shifting capital into key processes, generating profits, also those which were not economically profitable before,
- Introducing the discipline of processes via standardisation,
- Rotation of positions – adequate employee rotation systems,
- Introduction of the latest technologies without capital investments,
- Obtaining the access to business expertise of the world quality, not available inside the organisation,
- Generating cash flows by passing fixed assets and immaterial values,
- The access to new skills and technologies,
- Reducing employment and financial obligations,
- Increasing productivity,
- An increase in the responsibility of the performer of actions – sharing risk.

The success of the introduction of outsourcing does not arise from the very fact of the application of this concept. The premises of the success of outsourcing are as follows: precise and clear strategy, introducing the effect measurement ratios, as well as cooperation based on partnership between the employer and the outsourcing task contractor. The key success factors include (Nowicka, 2016, p. 157):

- Proper definition of aims, benefits and results,
- Support and commitment,
- Competent and well chosen team,
- Regular risk monitoring and control,
- Reliable and timely analyses and reporting,
- Proper communication in the project,
- Adequate division of obligations and tasks,
- Well prepared plan and schedule of the project, which is updated on an ongoing basis.

Outsourcing is often a way to improve the functioning of the organisation, which brings a lot of benefits. However, the application of the concept can end in a failure. It is often stem from various factors. Below there are typical sources of problems in the implementation of outsourcing activities (Ciesielska & Radło, 2014, pp. 26-29):

- Lack of clearly defined expectations of the client,
- The client's problems related to the management of numerous outsourcing contracts,
- Lack of the ability to choose proper external advisors,
- Poor communication between the parties to the contract,
- No support for outsourcing from the client's employees,
- Lack of the skill to identify outsourcing risks,
- No outsourcing management programme,
- Excessive haste,
- Bad management of cooperation within the contract.

Poor preparation of the outsourcing project is a very frequent reason for its failure. To minimise the significance of this source of threats, it is necessary to carefully analyse the outsourced processes and prepare the enterprise to the implementation of the outsourcing strategy. To avoid problems which may appear during the implementation stage after signing the contract, it must be ensured that the service provider will plan and execute each task with due diligence. What is particularly important is a careful approach to outsourcing management, clear and transparent communication with the supplier and respect for its interests. Cooperation should be based on partnership and mutual respect (Ciesielska & Radło, 2014, pp. 29-31).

When analysing motives of using outsourcing, and when discussing disadvantages and advantages, we can notice that there are many more advantages. However, the enterprise must be aware of the existence of disadvantages, too. They are reflected both in external threats, not arising from its essence itself, and also in fears of the unknown. Typical disadvantages or threats can include (Kłos, 2010, pp. 48-49):

- The loss of control over the manner of conducting the isolated activity,
- The loss of work by some of the staff,
- The possibility of the loss of confident information,
- The lowering of the quality of products or services via improper performance of a service by another entity,
- The occurrence of extra, unexpected costs,
- The lack of own staff,
- The growth of dependencies from suppliers,
- The risk of technical interference,
- The possibility of fraud from the supplier,
- The disclosure of financial capacity,
- High entry barriers.

M.J. Power, K.C. Desouza and C. Bonifazi (2008, pp. 38-48) distinguish 10 most frequent outsourcing traps, which include:

1. Scarce knowledge about outsourcing methods,
2. Lack of managers' commitment,
3. No communication plan,
4. No recognition of business risk,
5. Poor relation management,

6. Underestimation of cultural differences,
7. Ignoring factors which determine the supplier's productivity,
8. Excessive haste during the implementation,
9. Not using external sources of knowledge,
10. Lack of the commitment of the best managers in the project.

Outsourcing has become an important concept in the modern methods of conducting business activity. Enterprises can optimise organisational structures and totally change the way of conducting activities thanks to building strategic relations with external firms. As an element of the restructuring process, outsourcing helps to develop the activity. Small enterprises have a possibility to use solutions which are applied by large enterprises without incurring high costs and without wasting time to win trained employees.

It happens that outsourcing does not bring expected effects. There may be a lot of reasons: not high quality of service, not really good cooperation or too high costs. If the enterprise comes across such problems, we must remember that it is possible to bring the realisation of specific tasks back to the internal organisational structure or it is also possible to find another specialist firm and sign a new outsourcing contract with it (Cook, 2003, p. 282).

4. The organisation of the management process in the form of an outsourcing centre

The outsourcing services market has a global, international, domestic, as well as local dimension. Depending on the scope of enterprise activities, the access to this market can be different, just like the access costs can be different. Therefore, the possibilities of the outsourcing services market must be analysed individually considering specific conditionings of enterprise activities (Trocki, 2001, p. 66). Outsourcing services can be called services which are provided based on an outsourcing contract where the process, tasks or functions are entrusted to a specialised external firm.

In these conditions, outsourcing service centres for business are becoming a more and more important form of enterprise in economy. International corporations, reaching all continents with their branches, use business centres located in numerous regions for the management and support of their business processes.

We can distinguish four types of them:

1. Shared Services Centres (SSC). It is an integrated department (e.g. accounting) which serves the corporation in the whole region,
2. Business Process Outsourcing (BPO). The centres function in a similar way to SSC, with the exception that one specialised firm conducts departments for a few corporations,
3. Information Technology Offshoring (ITO). The centre operates IT processes,
4. Research and Development (R&D) – centres which deal with research and development.

Modern business centres provide outsourcing services for foreign and domestic entities. They function both as external entities, non-related by capital with their customers, and as organisational units of a corporation.

Shared Services Centres (SSC) most often operate as separate service units within the activities of a given enterprise or as independent entities which provide services for equity-related parent company and its numerous branches. BPO centres operate as specialised external entities or organisational units of a corporation. Their client is an external firm which transfers selected

business processes to them. BPO functions are usually qualified with the division into so-called back-office and front-office functions. In the back-office group we can include functions such as finance and accounting, consulting, purchasing and procurement. The front-office group includes all service functions related to customer service, e.g. call centre type services or guarantee service. An important role in the development of modern business services is played by research and development centres. They are modern, highly-specialist business entities which provide services for other entities. Specialist enterprises prepare advanced services for clients, which require knowledge and many years' experience. These are services like analyses, market research, legal services, consulting services (Marcinkowska, 2015, pp. 134-135).

5. Conclusion

The basic benefit being the main argument speaking for the application of outsourcing in the business management process is cost reduction. Traditionally, outsourcing is used when available external resources are cheaper than the internal ones. More and more often, however, other factors seem to be more significant, such as: the provision of services on the highest level, the specialisation of labour, focus on business functions or the access to specialist knowledge. Outsourcing enables the concentration of funds, management forces and processes on the fundamental goals of the enterprise. The enterprise is then able to achieve better results and maximise its value. Also the flexibility of operations is increased, and through the saving of time and human resources – also efficiency.

When undertaking the cooperation in the form of outsourcing, it is possible to gain a lot, but also to lose a lot, since outsourcing has also negative sides. They occur both in an organisation which gives part of its tasks in somebody else's hands, and in an external firm. What can be a trap is the wish for too big cost reduction. The reduction of costs is a benefit coming from outsourcing but too much pressure on their reduction can also lower the quality of the services provided, since the contractor can operate at the edge of profitability.

Therefore, it should be remembered that making a decision about outsourcing, it is necessary to carefully analyse the situation of one's enterprise and define the aims which it wants to achieve by introducing the new concept. And a decision made about the choice of the supplier must be carefully analysed because this choice is one of the main factors determining the success of the signed outsourcing contract.

Bibliography

1. Ciesielska, D., & Radło, M.J. (2014). *Outsourcing w praktyce*. Warszawa: Wydawnictwo Poltext.
2. Cook, M.F. (2003). *Outsourcing funkcji personalnej*. Kraków: Oficyna Ekonomiczna.
3. Hopej, M., & Kral, Z. (Eds.). (2011). *Współczesne metody zarządzania w teorii i praktyce*. Wrocław: Oficyna Wydawnicza Politechniki Wrocławskiej.
4. Kłos, M. (2010). *Outsourcing w polskich przedsiębiorstwach*. Warszawa: CeDeWu.pl.
5. Lichtarski, J. (Ed.). (2007). *Podstawy nauki o przedsiębiorstwie*. Wrocław: Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu.

6. Machaczka, J. (2005). *Podstawy zarządzania*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
7. Marcinkowska, E. (2015). Rynek outsourcingu usług biznesowych w Polsce – stan i perspektywy rozwoju. *Studia Ekonomiczne*, (244), 130-140.
8. Martyniak, Z. (2002). *Nowe metody i koncepcje zarządzania*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
9. Matejun, M. (2006). Rodzaje outsourcingu i kierunki jego wykorzystania. *Zeszyty Naukowe Politechniki Łódzkiej*, 989(42), 19-36.
10. Nowicka, K. (2016). *Outsourcing w zarządzaniu zasobami przedsiębiorstwa*. Warszawa: Difin.
11. Power, M.J., Desouza, K.C., & Bonifazi, C. (2008). *Outsourcing, podręcznik sprawdzonych praktyk*. Warszawa: MT Biznes Sp. z o. o.
12. Trocki, M. (2001). *Outsourcing. Metoda restrukturyzacji działalności gospodarczej*. Warszawa: PWE.
13. Zimniewicz, K. (2003). *Współczesne koncepcje i metody zarządzania*. Warszawa: PWE.

Chapter 12

The Role of Management Tools in Managing Business Ethics

Irmina Grabowska

1. Introduction

To understand the role of management tools in managing business ethics, it is first necessary to review the history of business ethics. Today's business ethics has moved beyond identifying ethical issues, developing codes of ethics, and implementing elements of the business ethics program to prevent misconduct. As we move forward, there will be a greater emphasis on business ethics strategy planning, managing stakeholder relations, and performance evaluation metrics.

No longer is it adequate to have a static ethics program. Each organization now sees a greater interest in understanding the costs, performance benefits, and improvements in this dynamic program that will not only prevent ethical misconduct, but, also assist in building an organizational culture that improves overall business performance. Stakeholders expect high organizational performance in the business ethics area. Greater interest in development new business ethics techniques together with employees, codes of ethics, training and evaluation against the goals and objectives of the organization and core business strategy.

My objective in this paper is to try to look into the management tools and identify their role in managing business ethics. In order to accomplish this objective, I will first provide a foundation of business ethics and compliance initiatives based on key components of business ethics management.

2. Business ethics management

2.1. Definition of business ethics management

Before proceeding any further, it is significant to establish what exactly managing business ethics means. Peter Drucker, as one of the greatest management authority state that management refers to organizing company resources and directing efforts in pursuit of organization goals and economically important results (Drucker, 2006). Management helps organisations to optimally execute the chosen strategy, which is done by taking proper actions and interacting with all

stakeholders that will help in achieving the organisational goals. Obviously, managing any area of business is concerned with the whole range of activities such as: planning, organizing, leading, and control (Mullins, 2010). Planning involves decision making process by which detailed plan of action is created to achieve desired results. It determines the organisation's direction by gathering required information, defining organisation's goals and objectives, designing strategies and developing plan of action. Management plan takes into account both short- and long-term strategies referred to as a course of action and roadmaps. Organising requires a proper allocation of significant resources including financial resources, human resources, and physical resources whereby management plan is implemented. Good communication is the key foundation of sound management in order to coordinating activities in an organisation (Jain, 2005). Leading focuses on the ability to guide, motivate, inspire and supervise employees to achieve desired goals. Controlling monitors and ensures that each course of action doesn't deviate from the pre-defined organisation's goals and objectives. The control process also requires corrective and preventive actions when needed, in order to correct and eliminate causes of any deviations (Jain, 2005).

Basically, the most significant aspects of business ethics management are identified such as trust, transparency, stakeholder engagement and values that are directed respectively to resolve ethical problems. Andrew Crane and Dirk Matten defined and explained the management of business ethics as the direct effort towards formal or informal managing ethical issues via particular policies, programmes and practices (Crane & Matten, 2010). This statement covers complete set of elements that can be applied individually or in combinations, appropriate for addressing ethical issues in business.

2.2. Key components of business ethics management

There are various business ethics management components such as codes of ethics, social auditing and standards of ethical behaviour that are regarded as managing stakeholder relations, managing the ethical behaviour of employees, and also managing, monitoring and evaluating ethical performance. Key components of business ethics management are described in fuller detail below:

- **Mission and values**

These are accepted statements of collective plans, beliefs and values. Obviously, each statement includes social goals such as contributing to the community (e.g. maintain good relations among employees) (David, 1989). In terms of business ethics, it is relevant to establish a very specific vision for where the company is going and what are corporate aims that may have much impact on stakeholders' behavior (Bart, 1997).

- **Codes of ethics**

In some organizations, specific principles are designed to outline the mission and values of the business. The principles are based on the standards of ethical behavior and organization's core values (Crane & Matten, 2010).

- **Advice channels**

Appropriate channels for providing advices concerned with ethical dilemmas are also very important components of business ethics management. These elements are specifically used for notifying management about ethics issues and seeking guidance on solutions.

- **Ethics managers, officers and committees**

Business ethics managers, officers and committees are responsible for coordinating and managing ethics in the organization. Designated ethics managers are appointed to implement ethical standards aligned with the organization's core values accordingly (Jaques, 2003).

- Ethics education and trainings

Business ethics education and trainings among business people provide the ability to recognize and solve ethical dilemmas more precisely and easily (Thorne LeClair & Ferrell, 2000). Main goals for ethics trainings such as correct identification of ethical decision-making situations, understanding organization's culture and values, and evaluation of the ethical decision impact on the organization (Kirrane, 1990).

- Stakeholder dialogue and partnership program

It is essential that each organization consults with specific stakeholders ethical issues and includes them in managing business ethics and corporate decision-making. Organization's dialogue and communication with both internal and external stakeholders about corporate responsibility aspects may help organization assess stakeholder's views on specific issues and may help in the promotion of corporate accountability.

- Auditing and Reporting

These are sets of activities that are mainly focused on evaluating and communicating ethical business practices to appropriate stakeholders. The need for business ethics auditing and reporting is being stressed by many academic writers in order to measure the organization's performance and impact on ethical, social and environmental issues. The SA 8000 Standard and Global Reporting Initiative (GRI) provide standards internationally in enhancing corporate accountability and assessing ethical performance.

2.3. The need for management of business ethics in organisations

Globalization has influenced the visibility of unsustainable actions, and firmly established the Corporate Social Responsibility (CSR) strategy (Lubin & Esty, 2010). Increased competitive advantage, improved talent management and reputational boost are only a few opportunities that play a crucial role in enhancing new strategy of ethical management in business (McWilliams & Siegel, 2001). As mentioned, CSR as a business ethics concept has multiple strategic benefits. Table 1 shows specific business ethics behaviours, strategic examples and business outcomes.

Table 1. Examples of CSR behaviour and business outcomes

CSR activities	Strategic examples	Strategic Outcome
Philanthropic contributions	donations and community support	<ul style="list-style-type: none"> • customers loyalty • new purchasers
Employees	work-life balance, flexible hours, day-care and health	<ul style="list-style-type: none"> • employee loyalty • productivity gains
Environment management	process changes regarding pollution and reduced carbon footprint	<ul style="list-style-type: none"> • public relations advantage • new processes
Products or services, innovations and processes	product reformulations: e.g. improved fuel efficiency	<ul style="list-style-type: none"> • improved products • be first-to and ahead of any governmental regulations

Source: own elaboration based on: (Burke & Logsdon, 1996, pp. 495-502).

To conclude, corporate social responsibility as a strategic differentiator gives organization a significant advantage not only over the competition (McElhaney, 2009). CSR activities enhance the company's competitiveness but at the same time advance social and economic conditions in the organization's environment (Porter & Kramer, 2011).

3. Business ethics management tools and their roles

In this section, I shall provide three management tools particularly relevant for management of business ethics. With greater attention placed on business ethics management over the last decade, many organizations make an effort to set out and implement the areas in which the management of business ethics is constantly being developed. Three main types of business ethics management tools and techniques were taken into consideration in order to estimate their role in managing business ethics:

- business ethics strategy planning,
- stakeholder relationship management,
- ethical performance evaluation.

3.1. Business ethics strategy planning

The key point of effective business ethics management is the implementation of an integrated strategy. Sustainability should be included in every function, business line and also should touch every employee (Lubin & Esty, 2010). Before planning, each organization must define the way each manager and employee approach their responsibilities and daily work to be more and more sustainable. Despite the fact that organization's culture and integrity can be identified, the given evaluation is not the one required – the main problem of appropriate business ethics strategy planning is associated with the proper implementation. The fundamentally reposition and re-definition of an organization's strategy is needed and that's the completely challenge. In terms of the challenges the organization should be able to integrate the strategic plan based on available resources and stakeholder needs. The main role of this technique is not only analysing the organization's resources and capabilities but also analysing social needs and competitive environment. Proper evaluation of organization's identity and culture in terms of social needs and opportunities will play a significant role in planning business ethics strategy.

3.2. Managing stakeholder relations

It is important to mention the significant effect the organization's products or services, activities and associated performance have on employees, customers, investors, communities, the environment, business partners, competitors and governments. In addition to having an influence on the various stakeholders, there is a growing recognition of organization's attention to social needs and environmental protection (Lee, 2008). Moreover, building the foundation of trust with the community by acting responsibly towards stakeholders can help organization attract investors, reliable employees and good customers but also build value for its shareholders. To effectively

manage stakeholder relations, each organization should work in partnership with most affected by its decision and develop new solutions such as innovative processes, products or services aligned with the core business strategy and changing social and environmental needs. Hence, the role of a proper technique for managing business ethics could simply affect the development of economically viable products and services. This approach underlined each organization's commitment to develop solutions, cooperating and working in a partnership with local societies and aligning integrated business strategy with very dynamic social and environmental issues.

3.3. Evaluation of ethical performance

In order to ensure the high level awareness of ethical demands, it is important to maintain a consistent and trustworthy analysis. Recognition of organization's impact on all affected stakeholders can help improve managing of business ethics within the organization. Using the proper framework of evaluation of ethical performance tool can address the potential and eventual gaps, outcomes and consequences in managing business ethics. A set of principal elements, analysis and reporting (such as context, outcome, and consequences) will describe the way organization plan and develop business ethics strategy. The main role of this tool is to strengthen the ethical behavior, and organization ethical awareness. It is significant to establish expected results and always try to identify opportunities for further and better improvements.

3.4. The role of business ethics management tools

These business ethics techniques are frequently interconnected and interdependent and apply to each organization wherever operates in the world. It is an entry point for better understanding ethical issues and responding to all of them in organization's strategy. Related issues include the greater attention to listen to all different groups of stakeholders and take into account their needs in order to build the proper business ethics strategy. Then the assurance of business ethics strategy in order to meet all demands and expectations, and proper evaluation on already adopted business ethics commitment. Table 2 presents the concept and scope of applied task delineation.

Table 2. Conceptual phases of business ethics management

Conceptual phase	Task delineation	Results
PLAN	1. Conduct business ethics assessment 2. Develop business ethics strategy	Review corporate documents, processes and activities, identify and engage key stakeholders
DO	1. Develop business ethics commitments 2. Implement developed commitment	Establish business ethics commitment. Prepare and implement business ethics plan. Engage employees and others to whom commitment apply
CHECK & IMPROVE	1. Assure and report on progress 2. Evaluate and improve	Measure and assure performance. Evaluate and identify opportunities for improvement

Source: own elaboration based on: (Crane & Matten, 2010, pp. 125-150).

The key phases of business ethics concept, broadly, are concerned with the meaning of all aspects of social and environmental needs. The implementation of integrated strategy, stakeholder engagement and considering the important role of business ethics assurance and evaluation can be described in terms of specific results.

4. Conclusion

The institutionalization of business ethics has advanced rapidly on a global basis over the last years. Management tools will increase as very important techniques and best practices developed by each organizations. Values, norms, and the artifacts of business ethics represent the tangible evidence of a high performance business ethics initiative. There is much research needed to guide the development of business ethics in understanding and developing ethical organizational cultures. This provides an opportunity for academic researchers to partner with businesses in gathering information, developing case studies, and analyzing best management tools and core practices. In the end, an organizational-wide, cross-functional cooperation and the integration of above mentioned tools will yield the most effective results. Appropriate commitment and oversight from the board of ethics managers and committees should provide the proper resources and evaluation. The future of using management tools in managing business ethics is bright and provides many opportunities for each organization and for a better world.

Bibliography

1. Bart, C. (1997). Sex, Lies and Mission Statements. *Business Horizons*, Nov-Dec, 9-18.
2. Burke, L., & Logsdon, J.M. (1996). How Corporate Social Responsibility Pays Off. *Long Range Planning*, 29(4), 495-502.
3. Crane, A., & Matten, D. (2010). *Business Ethics*. Oxford University Press.
4. David, F. (1989). How Companies Define their Mission. *Long Range Planning*, 22(1), 90-97.
5. Drucker, P. (2006). What Executives Should Remember? *Harvard Business Review*, 84(2), 144-152.
6. Jain, N.K. (2005). *Organisational Behaviour*. Atlamtis.
7. Jaques, E. (2003). Ethics for Management. *Management Communication Quarterly*, 17(1), 136-140.
8. Kिरrane, D. (1990). Managing Values: A Systematic Approach to Business Ethics. *Training and Development Journal*, November, 53-60.
9. Lee, M. (2008). A Review of the Theories of Corporate Social Responsibility: Its Evolutionary Path and the Road Ahead. *International Journal of Management Reviews*, (10), 53-73.
10. Lubin, D., & Esty, D. (2010). The Sustainability Imperative. *Harvard Business Review*, May, 43-50.
11. McElhaney, K. (2009). A Strategic Approach to Corporate Social Responsibility. *Leader to Leader*, 52(1), 30-36.
12. McWilliams, A., & Siegel, D. (2001). Corporate Social Responsibility: A Theory of the Firm Perspective. *Academy Of Management Review*, 26(1), 117-127.

13. Mullins, L.J. (2010). *Management & Organisational Behaviour*. Pearson.
14. Porter, M., & Kramer, M. (2011). Creating Shared Value. *Harvard Business Review*, Jan/Feb, 62-78.
15. Thorne LeClair, D., & Ferrell, L. (2000). Innovation in Experiential Business Ethics Training. *Journal of Business Ethics*, 23(3/1), 313-322.

PART II

SELECTED ASPECTS OF HUMAN CAPITAL MANAGEMENT



Chapter 13

Determinants of Human Resource Development in an Organisation

Renata Oczkowska

1. Introduction

One of the key sources of competitive advantage is human resource management. Workers employed in an organisation should be regarded as a valuable asset component. Actions in the sphere of human resource management in an organisation should be focused on creation and effective use of the potential of human resources. It is necessary to explain that employees have a resource, namely all features and properties that allow them to perform roles in the organisation. The most important components of the human resource include: knowledge, capabilities, skills, health, attitudes and values, as well as motivation. Human resource thus belongs to particular employees, who determine the level of involvement of this resource during their work. A great significance in this context is held by the human resource development process, which is determined by many factors related to the broadly understood macro-environment and the competitive environment.

The purpose of the paper is to indicate the key determinants of human resource development in an organisation.

2. Concepts of human resource development in an organisation

Development of the organisation is closely related to development of its human resources. Employees determine whether and how the company is able to use its resources to effectively function in the changing environment. Hence the need for continuous investment in the development of human resources in the organisation.

According to A. Pocztowski (2008, p. 274), development of human resources includes purposeful configurations of projects involving gaining of knowledge, development of capabilities, shaping of value, attitudes, motivation, and skills, as well as care for the physical and mental condition of people performing work. These projects lead to growth in work efficiency and to growth in the market value of human resources.

H. Król understands development of human capital as a set of activities regarding gaining of knowledge, development of capabilities and skills, shaping of motivation, as well as physical and

mental condition of employees, which should lead to the growth in their individual human capital and in the value of the organisation's human capital (Król & Ludwiczynski, 2006, p. 432).

On the other hand, A. Szałkowski (2002, pp. 20-21) refers to personnel development or work potential. The work potential includes such elements as: knowledge, skills, capabilities, health, and motivation. In his opinion, development of the work potential means all purposeful and systematic activities that are addressed to employees at all hierarchical levels of the organisation. These activities concern: specific forms of training and in-service training, planning and pursuance of professional careers, as well as structuring of work. J. Barthel and F.G. Becker (2007, p. 226) state that personnel development constitutes a consistent and systematically implemented concept of trainings, planning of professional careers, and structuring of work, ensuring qualification improvement and growth in work efficiency. They also emphasise pursuance of both the company's objectives, as well as the employees' objectives.

The quoted definitions contain many common elements. The Authors stress the significant role in the human resources development played by activities concerning acquisition of knowledge, improvement of skills and capabilities, shaping of motivation, as well as taking care of health. Furthermore, the Authors emphasise the fact that these actions are subordinated to achievement of the goal, namely increase of the individual human resource and the market value of human resources in the organisation. Therefore, the paper – even though development of human resources is assumed as the main term – also interchangeably uses the terms development of human capital and personnel development. It is worth mentioning that A. Szałkowski and J. Barthel, F.G. Becker additionally mention the applied tools in their definitions of personnel development.

It seems important to stress the benefits related to application of the systemic concept of the human resource development in the company (Tab. 1).

Table 1. Benefits of human resource development for the company and the employee

Benefits for the company	Benefits for employees
<ul style="list-style-type: none"> • Having qualified managers and employees in a long period of time • Maintenance and improvement of qualifications of all employees • Development of professional careers • Contribution to the growth of employee bonds • Improvement in cooperation and communication in the company • Reduction of excessive fluctuation and de-motivation • Improvement and strengthening of the image of the company as an employer • Better personnel on key positions 	<ul style="list-style-type: none"> • Activation of the unused potential and talents • Self-improvement by undertaking new demanding projects • Possibility of development and building of the career path • A sense of job security • Self-development • Impact on the development path

Source: (Tschumi, 2011, p. 13).

The source literature distinguishes four typical approaches to human resource development:

- undertaking ad-hoc measures in the scope of development of human resources,
- implementation of a purposeful policy focused on creation of a relevant resource of knowledge and skills,
- selective undertaking of actions aimed at creating a knowledge and skills resource,
- acquisition of the necessary human resource from beyond the company.

The first strategic approach assumes undertaking of actions only in the case of difficulties with ensuring employees with specific knowledge and skills in the organisation. These actions are temporary and their aim is to solve the problem constituting a barrier in proper functioning of the organisation. The necessary employees are acquired from people already employed, or new employees are employed.

The second strategy consists in implementation of a purposeful policy focused on creation of a proper knowledge and skills resource in the company, which assumes that this resource constitutes an important strategic factor for the development of the whole organisation. In this case, young employees with high development potential are employed. Then, a purposeful policy is implemented towards them, allowing for the development of their potential.

The next approach to the development of human resources is characterised by hiring pre-prepared employees with some professional experience and then verifying their usefulness on various positions. Should any gaps in preparation to work on a given position be observed, actions are undertaken, focused on development of the missing elements of their work potential.

The fourth possible option of human resource development assumes obtaining the necessary work potential outside, by employing people from outside the organisation. If the employees do not meet the expectations, the employer resigns from further cooperation.

More and more often, the subject literature replaces the term of development of human resources with the term of “learning and development” (Armstrong, 2011, pp. 555-556). The learning and development strategy should support achievement of business objectives of the company through promotion of competitive advantage in the scope of human capital, and should also take account of the needs and aspirations of employees. Implementation of the organisational objectives will be possible through development of relevant skills and capabilities of particular employees and teams.

Development of human resources may be discussed on three levels:

- the whole organisation and its social system, which includes all employees currently employed in the company,
- particular employee teams, and
- individuals, when the aim is to satisfy individual needs of employees.

Each of the listed levels requires defining the scope of human resource development projects appropriate for a given company. Human resources held by individuals, teams and entire organisations may be analysed in connection with the current and future needs. Therefore, it can be concluded that the work potential of employees covers the elements currently used in the process of work performance and necessary to meet future requirements in this respect. The relevant projects undertaken as part of the development of human resources allow for adjusting to the expected changes taking place both inside the organisation and in its environment.

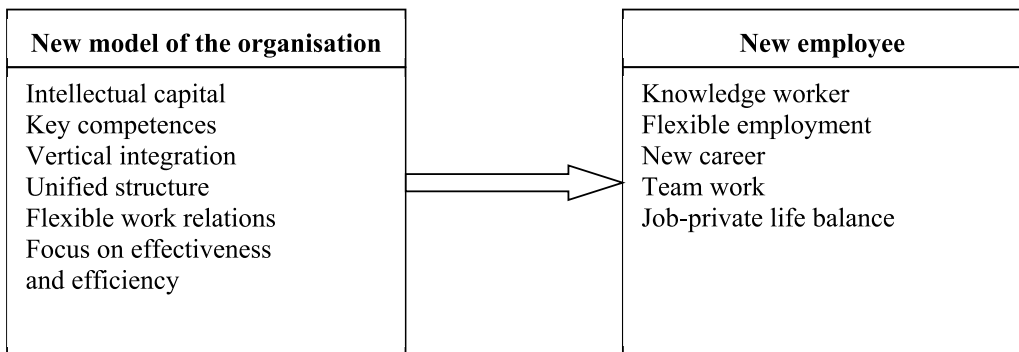
The work potential development programmes prepared in connection with the needs of a given organisation may be focused on improvement of professional knowledge, the employees’ practical skills, the development of creative thinking, or the shaping of proper attitudes towards work, co-workers or customers.

3. Key determinants of human resource development

Development of human resources in an organisation is determined by many factors, which should be sought in new phenomena in the broadly understood macro-environment and in the competitive environment. From among the challenges faced by contemporary companies, particularly important place is held by the globalisation process, the growing role of human capital as a source of competitive advantage, the use of possibilities created by technologies, the pursuit of efficiency increase, the need for operating under the conditions of continuous changes. New conditions require quick action, flexibility, capability of learning, and high level of employees' competence.

The global competition creates new systems of relations, new quality of technical progress, new methods of gaining competitive advantage (Zorska, 1998, p. 32). It is necessary to have new organisational models, different ways to configure actions and new ways to cooperate with the environment. Companies must be flexible enough to be able to quickly adjust to the changing environment, to anticipate and – above all – be ahead of the occurring changes.

Figure 1. New model of the organisation and the organisation's employee



Source: prepared by the author on the basis of (Bahrami, 1996, p. 18, [after:] Gierszewska & Wawrzyniak, 2001, p. 77; Pocztowski, 2008, p. 39).

The most important phenomenon in the recent years of the world's economy is the market globalisation tendency and the related need to globalise management. An important aspect of globalisation is the blurring of differences between particular nations. In addition, knowledge and intellectual capital become a key factor in the competition (Strojny, 2000). According to P. Drucker, knowledge in the new economy will not be simply another production factor, knowledge will be the main factor (Gierszewska & Wawrzyniak, 2001, p. 60).

In order to maintain their competitive position, companies must constantly generate new knowledge, disseminate it inside the organisation and transform it into new competences.

As stated by J.B. Quinn, A. Toffler and P. Drucker, economic and manufacturing power of modern companies lays more in their intellectual and services-oriented capabilities than in production property, such as its land, production plant or equipment. The value of most products and services depends on the access to knowledge-related factors, such as technological know-how, marketing image, understanding of the customer, individual creativity and innovation (Nonaka & Takeuchi, 2000, p. 23).

Knowledge has become one of the key strategic resources of companies, which largely determines whether the company can maintain its competitive position. A modern company must thus have the ability to create new knowledge¹, disseminate it in the organisation and materialise it in products, services and systems. However, in the conditions of globalisation and quick technological changes, creation and transfer of knowledge inside the organisation are insufficient to maintain a distinguished position on the market. Companies must therefore acquire knowledge created in the environment, among others, by employing educated personnel, employing the hired consultants, experts or scientists for definite time, cooperating with scientific centres and research institutions, or concluding strategic alliances. Such are the objective requirements of the contemporary world economy – to become “learning organisations”. It is a fundamental condition for existence and development of the organisation.

One of the basic conditions for achievement of success by the organisation is to obtain the right quantity and quality of knowledge and capabilities to use and update it. These abilities and knowledge should make the organisation stand out in the environment. Knowledge management relates directly to human resource development in organisations. The subject literature presents many models indicating a set of competences that should be held by employees of a modern organisation. Employee competences are part of the core competences of the organisation (Jabłoński, 2009, pp. 95-97). Employee competences in the organisation include knowledge, experience or skills of the company’s management, the middle-level personnel, employees in the research and development sphere, as well as technicians and workers (Pierścioneł, 1998, p. 118). Employees form interpersonal relations, build relationships, or undertake strategic decisions. In the conditions of changing environment and growing competition, no company can survive on the market without competent managers and efficient management. Their decisions also determine the condition of other assets. The basic employee competences in a contemporary organisation are presented in Table 2.

Table 2. Basic employee competences in contemporary organisations

Employee competences
<ul style="list-style-type: none">• Ability to search for and process information• Team-working skills and ability to cooperate with other people• Ability to work in an international team• Ability to function in increasingly complex organisations. Ability to formulate a problem and look for solutions, classify problems according to their significance• Ability to organise their work, ability to action on their own, set goals and priorities, create a plan of action• Ability to organise the work of others, manage funds, set out directions, negotiate goals, decide and search for compromise solutions, analyse and control the obtained results

Source: (Mikuła, 2006, p. 210).

¹ For the purposes of characterising phenomena related to creation of knowledge, it is very often divided into two categories: explicit knowledge and implicit knowledge (tacit knowledge), see: e.g.: (Stonehouse, Pemperton & Barber, 2000), as well as (Strojny, 2000). Explicit knowledge is tangible and identifiable. It may be presented with numbers, words or symbols, as a result of which it can be systematised and transferred relatively easily, especially by means of information technology. Implicit knowledge exists in people’s conscience and is used by them, but it is difficult to identify and record, and thus its formalisation and transfer is also problematic.

A significant trend is the increasing global competition in mature sectors of production and services, the easy flow of technologies, and the reduction of barriers in international trade. International competition is favourable for raising standards, and customers become more and more demanding. Legal regulations concerning the labour market and employment are changing. Companies are thus forced to: focus on the customer, improve quality of products, quickly respond to changes in the environment, introduce new technologies, undertake flexible activities, or save costs. Companies reduce employment, search for peripheral employees (subcontractors or employees working for indefinite time), and contract performance of certain works service companies (outsourcing).

In pursuit of maintenance or improvement in the competitive position, companies have to implement an active policy of improvement of products, improvement in their quality, need to raise the level of provided services, as well as optimise manufacturing costs. In order to be able to achieve these plans, the company must have a competent and motivated personnel.

Technical and organisational innovations require continuous updates, sometimes changes in professional qualifications and employee behaviour in the work process, modernisation or elimination of some job positions. The changing requirements of job positions necessitate development of specific elements of employees' competences. The organisational progress in the company involves resistance towards changes, therefore, the management staff should ensure trainings that would demonstrate the need for changes and the benefits that may be gained by the organisation and by particular employees.

The main pursuit of enterprises is to improve employee workflow efficiency, and it is determined by having competent employees. Therefore, skilful determination of competences and their development appoints the development direction of human resources in the organisation.

A significant role in the building and development of human resources is played by the organisational culture. It is a set of values, symbols, objectives, beliefs, and attitudes shared by its participants, which shape people's behaviour in organisations and the manner of task implementation (Armstrong, 2011, p. 340; Król & Ludwicyński, 2006, p. 445). The impact of organisational culture on the development of human resources particularly applies to the training organisational culture, which is very significant in formulating the training strategy, identifying the training needs of employees, or approving and motivating to undertake trainings.

The balance between professional work and personal life also has a significant meaning in the development of human capital. Incorrect relations between work and personal life have adverse effects both on the results of the organisation's operations, as well as on the quality of professional and private life of employees. Research results prove that companies investing in balance between work and personal life gain substantial benefits, including: reduction in excessive fluctuation, increase in the level of productivity, creativity, involvement, and satisfaction from work, which improves the financial results and fosters obtaining of a sustainable competitive advantage (Clutterbuck, 2005).

4. Conclusion

Development of human resources in the organisation results from two basic causes. On the one hand, the organisation seeks to flexibly adapt to quick changes in the environment, while on the other hand, employees themselves, in order to increase their position on the labour market, strive to self-improve and increase their own human capital. Creation of a consistent system of human

resource development is extremely important, since it enables professional development of employees in connection with the organisational objectives, all the while raising its effectiveness and creating value added. Furthermore, it contributes to creation of a learning organisation. Organisations of this type are the organisations of the future, since they have knowledge generating competences, which constitute a strategic resource of the organisation.

Bibliography

1. Armstrong, M. (2011). *Zarządzanie zasobami ludzkimi*. Warszawa: Oficyna Wolters Kluwer Business.
2. Bahrami, H. (1996). *The Empowering Flexible Organization*. OECD.
3. Berthel, J., & Becker, F.G. (2007). *Personal-Management: Grundzüge für Konzeption betrieblicher Personalarbeit*. Stuttgart: Schäffer-Poeschel.
4. Clutterbuck, D. (2005). *Równowaga między życiem zawodowym i osobistym. Przewodnik dla specjalistów do spraw personalnych*. Kraków: Oficyna Ekonomiczna.
5. Gierszewska, G., & Wawrzyniak, B. (2001). *Globalizacja, wyzwania dla zarządzania strategicznego*. Warszawa: Poltext.
6. Jabłoński, M. (2009). *Kompetencje pracownicze w organizacji uczącej się. Metody doskonalenia i rozwoju*. Gdynia: C.H. Beck Publishing House.
7. Król, H., & Ludwiczynski, A. (Eds.). (2006). *Zarządzanie zasobami ludzkimi. Tworzenie kapitału ludzkiego organizacji*. Warszawa: PWN.
8. Nonaka, I., & Takeuchi, H. (2000). *Kreowanie wiedzy w organizacji: jak spółki japońskie dynamizują procesy innowacyjne*. Warszawa: Poltext.
9. Pierścionek, Z. (1998). *Strategie rozwoju firmy*. Warszawa: PWN.
10. Pocztowski, A. (2008). *Zarządzanie zasobami ludzkimi. Strategie – Procesy – Metody*. Warszawa: PWE.
11. Strojny, M. (2000). Zarządzanie wiedzą. Ogólny zarys koncepcji. *Przegląd Organizacji*, 2.
12. Szałkowski, A. (Ed.). (2002). *Rozwój personelu*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
13. Tschumi, M. (2011). *Praxisratgeber zur Personalentwicklung*. Zürich: Praxium Verlag.
14. Zorska, A. (1998). *Ku globalizacji? Przemiany w korporacjach transnarodowych i w gospodarce światowej*. Warszawa: PWN.

Chapter 14

Quantitative Methods in Human Capital Management

Anna Lipka

1. Introduction

Quantitative methods in the meaning of formalized methods, whose result of application is expressed numerically, can contribute to objectification, and thereby the professionalization of human capital management (HCM). This is important if:

- there are problems with forecasting the demand for workers with all the negative consequences in the form of excess employment and increased labour costs (which perhaps might be remedied by using Markov Analysis and Cohort Analysis);
- accounting valuations of companies are incompatible with their market values (Gebauer, 2005, pp. 18-23), as human capital is not taken into consideration (this can be prevented by valuating the capital, for example using the Saarbrücken Formula, A. Mayo Human Capital Monitor or Discounted Income Streams Method);
- during work recruitment there are suspicions of nepotism – that could imply lower work efficiency, (such a suspicion could be removed by using such methods as Multiple Criteria Technique of Benefits).

Quantitative methods are of no less importance (like the Hungarian Method) in planning the allocation of workers of different human capital, whose existence is something natural, which already attracted Schultz's attention (2014, p. 183). It is not only the allocation of workers, but also the acquisition for the organisation of appropriate people (with a specified value of human capital) which decides about the following factors:

- achieved economic results,
- the possibility of the occurrence of stress (with its symptoms, whether mental physical or behavioural, in the event of employees experiencing a mismatch between the requirements (of the job) and personal resources of the individual, in particular – their profile of the ability to work (on a given position).

The structure of the study orientated on demonstrating that there are quantitative methods that can be used at all levels of the HCM, i.e. at an operational, tactical and strategic level, is as follows:

- presentation of research methodology,
- short summary of the quantitative method,
- identification of the data collection required for this purpose along with the sources of their acquisition,
- allocation of methods to management levels,
- consideration of the aforementioned methods in terms of different types of competences required of the persons applying these methods.

2. Research methodology

Some of the aforementioned methods had originally other uses than HCM. Some of them can be used – which will also require a clear statement – to solve various problems of HCM, which increases the efficiency of their application (the same inputs with a higher quantity of the results obtained).

A. Mayo Human Capital Monitor and the Hungarian Method were considered jointly due to the desire to carry out an attempt to evaluate the potential of “mixing”/integrating them in order to plan the allocation of workers of varied human capital. The objective is to optimize the allocation in the sense of obtaining the highest possible degree of general fitness for work, i.e. the suitability related to the team, organizational unit or the entire organization, rather than individual people. It is essential to assume that having a certain human capital at one’s disposal and specific tasks to perform, it is better to opt for a smaller sum of possible discrepancies between profiles of employee skills and work requirements than to seek to remove these discrepancies for a particular employee, without paying attention to the whole “space”, which the allocation of human capital concerns.

This corresponds – at least in principle – to the idea of the allocation theory (Buttler, 2014, p. 128), according to which the optimal allocation should be associated with matching the employee with the highest value (level) of human capital to jobs with the highest level of job requirements, and the employee with the lowest value of human capital – to the “least demanding” job. As a result – as Jeruszka puts it (2016, p. 149): “Allocation problem occurs in relation to employees with heterogeneous skills and jobs involving tasks with differing levels of complexity and elaboration”. It was hypothetically assumed that the integration of A. Mayo Human Capital Monitor and the Hungarian Method is possible. What was applied as the verification/research methods was the study of reference books covering the scope of both methods, adequately exemplified.

It was assumed that the competency requirements from individuals using quantitative methods in HCM are objective rather than subjective, i.e. they set aside the characteristics of specific workers and their actual competences. Since they are related to the performance of work, they also are professional by nature. However, it should be checked, what part of them are competences which are:

- transferable (possible to apply in a variety of professional situations),
- specific (related to the performance of specific work, here – to the application of a selected quantitative method),
- hard (functional, specialized, technical),
- soft (hard to verify, not going out of date),
- managerial (enabling effective, qualitatively correct and ethical management).

It was also assumed that the inclusion of a method in a management level shall be determined by two criteria:

- the number of people the method refers to: individuals (operating level), groups of people (tactical level), all staff (strategic level),
- the prospect of time: short term (operating level), medium term (tactical level), long term (strategic level).

3. Quantitative methods – brief outlines

3.1. Markov Analysis

In Markov Analysis (Oechsler, 1987, p. 43) it is assumed that the state of the system at the t_1 time is determined by its state at the t_0 time. When it comes to employees, they can:

- “leave” the system (lay-offs, resignations),
- relocate,
- remain in the same organizational/unit.

Observations over a longer period of time indicate that a certain percentage of staff – (p_{11}), specified with a statistical accuracy, will remain in the A_1 entity, and a certain percentage (p_{12}) will move to the A_2 entity and *vice versa* (p_{22} ; p_{21}). The general matrix form of the probability of transitions (p) to other organizational units is as follows (1):

$$p = \begin{vmatrix} p_{11} & p_{12} \\ p_{21} & p_{22} \end{vmatrix} \quad (1)$$

which means that the sum of lines in the matrix equals one.

The data necessary for the application of the method include:

- the employee numbers on a given day in organizational units,
- the number of people moving between the entities (according to the so-called historical matrix),
- the number of movements within the entities (promotions, demotions),
- the number of lay-offs and resignations,
- the desired state of personnel in the organizational units that takes into account the strategy of the organization.

And thus the necessary competences derive, among other things, from the ability to search and use them in order to carry out essential calculations and formulate appropriate conclusions. The method can be used for the quantitative forecasting of a demand for workers (qualitative forecasting would forecast future job requirements). It can apply to a certain group or all employees (tactical or strategic level), but definitely a long time prospect. This determines its qualification as strategic management level.

3.2. Cohort Analysis

Cohort Analysis was originally used in demography (when constructing the so-called life tables), however, the universal process of people leaving cohorts (the collective entities created at a given time), i.e. dynamic changes in its composition, resulted in widening its scope

of application, also by HCM. In the so-called cohort table capturing the frequency distribution of the leaving (due to natural, loyalty-oriented and other causes) and remaining members of cohort (created at a given time):

- in a prospective cohort or a retrospective cohort – reconstructed from documentation – the data is placed in the following way (Balicki, 1986, pp. 43-51):
 - a completed internship,
 - the number of workers leaving with a given internship,
 - the percentage of workers leaving,
 - the cumulative percentage of workers leaving,
 - the percentage of workers staying.

The cohort table is complemented by a graphical representation of the so called cohort survival curve, presenting the relationship between the passage of time and the percentage of the remaining employees (at the beginning this percentage is 100%). In addition, you can determine the so called cohort half-life (*half-life of the group*), as well as calculate the so-called survival indicators (quotients of the number of employees with a certain length of service in the company and cohort numbers) or loss (complement of the survival indicator to 100%) (Balicki, 1997, p. 62).

The results of the application of the method refer to the use of appropriate motivators or de motivators as part of personnel marketing:

- stabilisation (when the pace of leaving the cohort is excessive),
- external (when vacancies need to be filled),
- derecruitment (when the possibilities of employee exchange due to an excessive stabilization of employment are too low).

These directions of its application identify the usefulness of this method for HCM at the strategic level. Their application requires confronting the results of cohort analysis (appropriately interpreted) with the knowledge about the company, its strategy, structure and organizational culture.

3.3. Saarbrücken Formula

The Saarbrücken Formula (Scholz & Bechtel, 2005; Scholz, Stein & Bechtel, 2006) connects the cost approach with the market and indicator approaches. It has the following formula (2):

$$HC = \sum [(FTE * l_i * (w_i : b_i) + PE) * M_i] \quad (2)$$

where:

- HC – human capital value,
- i – workers groups highlighted due to their specific characteristics, for example the profession performed or belonging to the organizational unit,
- FTE – the number of full-time employees (Full-Time-Equivalents),
- l_i – market wage levels for group i,
- w_i – the average time of knowledge being up-to-date in the industry,
- b_i – the average length of service,
- PE – expenditure on staff development,
- M_i – index of staff motivation.

Due to the fact that it may affect groups of workers (before the parentheses in the formula (2), a sum and indexes relating to the numbers of groups may be put), it should be assigned to the management on the tactical level.

3.4. Discounted Income Streams Method

In the discounted income streams method (the discounted cash flows method) (Flamholtz, 1985) the value of the employee is determined on the basis of the data related to the following:

- the date of their recruitment and position,
- the expected career path,
- the average period of employment with the company,
- the likelihood of promotion to hierarchically higher positions in the following years,
- the probability of the employee leaving the company before the end of the subsequent years,
- annual cash flows in positions on their career path,
- the value of the discount rate.

Taking into account the criteria, adopted in the research methodology, aiming to assign methods to management levels, this method must be assigned to the operational level.

3.5. A. Mayo Human Capital Monitor and the Hungarian Method

In the A. Mayo Human Capital Monitor, the value of human capital (HC) is calculated in the following way (Mayo, 2001, p. 65) (3):

$$HC = EC * (IAM:1000) \quad (3)$$

where:

EC (*Employment Cost*) – costs incurred in connection with recruitment of an employee,
IAM (*Individual Asset Multiplier*) – individual multiplier of value.

A. Mayo human capital monitor is used for the valuation of the capital of individual employees, which determines its application at the operating management level.

IAM value is determined by (Mayo, 2001, p. 79):

- abilities,
- potential,
- contribution to the creation of value,
- coherence of the value of employees and the value of the organizational culture, defined in the scale as:
 - deficit (0.5),
 - balance (1.0),
 - excess (1.5),
 - substantial surplus (2.0).

In other words, one could say that in this method of the valuation of human capital, there are ratios used in the form of decimal numbers. It is therefore necessary to transform them (keeping the proportions between the coefficients), which may take the form given in Table 1.

Table 1. The transposition of the coefficients in Mayo Human Capital Monitor to the smallest possible integers

Current coefficients	0.5	1.0	1.5	2.0
Coefficients upon transposition	1.0	2.0	3.0	4.0

Source: own work.

Table 2 shows an example of matrix A_0 with such coefficients. The element with the highest value is 4. If the values of all the utility coefficients in matrix A_0 are subtracted, then – in accordance with the algorithm of the Hungarian Method (Oechsler, 1987, pp. 47-51) – matrix A_1 is obtained (Tab. 3).

Table 2. Valuation matrix A_0

Employee/job	I	II	III	IV	V
A	2	2	2	1	1
B	3	4	3	1	2
C	2	1	3	2	3
D	3	3	2	2	3
E	1	1	3	3	2

Source: own work.

Table 3. Valuation matrix A_1

Employee/job	I	II	III	IV	V
A	2	2	2	3	3
B	1	0	1	3	2
C	2	3	1	2	1
D	1	1	2	2	1
E	5	3	1	1	2
v_j	1	0	1	1	1

Source: own work.

If the element with the lowest value (column v_j) is subtracted from each element in the matrix A_1 , the matrix A_2 (Tab. 4) is obtained.

Table 4. Valuation matrix A_2

Employee/job	I	II	III	IV	V	u_i
A	1	2	1	2	2	1
B	0	0	0	2	1	0
C	1	3	0	1	0	0
D	0	1	1	1	0	0
E	2	3	0	0	1	0

Source: own work.

The number of zero vectors (4) in the matrix A_2 is not equal to the number of searched allocations (5), so the elements with the lowest values in the line (u_j) are subtracted from all of the items in this matrix to receive matrix A_3 (Tab. 5).

Table 5. Valuation matrix A_3

Employee/job	I	II	III	IV	V
A	0	1	0	1	1
B	0	0	0	2	1
C	1	3	0	1	0
D	0	1	1	1	0
E	2	3	0	0	1

Source: own work.

Zero vectors in the matrix A_3 are: columns: the first, the third and the fifth, and lines: the second and the fifth. Therefore, the number of zero vectors is equal to the number of searched allocations and so, matrix A_3 presents the optimal allocation. If the number of zero vectors was lower, then it would be necessary to search in matrix A_3 for the lowest value element apart from the zero vectors, and then:

- subtract it from the values of the coefficients in matrix A_3 , in the case of elements outside the zero vectors,
- add it to the values of the coefficients in matrix A_3 , which lie at the intersection of the zero vectors,
- leave the values of the coefficients unchanged in other cases.

A_3 matrix shows that the employee E shall be allocated position IV, whereas the employee B – position II. When it comes to other allocations, they are equivalent for the two possible variants, X and Y (cf. Tab. 6).

Table 6. Equivalence of allocations X and Y

Employee	Allocation X	Allocation Y
A	I	III
B	II	II
C	III	V
D	V	I
E	IV	IV
General fitness	15	15

Source: own work.

The general value of fitness (15) for these variants is higher than random allocation (e.g., employee A – job I, employee B – job II, employee C – job III, employee D – job IV, employee E – job V, which makes the value of general fitness equal to 13).

It follows from the foregoing that the Hungarian mMethod, also in combination with A. Mayo Human Capital Monitor may be applied to groups of employees, and therefore on the tactical level of management.

3.6. Multiple Criteria Technique of Benefits

It may be used in the selection process (Edwards & Newman, 1982; Mueller & Nachreiner, 1988; Lipka, 1996) at the operating level. Its starting point is determining the general criteria for the valuation of candidates to work on the basis of the work requirement profile for the job. The general criterion which is valued the lowest by experts is assigned a point-based weight of 10, whereas the other criteria – a multiple of ten, depending on the meaning attributed to them. Then all the general criteria are “broken down” (taking into account the principle of severability and exhaustiveness) into specific criteria. Each specific criterion specified under the general criterion is assigned a weight of 10 (in the case of a specific criterion which is valued the lowest /least important by experts) or its multiple. If the above is provided in the form of a so called valuation criteria tree, then you will see horizontal and vertical links between all the criteria.

This method is not only a graphic one, but also a quantitative one, as:

- point-based weights of all criteria, being a multiple of 10, are transformed into normalized weight, falling within the scale from 0 to 1;
- all candidates are valued according to the data from the documents/presented knowledge or skills in the following way: criterion rating = normalized weight multiplied by 100 (when the valuation criterion is fulfilled) or by 0 (if it is not fulfilled);
- it evaluates the overall benefit of leaving each candidate after the selection by aggregating ratings obtained by them for each of the criteria;
- the person who is chosen is the one for whom the benefit of leaving them in the organisation after the selection is the best.

4. Conclusion

The connection of the methods discussed herein with management hierarchy is presented in Table 7, while Table 8 contains a specification of the types of competencies required of the individuals using these methods. Their use requires the acquisition of data from experts, employees (surveys), human resources (documentation – periods of employment, employee diagnostics) and controlling (data concerning costs) and from entities representing the highest levels of management (strategic data).

Table 7. Quantitative methods for human capital and the corresponding management levels

Quantitative Method	Operating Level	Tactical Level	Strategic Level
Markov Analysis			X
Cohort Analysis			X
Saarbrücken Formula		X	
Discounted Income Streams Method	X		
A. Mayo Human Capital Method	X		
The Hungarian Method combined with A. Mayo Human Capital Monitor		X	
Multiple Criteria Technique of Benefits	X		

Source: own work.

Table 8. Competency requirements of individuals using quantitative methods in human capital management

Quantitative Method	Types of Required Competences
Markov Analysis	<ul style="list-style-type: none"> – the ability to search for the appropriate historical staffing data (a); – the ability to analyze strategic documents (b); – the ability to perform simple mathematical calculations or use suitable software (c); – the ability to formulate conclusions concerning the required recruitments or dismissals (d).
Cohort Analysis	<p>the ability to search for appropriate staffing data (current or historical) (e);</p> <ul style="list-style-type: none"> – the ability to perform simple mathematical calculations or use suitable software (c); – the ability to develop graphical presentation (f); – the ability to formulate conclusions about how to motivate (employees, job candidates) or demotivate (employees) (g).
Saarbrücken Formula	<ul style="list-style-type: none"> – knowledge about aggregation (h); – the ability to convert part time jobs to full time jobs; – the ability of the basic analysis of the remuneration market (i); – the ability to search for essential current staffing data (j); – knowledge about the industry and its pace of progress (k); – the ability to analyze training costs data (l); – the ability to conduct and interpret the results of surveys carried out on the basis of ready-made questionnaires (3); – the ability to perform simple mathematical calculations or use suitable software (c).
Discounted Income Streams Method	<ul style="list-style-type: none"> – the ability to search for current and historical staffing data (e); – the ability to find the selected data concerning the financial market and the finance of the company (m); – the ability to obtain the specified data from experts within the company (n); – the ability to search for adequate strategic data (o); – the ability to perform simple mathematical calculations or use suitable software (c).
A. Mayo Human Capital Monitor	<ul style="list-style-type: none"> – the ability to evaluate the profile of fitness for work in the context of the profile of job requirements (p); – the ability to evaluate the potential of the employee in view of the dynamics of job requirements (r); – the ability to assess the significance of the effects of the employee's performance at work (s); – the ability to identify the hierarchy of values in the organizational culture (š); – the ability to determine the employee's hierarchy of values (t); – ability to calculate the costs incurred in connection with the employment of the employee (s); – the ability to perform simple mathematical calculations or use suitable software (c).

The Hungarian Method	<ul style="list-style-type: none"> – analytical skills (in); – the ability to apply a simple mathematical algorithm (c).
Multiple Criteria Technique of Benefits	<ul style="list-style-type: none"> – knowledge of the characteristics of the jobs that are vacant (x); – the ability to determine the most important selection criteria (s); – the ability to interact with experts (n); – the ability to analyze documents of job candidates or use appropriate computer programmes (z); – the ability to perform simple mathematical calculations or use suitable software (c).

Source: own work.

As shown in Table 7, the thesis placed at the outset, was appropriately developed. As presented in Table 8, the competency requirements in the case of:

- Markov Analysis – are hard competence, both transferable (competence c – Tab. 8), and specific (a, b, d), and one of them (d) is a management competence by nature,
- Cohort Analysis – are hard competence, partly transferable (c, f), and (e) partly specific, complementary to the management competence (g),
- Saarbrücken Formulas – are part of a set of hard competencies, non – transferable (except h and c) and do not include management competences,
- Methods of Discounted Income Streams, A. Mayo Human Capital Monitor and Multiple Criteria Technique of Benefits – are specific and only in one case (c) – transferable; hard and non-management competences,
- Hungarian method – they are without exception transferable, hard and non-managerial.
- In addition to the abovementioned competence, the use of quantitative methods in HCM requires high conscientiousness in the sense of a personality trait (Pervin & John, 2002, p. 289).

Bibliography

1. Balicki, A. (1986). *Statystyczne metody badania płynności kadr. Mierzenie i normowanie. „Rozprawy i monografie”* (Vol. 69). Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego.
2. Balicki, A. (1997). Zastosowanie metod analizy kohortowej do badania czasu pozostawania bez pracy. *Wiadomości Statystyczne*, (7).
3. Buttler, D. (2014). Niedopasowanie kompetencyjne i kwalifikacyjne absolwentów Uniwersytetu Ekonomicznego w Poznaniu. *Edukacja Ekonomistów i Menedżerów*, 2(32), 127-141.
4. Edwards, W., & Newmann, J.R. (1982). *Multiattribute Evaluation*. Beverly Hills: Sage.
5. Flamholtz, E.G. (1985). *Human Resource Accounting. Advances in Concepts, Methods and Applications*. San Francisco: Jossey-Bass Inc.
6. Gebauer, M. (2005). *Unternehmensbewertung auf der Basis von Humankapital*. Lohmar-Koeln: Josef Eul Verlag.
7. Jeruszka, U. (2016). *Kompetencje. Aspekty teoretyczne i praktyczne*. Warszawa: Difin.
8. Lipka, A. (1996). Technika korzyści. Jak zminimalizować ryzyko błędnej oceny kandydata do pracy? *Personel*, (7).
9. Mayo, A. (2001). *The Human Value of the Enterprise. Valuing People as Assets. Monitoring, Measuring, Managing*. London: Nivcholas Brealey.

10. Müller, G.F., & Nachreiner, F. (1988). Zur Anwendung der multi-attributiven Nutzentechnik bei der Personalauswahl. *Zeitschrift für Personalforschung*, (2).
11. Oechsler, W.A. (1987). *Personal und Arbeit. Einführung in die Personalwirtschaft*. Muenchen-Wien: Oldenbourg.
12. Pervin, L.A., & John, O.P. (2002). *Osobowość. Teoria i badania*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
13. Scholz, Ch., & Bechtel, R. (2005). Zehn Nutzen der Saarbrücker Formel. *Personalwirtschaft*, (11).
14. Scholz, Ch., Stein, V., & Bechtel, R. (2006). *Human Capital Management. Wege aus der Unverbindlichkeit*. München/Unterschleißheim.
15. Schultz, T.W. (2014). *Ekonomia kapitału ludzkiego*. Wstęp do wydania polskiego – Leszek Balcerowicz. Warszawa: Oficyna Wolters Kluwer business.

Chapter 15

Young Human Capital Management: Croatian and Polish Case

Ana Trusić, Ivana Fosić, Jelena Franjković

1. Introduction

Traineeship, apprenticeship, internship and student job programmes are not identical concepts, but their contribution to participant's knowledge and organisational intellectual capital is quite similar. Those programs provide effective learning and experience for students and young entrants in the labour market ensuring them application of theoretical knowledge and further practical knowledge, skills and competencies development. That should be the first opportunity for young people to work and earn some money in the profession they have chosen. Traineeship and apprenticeship imply existence of mentor or supervisor (it can be on-job and off-job) and some training contract which usually results with nationally recognised qualification. The difference between two mentioned programmes is that traineeship is used for more specific job and it is not necessarily paid although it usually is. Apprenticeship is paid and it is obligatory in some countries or it is precondition for some workplaces but it provides knowledge and experience in general fields. Apprenticeship lasts longer than traineeship and internship (apprenticeship 1-3 years, traineeship and internship few weeks – six months) and its diploma or certificate is usually required for different crafts or technical jobs. As well as traineeship, internship does not have to be paid and is more common practice among university/college students. They receive some stipend or small salary and additional inscription in their CV. All programmes can be part-time, full-time or done in specific agreed conditions when students are still at school or faculty.

The aim of this paper is to investigate representation, frequency, conditions, duration and compensation in traineeship/internship/apprenticeship process with particular emphasis on Croatian and Polish human capital. It should be noted that research carried out by European Commission observes and examines traineeship and internship as same concepts due their similarity.

2. Literature

Macroeconomics and government are undoubtedly starting point in creating effective cooperation between education and industry. Aggressive apprenticeship system is the answer to better job (Lerman, 2016) and corporatist solution to the problem of skilled workers (Bilginsoy, 2007) so organisations that implement it are expecting future qualified workers (Smits, 2006). "In Croatian Vocational Education and Training system there is an apprenticeship scheme that is implemented from the school year 2004-2005 and only in three-year vocational education and training program for crafts, commonly known as Unified Model of Education (UME)" (*Apprenticeship-type... (Croatia)*, 2014, p. 2). This system is constantly going through changes but participants have status of regular students who need to find their business workshop on their own. In year 2013/2014 there were 10,560 apprenticeships in Croatia and they were financed from the State Budget ("...The award will be paid in a certain percentage of the average net salary in the previous year in the Croatian economy: in the first year of apprenticeship 10%; in the second year of apprenticeship 20% and in the third year of apprenticeship 25%") (*Apprenticeship-type... (Croatia)*, 2014, p. 8). In Poland apprenticeship programmes are more advanced. There are four different apprenticeship systems: apprenticeship (dual system), alternance training (dual system), on the job training and WBL integrated in a school-based programme (*Apprenticeship-type... (Poland)*, 2014). In his study (2016), Basole suggests that family-based apprenticeships are the best option so they should be at least integrated with certificate systems while they reduce costs and produce highly skilled human capital. On the other hand, that option should not be exclusive because organisations without apprentices are less likely to hire apprenticeship graduates trained elsewhere (Mohrenweiser, 2016). Mueller and Schweri (2015) studying apprenticeship found high inter-firm and low occupational mobility within one year after graduation and they concluded that "occupation-specific human capital is an important component of apprenticeship training and that skills are highly transferable within an occupational field" (p. 1057). Ultimately, many educational experts such as Muehleemann (2016) stand out Swiss apprenticeship system as the best option with high training standards. However, Oliver (2014) found out that lower level qualifications offer distinctive benefits to young human capital provided they do not have an alternative viable pathway into higher study or training.

While apprenticeship is applicable mostly during and after secondary education, traineeship and internship in Croatia and Poland are more common in tertiary education and after graduating. "Traineeships involve a shorter period of training, generally less than two years, and are geared mainly towards occupations in the growing service sector. Traineeships often, though not necessarily, place less emphasis on off-the-job training" (Oliver, 2010, p. 100). Although government has huge role in connecting academia with industry, organisations also need to take responsibility for building qualified and trained employees. This initiative is more important for traineeship and internship because they are rarely required and prescribed by law. One research in Australian retail industry showed that motivation for traineeship implementation in organisation originates firstly from desire for "prestige and glamour" and secondly from perception that traineeship is useful recruitment tool for supplying the workforce in a tight labour market (Ingersol, 2008). Unfortunately, only in exceptional cases internships serve as a credible signal of (prospective) employees' abilities (Frick & Maihaus, 2016).

Results of training programmes should be obvious as positive outcomes such as good working conditions (working hours, organisational relations etc.), quality assurance, adequate material

compensation and the recognition of qualifications. While those aspects are quite measurable, it is difficult to measure achieved or improved skills so many authors are concerned about sketchy training programmes (Maskooki, 1998; Garris et al., 2008; Lancy, 2012; Fuller, 2016). However, in some industries, such as technical and medical activities it is much easier to see direct skill progress than in others. Some researches show that traineeship can directly shape skills (Moran et al., 2012; Jerg et al., 2016) but others neglect supervisors' influences on the learning process especially in international traineeship where socio-cultural differences between students and supervisors disturbs effective learning (Niemantsverdriet et al., 2005). Therefore, in developing skills, university supervisor's role is very important (Kaseorg & Pukkonen, 2015). "Skill formation and development is an important issue within employment relations, as it affects all of the stakeholders and has clear links with ensuring technological advancement and international competitiveness" (Ingersol, 2005, p. 73). Despite that, many organisations offer to their trainees routine activities without any challenging tasks that could fully exploit their human capital (Arcidiacono, 2015). Nevertheless, internship experience has a positive and significant impact on starting salary (Fuller & Schoenberger, 1991).

It is understood that tangible charges for traineeship/internship/apprenticeship participants are far less than wages of regular employees (Göggel & Zwick, 2012) but it is not proven that this has negative impact on individual's decision to start some of training programmes. Simply it is generally accepted that training wages are small in every country and almost nobody expects them to be high. Hereof, other factors shape individual's intention and further decision. According to Oliver (2010), modern awards have small negative impact on the wage arrangements for apprenticeships. Walker et al. (2013) wrote about importance of psychological contract that consist of mutual obligations between employers and apprentices/trainees. It is „one way of examining the expectations between apprentices/trainees and their employers. The psychological contract relates to the unwritten but often powerful aspects of the employment relationship that affect the parties' expectations and satisfaction" (Walker et al., 2013, p. 67). They believe it can manage expectations and show discrepancies if they exist. Apprentices leave their training contracts more often for job-related than training related reasons (Karmel & Misko, 2009) but Bessey and Backess-Gellner (2015) in analysing revisions of youth's educational choices pointed out that financial incentives are significant determinants of dropout decisions.

Apprenticeships and traineeships lead to positive graduate employment outcomes and career pathways also for adults with disabilities (Cocks et al., 2015) but unfortunately they have low participation rate in traineeships and apprenticeships. Apart from material compensations, their need for belonging and sense of usefulness is even more important than it is for other people. Therefore, is it necessary to start removing all obstacles for discrimination so giving more opportunities for apprenticeships and traineeships for adults with disabilities is a good start for their long-term embedding on labour market.

3. Methodology

Secondary research was conducted based on the European Commission database¹, Flash Eurobarometer Report 378 – The Experience of Traineeships in the EU and Eurostat database². Young EU citizens (18-35) were interviewed in European Commission database for the purpose of this study in 2013. Although Croatia still was not the part of European Union in the time of research (April-May 2013) it was included in the research because a few months later Croatia became a full EU member state. Eurostat database observes young EU citizens from 15 to 34 years with the latest data from 2015.

4. Results and discussion

There are 162.022 students in Croatia and 1.665.305 students in Poland who are enrolled in tertiary education³ and 46.204 in Croatia and 350.292 in Poland new entrants with upper secondary education⁴. 64.8% of young (15-24 years) in Croatia and 69.2% in Poland in 2015 were in some process of formal education and training, and about one third in each country was in some process of informal education and training⁵.

The fact that almost half (46%) young people in EU have had traineeship should not be neglected, but according to European Commission database (*Flash...*, 2013) the worrying data is that one third of young people in European Union (18-35) had none experiences in traineeship, internship, apprenticeship or student job and of those who had, around two thirds have not had a traineeship after the end of their studies. Unlike Cyprus and Netherlands where traineeship is the most popular, Croatia is far below EU average so only 22% have had some traineeship experience. Still, 42% took apprenticeship and 29% have had student job but 26% had none experience in mentioned programmes. The situation in the Poland is even worse so 41% of Polish youth had none experience in traineeship, internship, apprenticeship or student job.

The traineeship in EU is more common among university graduate students at the age 25-29 and most of them have had only one traineeship. However, 22% had more than 3 traineeships. 53% of respondents with traineeship experience in Croatia had only one traineeship, 22% 2 traineeships, 15% 3 traineeships and 9% more than 3 traineeships. 66% of respondents with traineeship experience in Poland had only one traineeship, 19% 2 traineeships, 9% 3 traineeships and 6% more than 3 traineeships. After finishing their studies, 36% of Polish students have at least 1 traineeship while Croatian data is much higher and it is around 60%. That is interesting data especially compared to Netherlands (79% of respondents have had some traineeship) where only 5% of respondents had traineeship after finishing their studies, but that only means that they apply

¹ See: FL378 Volume A, FL378 Volume AA, FL378 Volume B_v3.

² See: edat_lfse_19, edat_lfse_22, educ_uoe_enrt02, educ_uoe_ent01, ei_lmhr_m, trng_aes_186, trng_aes_196, trng_cvts01.

³ See: Eurostat, educ_uoe_enrt02, 2015.

⁴ See: Eurostat, educ_uoe_ent01, 2015.

⁵ See: edat_lfse_19.

this practice during university study so their labour market receives “final product” immediately after graduation.

Almost 90% of respondents in EU had not had traineeship abroad (87% of Croats and Poles never had traineeship abroad). Its cause is almost unclear – respondents are simply not interested or do not consider it at all (53%). Only lower percentage has pleaded that there are not enough financial resources or they are not well-informed about traineeship abroad. About one quarter of Croats and Poles stated they are not well-informed about traineeship abroad, while 10% of Croats and 15% of Poles have problem with foreign language. Just because 79% of EU youth with traineeship abroad experience stated that it had improved their foreign language, Croats and Poles should go abroad despite their language problems. 69% of EU youth with traineeship abroad experience declared they considered staying and working in another country. Although student mobility should be strongly encouraged in every county, such intentions should not be a guidelines in countries where immigration of young people is in progress. Traineeship in Europe mostly last up to three months (66%). Only 15% of EU respondents had traineeship for more than 6 months and this average raises thanks to Croatia where 38% had traineeship that lasted more than 6 months. “Traineeships are evenly spread across different sized organisations” (*Flash...*, 2013, p. 35) in Croatia and Poland as well as the whole EU.

In European Union “six out of ten respondents did not receive any financial compensation during their last (*i.e.* most recent) traineeship (59%)” (*Flash...*, 2013, p. 4). Poland is on 2nd place in paying traineeships so 70% of their respondents were paid during their traineeship. In Croatia only one half of traineeships were paid. More than a half of EU respondents say that received financial compensation was not sufficient to cover basic living cost such as food and rent. Dissatisfaction with compensations was confirmed by 49% Croats and 68% Poles. 46% of all EU respondents stated that advertisement was not clear about payment (58% in Croatia). One third of EU respondents and 43% of Croatian and Polish respondents had not signed any agreement with the organisation where they completed their traineeship. Positive side is that around three quarter of EU and Polish respondents were covered by insurance during their traineeship, but 36% in Croatia were not.

Other than material compensations, traineeship participants were quite satisfied with other working conditions. 80% of them said they were treated like other regular employees in terms of equipment, working hours, workload, etc. Croatia reaches the same percentage, even though 30% of Polish respondents totally disagree with the statement that their working conditions were equivalent to those of other employees. Nine in ten traineeship participants confirmed that their mentor helped them and explained them their work which means that mentoring system is unquestionable in whole EU, as well as in Croatia and Poland. Same percentage agrees about usefulness for their profession. The highest percentage of disagreement in EU was recorded in Poland where 21% of respondents think they did not learn thing that could be useful professionally.

Although 71% of EU citizens with traineeship experience were not offered by employment contract, the same percentage believe their most recent traineeship was or will be helpful for them to find a regular job. Database shows the exact same percentage in Croatia, but rather small percentage in Poland. 43% of Polish traineeship participants think that traineeship experience did not or will not help them in finding a regular job. That percentage leaves them on the bottom of the ladder. In spite of their perception and further judgement, the fact is that after traineeship programme one in four participant is offered by employment contract or extension of their traineeship. 34% of EU respondents did not receive any certificate or letter of reference and in Croatia

even more (40%). Interestingly, 83% of Poles received some certificate or letter of reference which is the highest percentage especially interesting comparing to Netherlands or France (twice less participants get certificate or letter of reference) where respondents are highly satisfied with their traineeship programmes so they attend traineeship programmes more frequently.

Harmonised unemployment rate of all active population (according to ILO definition) in Croatia in December 2016 was 12.2% and in Poland 5.9%⁶. For people under 25 years this percentage in Croatia is 31.9% and in Poland 17.9%. 18.5% of them in Croatia are not a part of neither formal nor non-formal education and training (in Poland 11%)⁷ so they should be target meta for traineeship programmes. Although unfortunately there are no more recent data, 10 years ago around 80% of Croatians and Poles stated they never have even looked for information on learning possibilities or traineeship and only 1-2% have looked but did not find those information⁸. Taken into consideration today's possibilities and availability of all necessary sources, information are accessible more than ever before. This simply, lack of interest for lifelong learning is shown by answers of Eurostat research participants: 83% in Croatia and 88% in Poland said they just "did not want to participate in any education or training"⁹. Nevertheless, criticism should not be addressed only to individuals, but also organisations and whole system. 57% of organisations in Croatia in 2010 were offering some training programmes, while this percentage in Poland is only 22%. In Croatia, training is most common in information and communication, financial and insurance activities, real estate activities, professional, scientific and technical activities, administrative and support service activities, arts, entertainment and recreation. Information and communication, financial and insurance activities in Poland also recognized the importance of training concepts, but that is not a case for construction, wholesale and retail trade, transport, accommodation, food service activities and all other industries¹⁰.

5. Conclusion

In their training programmes Poles are mostly paid, they receive certificate or letter of reference, they are generally satisfied but concerned it will help them in finding a regular job. Croatians are also bypassing training programmes partly due to financial dissatisfaction but the biggest problem in both countries is lack of interest. Obviously, formally written confirmation is much less important than usefulness of learning new things that are professionally crucial.

Apprentices and trainees who are more productive are less likely to get unemployed or they have a lower unemployment duration and a lower risk of long-term unemployment (Mohrenweiser & Zwick, 2015). That proves that training programmes do not guarantee the job after attending but they provide an opportunity to stay in organisation where the programme took part, to receive recommendation for other organisations or simply the boost to start an own business. From organisational point of view those concepts increase organisational competitiveness by bringing

⁶ See: Eurostat, ei_lmhr_m, 2016.

⁷ See: Eurostat, edat_ifse_22, 2015.

⁸ See: Eurostat, trng_aes_186, 2007.

⁹ See: Eurostat, trng_aes_196, 2007.

¹⁰ See: Eurostat, trng_cvts01, 2010.

an opportunity to choose and create future loyal and committed employees. In countries with long-term unemployment such as Croatia and Poland, it is more difficult to be re-employed and there is great number of people searching for new career. Therefore, training programmes should not present just a career development for transition into employment, but also effective pathways in changing career. Organisations should encourage their human capital enhancing programme attractiveness and improving visibility in real working process.

Bibliography

1. *Apprenticeship-type Schemes and Structured Work-based Learning Programmes*. (2015). Retrieved on 15/03/2017, from: https://cumulus.cedefop.europa.eu/files/vetelib/2015/Refer-Net_HR_2014_WBL.pdf.
2. Arcidiacono, D. (2015). Internship and Employability of Graduates in a “Glocal” Context. *Sociologia del Lavoro*, 137, 58-76.
3. Basole, A. (2016). Informality and Flexible Specialization: Apprenticeships and Knowledge Spillovers in an Indian Silk Weaving Cluster. *Development and Change*, 47(1), 157-87.
4. Bessey, D., & Backes-Gellner, U. (2015). Staying Within or Leaving the Apprenticeship System? Revisions of Educational Choices in Apprenticeship Training. *Jahrbucher fur Nationalokonomie und Statistik*, 235(6), 539-52.
5. Cocks, E., Thoresen, S.H., & Lee, E.A-L. (2015). Pathways to Employment and Quality of Life for Apprenticeship and Traineeship Graduates with Disabilities. *International Journal of Disability, Development & Education*, 62(4), 422-437.
6. *European Commission database* (FL378 Volume A, FL378 Volume AA, FL378 Volume B_v3). Retrieved on 14/03/2017, from: <http://ec.europa.eu/eurostat/data/database>.
7. *Flash Eurobarometer Report 378 – The Experience of Traineeships in the EU*. (2013). Retrieved on 14/03/2017, from: http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_378en.pdf.
8. *Eurostat Database* (edat_ifse_19, edat_ifse_22, educ_uoe_enrt02, educ_uoe_ent01, educ_uoe_mobg01, educ_uoe_mobs01, educ_uoe_mobs02, ei_lmhr_m, trng_aes_186, trng_aes_196, trng_cvts01). Retrieved on 14/03/2017, from: <http://ec.europa.eu/eurostat/data/database>.
9. Frick, B., & Maihaus, M. (2016). The (Ir-)relevance of Internships. *Betriebswirtschaft/Business Administration Review*, 76(5), 377-88.
10. Fuller, A. (2016). The Growth of Apprenticeship in England: Doubts Beneath the Numbers. *Challenge*, 59(5), 422-433.
11. Fuller, R., & Schoenberger, R. (1991). The Gender Salary Gap: Do Academic Achievement, Internship Experience, and College Major Make a Difference? *Social Science Quarterly*, 72(4), 715-26.
12. Garris, R., Madden, J., & Rodgers, W.M., III. (2008). Practitioners’ Roles, Internships, and Practicum Courses in Public Policy and Management Education. *Journal of Policy Analysis and Management*, 27(4), 992-1003.
13. Goggel, K., & Zwick, T. (2012). Heterogeneous Wage Effects of Apprenticeship Training. *Scandinavian Journal of Economics*, 114(3), 756-779.
14. Ingersoll, L. (2008). Employer Strategic Choice and Traineeships in the Retail Industry. *International Employment Relations Review*, 14(2), 56-73.

15. Jerg, A., Öchsner, W., Wander, H., Traue, H.C., & Jerg-Bretzke, L. (2016). The FAMULATUR PLUS as an Innovative Approach for Teaching Physical Examination Skills. *GMS Journal for Medical Education*, 33(1), 1-11.
16. Karmel, T., & Misko, J. (2009). Apprenticeships and Traineeships in the Downturn. *Adelaide: NCVER*.
17. Kaseorg, M., & Pukkonen, L. (2015). Roles and Satisfaction During Internship Program in Estonian Universities. *Scientific Annals of the 'Alexandru Ioan Cuza' University of Iasi*, 62(1), 23-36.
18. Lancy, D.F. (2012). "First You Must Master Pain": The Nature and Purpose of Apprenticeship. *American Anthropological Association*, 33(2), 113-126.
19. Lerman, R.I. (2016). Reinvigorate Apprenticeships in America to Expand Good Jobs and Reduce Inequality. *Challenge*, 59(5), 372-389.
20. Maskooki, K., Rama, D.V., & Raghunandan, K. (1998). Internships in Undergraduate Finance Programs. *Financial Practice and Education*, 8(2), 74-82.
21. Mohrenweiser, J., & Zwick, T. (2015). Youth Unemployment After Apprenticeship Training and Individual, Occupation, and Training Employer Characteristics. *Jahrbucher fur Nationalokonomie und Statistik*, 235(4-5), 418-32.
22. Mohrenweiser, J. (2016). Recruitment and Apprenticeship Training. *Industrielle Beziehungen*, 23(1), 6-24.
23. Moran, A.M., Nancarrow, S.A., Wiseman, L., Maher, K., Boyce, R.A., Borthwick, A.M., & Murphy, K. (2012). Assisting Role Redesign: A Qualitative Evaluation of the Implementation of a Podiatry Assistant Role to a Community Health Setting Utilising a Traineeship Approach. *Journal of Foot & Ankle Research*, 5(1), 30-42.
24. Muehleemann, S. (2016). Making Apprenticeships Profitable for Firms and Apprentices: The Swiss Model. *Challenge*, 59(5), 390-404.
25. Mueller, B., & Schweri, J. (2015). How Specific is Apprenticeship Training? Evidence from Inter-firm and Occupational Mobility after Graduation. *Oxford Economic Papers*, 67(4), 1057-77.
26. Niemantsverdriet, S., Van derVleuten, C.P., Majoor, G.D., & Scherpbier, A.J. (2005). An Explorative Study into Learning on International Traineeships: Experiential Learning Processes Dominate. *Medical Education*, 39(12), 1236-1242.
27. Oliver, D. (2010). Modern Awards and Skill Development through Apprenticeships and Traineeships. *Economic and Labour Relations Review*, 21(2), 99-119.
28. Oliver, D. (2014). Lower-level Qualifications as a Stepping Stone for Young People. *Australian Journal of Labour Economics*, 17(1), 15-33.
29. Smits, W. (2006). The Quality of Apprenticeship Training. *Education Economics*, 14(3), 329-44.
30. Walker, A., Smith, E., & Kemmis, R.B. (2012). The Psychological Contract in Apprenticeships and Traineeships: Comparing the Perceptions of Employees and Employers. *International Employment Relations Review*, 18(1), 66-81.

Chapter 16

Creativity – Identification and Measurement¹

Agnieszka Giszterowicz

1. Introduction

The first map of creative industries was created in 1998 in the United Kingdom. Then, it turned out that the industries were 8% of the total economic activity and employed about 7-8% of working population. A re-mapping took place in 2001, to finally lead, two years later, to an identification of 13 elements of this sector, which pointed to the two main branches of creative economy, i.e. the traditional cultural industries and the new, knowledge-based sectors that had sprung from them. The sectors of advertising, architecture, art and antiques, handicrafts, design, fashion, film, interactive entertainment software (video games), stage arts, music, publishing, software, as well as radio and television were among those identified by the Secretary of State for Culture, Media and Sport. The boundaries of creative economy are still changing, and it does not matter where they really are. Above all, it is important for the awareness of its great value to reach the governments, law-makers, academics, managers and people at the beginning of their careers.

The creativity alone is perceived and understood in many ways. By the vast majority of people, it is associated with the ability of man to creatively use the mental potential in creating original ideas, but this ability, in fact, does not relate to any particular field, but is a feature and attitude in the understanding of re-created reality (Sobczyk & Skrzypek, 2009, p. 431). Mikula (2006, pp. 67-68) states that creativity is a special ability of an intelligent organization and can be attributed by such features as: fluidity, flexibility, originality, sensitivity to problems, tolerance of ambiguity, ambitious goals, willingness to take risks, etc. Sobczyk and Skrzypek (2009) provide such phrases as: combining different ideas in an original and unique way, adopting new assumptions, seeing things from a new perspective, unusual matching of different thoughts and views, the result of intellectual and emotional maturity, action and knowledge.

The very abstractness of these terms suggests that measuring of creativity is a difficult task. For organizational management purposes, questionnaires (self-report) and tests (of Guilford, remote associates) (Zareba, 2007) are most commonly used, but the true value, from the point

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of view of an organization, would be provided by a measurement of creativity not for recruitment purposes, but for reporting purposes, where the disclosed creativity capital could be included in the balance sheet.

This article presents, verifies and evaluates the creativity measurement model developed on the basis of the M. Dobija's capital analysis, where the capital of creativity is "incorporated" into the human capital model defined by the following formula:

$$H(T) = K + E + D(T) \quad (1)$$

where:

$H(T)$ – human capital value,

K – capitalized living costs,

E – capitalized costs of education,

$D(T)$ – value of capital from experience.

The model presented above and verified in the next part of this paper was named by its author himself (Dobija, 2005, p. 356) a 'crude' tool. However, empirical research and application of a set of varied parameters can contribute to its full legitimization.

The theory of measuring human capital has rich literature (Dobija, Cieslak, Koziol, Renkas). M. Dobija, in many works, developed a theory of capital that contained a justification involving the fundamental principles (paradigms) that govern the reality. These include:

1. Principle of dualism – concrete assets are equal, in terms of value, to the homogeneous capital that is embodied in them.
2. Law of autonomous systems – systems operate in their own interest and are capable of maintaining a functional balance.
3. Principle of minimal action – more is achieved by those who have less economic resources and less time to achieve the set goals. Lack of respect for the principle of minimal action leads to impoverishment and difficulties in financial independence, and in organizations, to losing competitiveness, lack of profit and, often, bankruptcy.
4. Principle of behaviour – the capital does not come from nothing; in a closed system, it is impossible to create or destroy energy, and its quantity remains the same.
5. The second principle of thermodynamics – the role of work is to neutralize the effects of thermodynamic arrow of time, and the development of human resources is one of the main anti-entropic processes. Spontaneous dissipation of potential is a source of economic risk (uncertainty), while work and development lead to concentration of energy and capital multiplication.
6. Economic constant of potential growth – the rate of capital multiplication is a deterministic value of 8%.

The compendium of knowledge about creative industries are British Council compilations (2010), which, in addition to systematics of segments and solution to definition problems, also include presentations of research findings on the importance of creative industries in economic growth, comparison of creative industries with other sectors of economy, legal, political and business background of the sector, and show companies named creative.

The concept of creative industries and the idea of researching economic phenomena within them are generally encountered with scepticism of academics, but there is a group of researchers (Schulz, 1990; Magyari-Beck, 1990; Karwowski, 2009; Lipka, 2012; Wierzynski, 2015; Newbigin,

2010; Krapinski, 2014; Michalczuk, 2012; Waszczak, 2012; Zareba, 2007; Wyrzykowska, 2008) who develop the approach of bringing creativity beyond psychological analysis, as it integrates with many areas, including economic sciences. There is, therefore, a need for multidisciplinary and multilevel analysis of creativity, which is called creatology.

2. Human Capital Model in the Identification and Quantification of Creativity Capital

It has already been five centuries of double-entry bookkeeping system, based on fundamental identity, in which specific, heterogeneous assets are equal in their value to a homogeneous and abstract capital that is embodied in them, i.e.:

$$A_0 = K_0 \quad (2)$$

where:

A_0 – initial value of assets (0),

K_0 – initial value of capital (0).

Many authors fail to see the abstractness of the category of capital, perceiving it as assets, resources, money. They include the author of a bestseller titled *Capital in the Twenty-First Century*, Thomas Piketty (as cited in: Dobija, 2016, pp. 21-25). However, double-entry bookkeeping, which allows to measure the amount of initial capital during a given management period, leaves no choice. The car, available for the enterprise, is counted as a property asset, while its capacity to be driven is a capital asset. Human capital is therefore the human capacity to perform work. Intellectual capital, on the other hand, is based on work of mind, and creativity capital is the ability to do creative work.

The fundamental premise of the capital model is to notice that capital does not come from nothing. It is of some origin that allows it to be valued in monetary units. The same applies to human capital, which has the following form:

$$H(t) = (K + E) \times [1 + Q(t)] \quad (3)$$

where:

H – value of human capital,

K – cost of living,

E – value of vocational education costs,

$Q(t)$ – value of experience gained from employment day to the 't' day, expressed as a percentage.

Human capital represented by this formula can be derived from the capitalized outlays that are needed to generate economic potential for performing work. This is a potential available to man. First of all, it is related to the costs of professional vocational education. They are additionally increased by living costs. The costs are unavoidable and necessary to prepare a physical carrier of human capital. These expenditures are incurred at some time, which is necessary in order to fully prepare the man to work. It is the time from birth to the age at which it is possible to take up a job.

Typically, these expenditures are financed by both the family and rest of the society, but the owner of the capital thus created will be the person for whom these expenses have been incurred. In sum, human capital is generated by outlays for the proper preparation for work, so the value of human capital is presented as the sum of living and education costs, which determine the ability to perform a given type of work. In addition, the abilities to perform work will improve with the growth in seniority. This increase is represented by the experience function $Q(t, w)$ dependent on the years of operation (t) and learning parameter (w)² assigned to the person (Dobija, 2014, p. 160).

$$Q(t, w) = 1 - t^{\frac{\ln(1-w)}{\ln 2}} \quad (4)$$

There are three key environmental influences on capital: it increases thanks to work and good management; it also grows as a result of the impact of economic constant and naturally spreads as a result of risk. The above effects cause that its initial value changes. The time factor will determine the range of these influences, so it is required to use a discount account (Dobija, 2011, p. 50). The choice of the name of measure of value given in the capital model is justified by the nature of this measure. The (K) and (E) variables are capitalized values defined by the following formulas:

$$K = k \frac{(1+r)^n - 1}{r} \quad (5)$$

and

$$E = e \frac{(1+r)^m - 1}{r} \quad (6)$$

where:

- k – one-year living costs,
- e – one-year costs of education,
- n – age,
- m – number of years of education.

Choosing the capitalization rate is determined by risk-return theories and relevant empirical studies³, which confirm that this figure is 8%.

In the subject literature, apart from the capital model, which consists of capitalized sum of living (K) and education (E) outlays, growing with the increase in professional experience reflected by the empirical function $Q(t)$, there is a model that is a sum of three components:

² This parameter impacts the growth in experience. If the value of the parameter equals 0.1, it means that the employee, doing the same job, in the next year will perform it by 10% easier, shorter and cheaper. The parameter range is [0-0.2]. $Q(t, w)$ is a modified learning curve.

³ One way of verification is based on the calculation of minimum wages established under state law; another, on the analysis of wages in strike situations. A statistical verification of the hypothesis of deterministic risk premium manifested in entrepreneurship is also carried out by B. Kurek (2011) examining the financial statements of 1,500 US stock companies from over a 20-year period.

$$H(t) = K + E + D(t) \quad (7)$$

$D(t)$ is the value of capital from experience naturally defined as the difference between total capital and capital at the threshold of a career.

An employee on the threshold of a career, gives employer the capital generated from the costs of living and professional education, so the value of capital from work experience can be determined by the following formula:

$$D(t) = [(K + E) \times (I + Q)] - (K + E) \quad (8)$$

The synthetic model allows to examine every aspect of human capital, in particular to determine the cost of human capital, i.e. the formulation of wage models (Dobija, 2003, p. 163). The simplest wage model that can be created with human capital model is:

$$W = r \times H(t) \quad (9)$$

because the component that mostly determines the amount of wages is the size of accumulated human capital. Wage is determined by a percentage of capital (the employee who implements the employment contract provides this capital value to the entrepreneur during the specified working time, the rest of time is spent on regeneration, further training, relaxation and childcare), and its amount should be as large as the amount of risk premium that the employee's capital is retained⁴ (Dobija, 2005, pp. 35-36). The employer has the opportunity to shape the wage by taking into account the employee's experience⁵. Physical human capital can be considered as the most common; educational capital is more elitist, and experience (e.g. management) can be considered the most exclusive capital (Dobija, 2005, p. 35).

There are cases where there may appear qualifications or skills beyond the scope of this model. Their source may be creativity capital.

Over the past decades we have witnessed an escalation of creativity around the world, including Poland. Investment in research and development is growing, and creative activities and innovativeness become the mainstream of modern economy. Combining technological innovation, creativity, creating an attractive climate and gathering talents is now becoming an enormous driving force for socio-economic development (Krapinski, 2014, p. 25).

The capital of creativity is manifested and created by educated people who, by their creativity, increase the added value. It may appear on effective markets and indicates the increased productivity. In practice, this involves the fact that the human being who has such capital can count on a salary that is far greater than what he or she is being paid now and is a fair value for

⁴ The inherent characteristic of capital is the pursuit of multiplication at a right pace, because if the capital does not reach a sufficiently high growth rate, the value of assets in which it is located falls below its cost of acquisition or production. There occurs a depreciation of capital (Dobija, 2003, p. 163).

⁵ Due to little experience, every employee at the threshold of his career, regardless of education and living expenditures earns less than an experienced worker.

his or her qualification acquired through education and experience (Dobija, 2014, p. 164). Creativity capital could thus be integrated into human capital model and it could be as follows:

$$H(t) = K + E + D(t) + R \quad (10)$$

where:

R – creativity capital, and its value can be calculated on the basis of the difference between the real wage and fair wage calculated with human capital.

Despite the belief that creativity is a ‘good’ reserved for few, exceptional people who have been endowed with it in the process of inheritance, it turns out that everyone can be creative and creativity is a constant feature, that is, workers can be creative at different levels, and creativity can be developed. Creativity cannot be learned, but it is possible to find ways of activating this potential in relation to people who already have it, but for various reasons, they neglect and underestimate it, and do not use it as much as they could (Moczydlowska, 2012, pp. 72-73).

Waszczak (2012) confirms that creativity is a characteristic of all people, but with varying degrees, and that the greatest part of creative activity consists of cognitive components and processes. From a practical point of view, this means that each employee has a specific intellectual and creative potential. This potential – if identified and properly developed – will increase the value of human capital and competitiveness of the organization.

Since the concept of creativity has evolved from the phase of elitism (creativity as a feature attributed to highly gifted individuals and artists, in particular) to the phase of egalitarianism (mental activity available to all), the model verification can be based on the data obtained from companies not classified in the creative sector (although identifying and measuring this potential for the sector should be of paramount importance).

The empirical research, i.e. the verification of human capital model with the creativity factor incorporated into this model, concerns an IT company whose brief profile is presented below. The company’s selection has been determined by an ongoing research on the organization’s intellectual capital and the results suggesting that the company avoided the inherent risk of doing business thanks to specific management and staff skills. The verification of human capital and creativity capital model will thus identify possible research directions (the intellectual capital of employees and the intellectual capital of the organization), and for the purposes of this paper, to answer the questions whether the creativity measurement model developed on the basis of capital analysis is of significant importance from the point of view of organizational management and whether creative potential influences the amount of pay.

The organization is primarily experienced technical and managerial staff, running IT business since the mid-1990s. The company’s staffing resources consist of about 30 employees, gathered in 5 occupational and payroll groups (management, sales and administration, production, warehousing and logistics, and installation).

Table 1, in addition to the quantities, also includes all necessary data for calculations that have been taken from the company’s HR and payroll documents.

3. Conclusion

Human capital is, by definition, the human capacity to perform work. The model shows how human capital arises, how its individual elements are valued, and on what basis it can be paid. In addition, in the model, there can be found an explanation of the material situation of an employee who is the owner of human capital. The model thus allows to establish the relationship between the value emerging in economy and its distribution, and therefore, it takes into account the principle of compliance of wage with the value of work performed.

In the case, apart from ‘typical’ components of human capital, an additional factor influencing the amount of pay is revealed. It can be called the creative potential. The study also demonstrates that the creativity measurement model developed on the basis of capital analysis is a valuable tool for economic control because of the range of information that it provides to managers. The analysis of the values obtained from model application showed that, at certain parameters, creativity capital is the property of all groups employed in the enterprise, regardless of age, education or work experience. In addition, the research confirms appropriateness of the used capitalisation rate with a risk premium of 8% for certain parameters such as: costs of living must be in the amount of necessary costs, allowing to develop a healthy, well-formed person (the study used data on ‘minimum subsistence’ amount by Forbes); the employee performs a job according to his qualifications, or at least his/her education is necessary for the job; costs of education for people with higher education result from the choice of paid (extramural) studies for gaining professional experience; the experience increase is calculated according to the number of years in the profession or industry (experience gained in another field is not measurable); the learning rate is determined by the level of education of the person (10% – university education, 5% – secondary and vocational education, < 10% – academic staff); the enterprise (organization) has certain wage traditions and rules regarding the division and size of pay.

With the learning parameter set at 10% for employee groups of installers and production staff, regardless of education, creativity capital would be of a negative value for the selected groups, which could indicate the occurrence of depreciation of capital.

The level of pay in the enterprise is adequate to individual components of human capital, however, it is possible to first examine the existing proportions and consider their desirable relationships, i.e. point to the need to increase the amount of one capital at the expense of the other, or vice versa, and to constantly verify whether human capital of individual occupational groups does not increase at the expense of other workers.

Observing the results of the implementation of human capital model also allows companies to select employees that fit ‘financing capabilities’, who, at the same time, would be satisfied with their pay (studies show that the level of capital pay below 8% lead to strike situations), and make it easier to decide on hiring high-specialized management staff (graduates from MBA or PhD studies in management sciences) or establishing research and development centres, as well as giving up employees with higher education for hiring long-seniority workers or vice versa.

The highest level of creative capital is presented by the management, the lowest level – by production staff and installers. This can naturally be related to the type of work performed (production and assembly – repetitive tasks, imitative work, management – the need to react to change, making of key decisions). In addition, for the company’s management, the outlays’ return period is shorter by almost a half, and the capital pay ratio is over 17%.

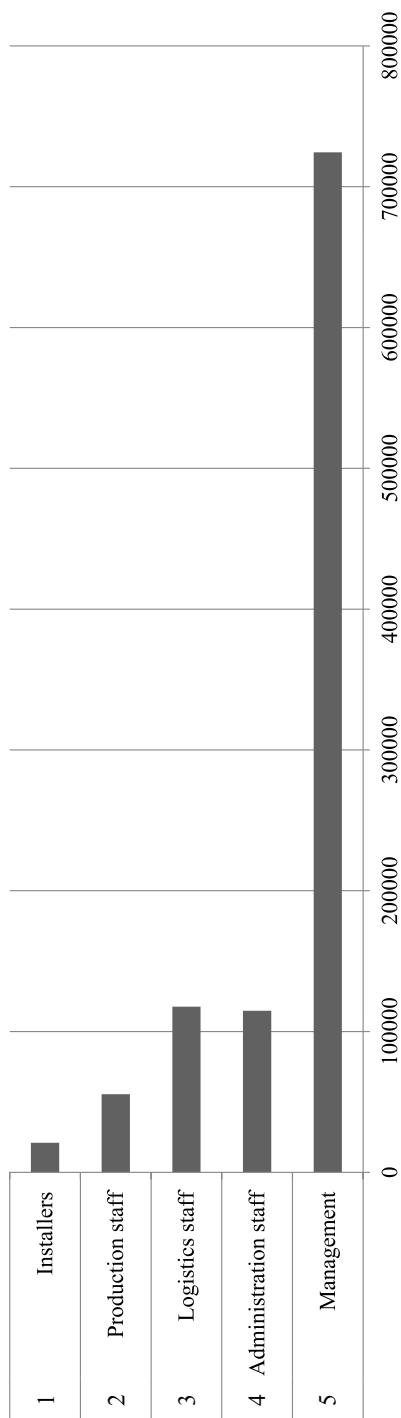
Table 1. Measurement of creativity capital of the company's employees

Occupational group		1	2	3	4	5
		Management	Administration staff	Logistics staff	Production staff	Installer
<i>Data obtained from HR and payroll documents for the years 2011-2015</i>						
1	Labour costs – gross monthly remuneration (PLN)	9400.00	5100.00	4200.00	3700.00	3400.00
2	Average age (years)	40	35	45	37	30
3	Age at start of employment (years)	20	20	19	19	19
4	Professional experience in the company or industry (years)	20	10	25	15	10
5	Education	higher	higher	vocational	secondary	secondary
6	Costs of professional education (PLN)	500.00	500.00	0.00	0.00	0.00
7	Number of years of professional education	5	5	0	0	0
<i>Data based on assumptions⁶</i>						
8	Living costs (PLN)	850.00	850.00	850.00	850.00	850.00
9	Discount rate of r	8.00%	8.00%	8.00%	8.00%	8.00%
10	Learning parameter	0.10	0.10	0.05	0.05	0.05
<i>Calculation of the human capital and creativity (competence) capital value of individual employees</i>						
11	Capitalized living costs – K (PLN)	466772.04	466772.04	422751.89	422751.89	422751.89
12	Capitalized professional education costs – E (PLN)	35199.61	35199.61	0.00	0.00	0.00
13	Experience increase – Q(t)	0.37	0.30	0.21	0.18	0.16
14	Total capital – H(t)	685583.21	650209.87	512355.79	499521.28	489882.89
15	Professional experience capital – D(t)	183611.57	148238.22	89603.91	76769.40	66231.00
16	Minimum annual cost of capital – H(t) * 0.08	54846.66	52016.79	40988.46	39961.70	39118.63

⁶ Costs of living must be in the amount of necessary costs, allowing to develop a healthy, well-formed person; the employee performs a job according to his qualifications, or at least his/her education is necessary for the job; costs of education for people with higher education result from the choice of paid (extramural) studies for gaining professional experience; the experience increase is calculated according to the number of years in the profession or industry (experience gained in another field is not measurable); non-industry related professional experience is included in costs of living (costs incurred up to the time of commencement of work); the learning rate is determined by the level of education of the person (10% – university education, 5% – secondary and vocational education, < 10% – academic staff); the enterprise (organization) has certain wage traditions and rules regarding the distribution and size of pay.

17	Labour costs for 1 month (fair wage determined by the model)	4570.55	4334.73	3415.71	3330.14	3259.89
18	Degree of capital payment	0.1714	0.0980	0.1025	0.0926	0.0869
19	Outlays' return period (years)	5.83	10.20	9.76	10.80	11.51
20	Real wage – fair wage determined by the model (difference) (item 1 – item 17)	4829.45	765.27	784.29	369.86	140.11
21	Creativity capital 12 * (item 20 / 0.08)	724416.79	114790.13	117644.21	55478.72	21017.11

Value of creativity capital [PLN] of individual employees of the enterprise



Source: own elaboration.

The adopted measure of value refers to the real current costs of living and education, and therefore constitutes a significant piece of information that, when included in the balance sheet, can help to protect human capital and improve settlement between the company and employees.

The verification of the creative capital measurement model incorporated into human capital model, in addition to the solution of the formulated research problems, has led to a further scientific legitimisation of this 'crude' tool.

Bibliography

1. Dobija, D. (2003). *Pomiar i sprawozdawczość kapitału intelektualnego przedsiębiorstwa*. Warszawa: WSPiZ.
2. Dobija, M. (2005a). *Rachunkowość Zarządcza i Controlling*. Warszawa: PWN.
3. Dobija, M. (2005b). *Teoria rachunkowości w zarysie*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
4. Dobija, M. (2011). *Kapitał ludzki w perspektywie ekonomicznej*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
5. Dobija, M. (2014). *Teoria rachunkowości, podstawa nauk ekonomicznych*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
6. Dobija, M. (2016). Układ pojęć konstytuujących teorię rachunkowości w kontekście nauk ekonomicznych. *Zeszyty Teoretyczne Rachunkowości*, 89(145), 9-28.
7. Florida, R. (2010). *Narodziny klasy kreatywnej*. Warszawa: NCK.
8. Karwowski, M. (2009). *Klimat dla kreatywności. Koncepcje, metody, badania*. Warszawa: Difin.
9. Krapieński, B. (2014). Kwestie Definityjne. [in:] S. Szultka (Ed.), *Kreatywny łańcuch – powiązania sektora kultury i kreatywnego w Polsce*. Gdańsk: Wyd. IBNGR.
10. Krapieński, B. (2014). Klasa kreatywna jako potencjał rozwojowy miast i regionów. [in:] S. Szultka (Ed.), *Kreatywny łańcuch – powiązania sektora kultury i kreatywnego w Polsce*. Gdańsk: Wyd. IBNGR.
11. Kurek, B. (2011). *Hipoteza deterministycznej premii za ryzyko*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
12. Lipka, A. (2012). Ekonomia Kreatywności – z pogranicza kreatologii i ekonomii. [in:] A. Lipka & S. Waszczak (Eds.), *Ekonomia kreatywności. Jakość kapitału ludzkiego jako stymulator wzrostu społeczno-gospodarczego*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
13. Magyari-Beck, I. (1990). An Introduction to the Framework of Creatology. *Journal of Creative Behavior*, 24, 151-161.
14. Michalczyk, G. (2012). Zarządzanie kapitałem intelektualnym jako obszar innowacyjności przedsiębiorstwa. *International Journal of Contemporary Management*, 11(3), 106-115.
15. Miś, B. (2006). *Organizacje oparte na wiedzy*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
16. Moczyłowska, J.M. (2012). Prokreatywny system motywowania jako wyzwanie dla nowoczesnego zarządzania kapitałem ludzkim. [in:] A. Lipka & S. Waszczak (Eds.), *Ekonomia kreatywności. Jakość kapitału ludzkiego jako stymulator wzrostu społeczno-gospodarczego*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
17. Newbigin, J. (2010). *Kreatywna Gospodarka i Przemysł Kultury*. Londyn: British Council.

18. Schultz, R. (1990). *Twórczość – społeczne aspekty zjawiska*. Warszawa: PWN.
19. Sobczyk, M., & Skrzypek, E. (2009). *Kreatywność – nowy paradygmat organizacji i zarządzania*. Lublin: Wyd. UMCS.
20. Waszczak, S. (2012). Twórczość z perspektywy psychologii poznawczej. [in:] A. Lipka & S. Waszczak (Eds.), *Ekonomia kreatywności. Jakość kapitału ludzkiego jako stymulator wzrostu społeczno-gospodarczego*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
21. Wierzyński, W. (2015). Przemysły kreatywne w Polsce – perspektywy rozwoju. *Portal innowacji*. Retrieved on 4/08/2016, from: http://www.pi.gov.pl/parp/chapter_86196.asp?soid=96BA40D2FF10483CBD9236D4405479F7.
22. Wyrzykowska, B. (2008). Pomiar kapitału ludzkiego w organizacji. *Zeszyty Naukowe SGGW – Ekonomika i Org. Gosp. Żywnościowej*, 66, 159-170.
23. Zaręba, T. (2007). *Pomiar twórczości*. Retrieved on 12/06/2016, from: http://www.ppp.tnb.pl/viewpage.php?page_id=49.

Chapter 17

Management of Employees' Competences on the Labour Market¹

Piotr Zając

1. Introduction

The management of employees' professional competence is one of the most important areas of human resource management; it gives a very broad spectrum of possibilities related to the assessment and motivating of the employees. When assessing the competency of an employee we can find out what features we will look for in the next candidates for the position and what competences they should have. A properly conducted competence analysis can be a very good source of information about current employees as well as also about the candidates who will want to find an employment in the organization.

The aim of this article is to draw an attention to the way the process of the competence assessment may back up the process of employees' and candidates' assessments as well as their place in the exchange system, which is the labour market.

2. Theoretical basics of the labour market

The market as a category of commodity economy is considered according to various criteria such as: the subject of the transaction, the occurrence or the area coverage. Aside of basic markets such as the money market, the raw materials market or the foreign exchange market, one distinguishes also a labour market, whose knowledge of its functioning is becoming more and more significant. It was formed in the historical process of economy development and it belongs to the basic categories of the economy. The labor market is analyzed primarily in terms of the relationship between the supply of labor and the demand for labor. These relationships relate to numerous and actively changing relationships of labor supply and demand, which are primarily dependent on economic conditions. A competitive market for a specific commodity, which is work, can be analyzed in terms

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of its demand, reflected in the behaviors and decisions of employers and the supply of labor, which indicators are employees' decisions and behaviors. The activities of various institutions directly related to the labor market are also included here. Relations as well as changing relationships, dependencies of demand and labor supply and the reactions of macro-and microscale system components co-create the processes of the labour market.

A long-lasting debate, whether work is a commodity, is slowly withering away. If there is a labor market and there is a demand, a supply and the price for the labor, then the buy-sell transaction is obvious. It does not mean a classic sale, though because neither the job nor the employee becomes the property of the employer. At present not only is it impossible to buy an employee or even to sell or buy his/her labor potential; it is only possible to lease, for a negotiated equivalent (salary), their potential for a fixed term with an employment contract. The owner of this potential is invariably an employee, even when the work potential develops thanks to the employer's investments (Szalkowski, 2005, p. 7).

The main feature of the labor market distinguishing it from other markets is the fact that it is a market of the production factor (Kaufman, 1991, p. 10). Apart from this fact, the labor market is characterized by the following characteristics:

- inseparability of the product – the service of labour from the selling employee,
- a long-term nature of the employment relationship,
- heterogeneity of work,
- disintegration of the labor market into a number of sub-markets.

Due to the fact, that you cannot separate the labour from the person conducting it, the labour is as if "rented" to the companies (McConnel & Brue, 1986, p. 2). In addition, non-economic factors, such as the working environment, additional benefits provided by the employers, such as a supplementary health insurance, a possibility for a promotion or a training improving the qualifications of the employee, are also of enormous importance. All these factors cause that the choices of employees have a different, much more complex character than the choices done by the consumers of the commodity markets.

In opposition to the commodity markets, where buyers and sellers may relatively easily change their preferences, the situation on the labour market is more complicated. The possibility of the flexible shaping of the employment is desired by the companies. However, the legal status in the majority of highly- developed countries creates a number of barriers to the adjustment of employment to the needs of companies in the short term². There are also economic obstacles. The companies unwillingly dismiss qualified labour force during a recession, as the costs of further employment of new workers and the trainings of unqualified workers are too high. The workers also prefer stable employment due to psychological reasons- the feeling of safety, as well as due to economic reasons. The most important effect of the long-term nature of the employment relationship is the reduction of wage sensitivity to the changes in the supply and demand for labor (Kaufman, 1991, p. 5). This causes an imbalance on the labor market, which can be evened out only in the long run.

The labor market is one of the most diversified markets. You can not talk about any standardization of the product. Every employee is unique and his/her choice is not a simple matter for the company. The employee faces a similar problem of choosing the right employer. The heterogeneity

² Relatively the highest labor market flexibility can be observed in the USA.

of the labor market has two consequences; firstly, market objects in their choices are governed not only by the pay, but also by a number of non-economic factors. Secondly, it greatly hampers the exchange of information on the market. "As a result, participation in the labor market is more expensive and less effective than in the markets where the product is almost standardized" (Kaufman, 1991, p. 7).

Balance, similarly to the shortage and surplus on the labor market are "categories of vector" (Kornai, 1985, p. 342). This makes it impossible to look at the labor market as a whole. The global labor market is made up of a number of submarkets. They can be distinguished for their professional and geographical criteria. The boundaries between individual markets are relatively fluid. Difficulties in changing jobs increase together with the increase of the requirements for employees and the gap between the old and the new workplace; it concerns older workers.

The labor market seemingly seems to be a uniform system; in fact it consists of a number of partial markets, called segments, which together form its structure. The mentioned segments can be isolated on the basis of different criteria such as a gender, age, qualifications, an occupation, a branch or department of the economy or a specific region or a town.

There exist a couple of reasons for segmentation (Eatwell et al., 1987, p. 285).

Firstly, the compensatory differentiation resulting from A. Smith's theory allowing the inclusion of non-economic factors while selecting the work. Secondly, the human capital theory, which assumes that people invest in themselves in order to increase their chances in the labor market in order to get a more attractive, better- paid job. Thirdly, there are segments on the labor market, entrance to which is limited by a number of barriers. These may be legal barriers, obstacles introduced by trade unions or a racial or gender discrimination. Labor market segments are also formed due to temporary differences arising during the business cycle. The differentiating criterion, which is of great importance in the labor market, is also the personal predispositions of every human being, both intellectual and physical which predispose a person to perform a given profession.

As a consequence of segmentation, we can talk about separate labor markets for women and men, adolescents and the elderly, unskilled or skilled workers; labor markets for workers, economists or IT professionals, labour markets for blue collar, construction or agricultural workers or national, regional and local labor markets. The external labor market is also distinguished from the internal (in-company) one; in the latter case the relationship between the demand and the supply within a given workplace (Unolt, 1999, p. 24).

The listed processes of isolating the individual labor market parts (segments) are referred to as its segmentation. The basis for the mentioned separation is diverse availability of work for the people who are looking for it, different amount of the remuneration received and different opportunities for stabilization and professional development. The importance of the labour market segmentation lies primarily in the fact that belonging of a given person to a particular segment allows him/her to fulfill their expectations regarding the work more or less accurately. It also influences his/her social position (Francik & Pocztowski, 1993, p. 44).

One can name two points of view on the labor market segmentation. The first one, which includes the traditional (statistical) division of the labor market, relating to the classification. The second one, undertaking most of the fundamental problems of the labor market theory, including the mechanisms of labor allocation, imbalance and the processes of bringing the balance back, shaping the labor force prices and the division of the income from work in the conditions of the labor market segmentation, has created segmentation theories (Kryńska, 2013, p. 205).

Other kind of the labour market segmentation distinguishes: an informal labour market (grey zone); private sector and public sector, small companies and segments according to the form of the employment (Kozek, 2013, p. 106).

The market can be divided into (Eatwell et al., 1987, p. 87):

- a primary one,
- a secondary one.

There are two criteria of distinguishing these markets. The first, less popular one distinguishes the markets as per the stability of the employment. The second criteria, found in the economic literature takes the height of the wages as a discriminant. This second criteria seems to reflect the reality better – it is because the primary labour market covers the best paid jobs, giving their representatives optimistic life perspectives, which give them a possibility for development. On the other hand, the secondary labour market covers poorly paid jobs, which provide almost no chances for improving the living conditions.

In order to pursue an effective employment policy aimed at the rational distribution of the labor potential, the regional characteristics of the labor market should be taken into account. Regional labor markets differ in terms of the distribution of the workplaces and the social potential of work³, both in the quantitative aspect (the population in the productive age) as well as in the qualitative one (the structure of this population by gender, age, qualifications and the attitude to work).

The sectoral structure of the labor market is a derivative connected with the distribution of labor potential within the economy, dividing the market into three sectors.

Sector I includes agriculture, forestry and fishery and Sector II includes industry and construction. Sector III is made up of broadly defined services. The analysis of the labor market within the framework of the structural agreement allows to determine the level of the economic development achieved by a given country, and thus provides information on the long-term absorption of labor resources as the economy develops. We can distinguish three phases of the labor force receptivity by the labor market. In the first stage the labor force is absorbed by the agriculture, it is called agrarianization. Then in the second phase, there is a growth of the absorption of the mentioned resources by the industry and construction sectors, which is industrialization. The third stage is about the absorption by the sphere of services and we call it servicisation.

Another concept of the labor market division is a three-segment concept⁴, it assumes the division of the labor market into the external, professional and in-company labor market. The external labor market is a free market, where there are no labor force mobility barriers as well as no wage limitations. The relationships between the employers and the employees are regulated solely by wage mechanisms, based on the freedom of the created relationships between the demand and the supply for work. The professional labour market is an internal market that brings together workers who are members of a particular trade union. Employee relations on this market are regulated by mostly local bilateral agreements signed between the trade unions and the employers. The in-company labor market covers the relationships between the demand for work and its supply within autonomous organizational units (enterprises or organizations). Employers' decisions are made in the agreement with representation of the company employees (Unolt, 1999, p. 26).

³ Social potential of work – the totality of possibilities available to a man or a society which can be used in the work process.

⁴ Its origins go back to the year 1954. It was started in US by C. Kerr.

Another division of the labor market divides the discussed market into a formal and an informal market (the black market). The division of the labor market into the black and the official one is commonly referred to, especially in the descriptions of the so-called second economy, shadow economy and dual economy. When analyzing this type of the economy, attention should be drawn to the fact that a large proportion of the national income in certain societies arises as a result of unofficial, unregistered, non-insured and non-taxed work. The black labor market fundamentally changes the situation of the employer and the employee. The employee does not have the legal protection which s/he has on the official market. The employer is also in the similar situation, s/he cannot expect to receive protection under the law in conflict situations. Black work is usually casual or seasonal rather than permanent, meaning that neither employers nor employees treat this kind of a contract as a permanent solution. (Kozek, 2013, pp. 123-125).

The concept that is getting more and more important is the private sector market. A division into the private and the public market takes place in all the places where the state runs business activities on their own account. Currently the differences between the private and the public sector exist mainly in the belief that the private sector offers less stable employment. The base for the employment in the private sector is an individual labour contract. It is signed when the employer recognizes that an employee is able to earn for his/her salary and bring profits to the company.

The role of small companies on the labour market. At the beginning of the nineties in Poland, there occurred a significant change in the structure of the offered jobs, in terms of the size of the hiring companies. Micro-companies (employing up to 10 employees) are in majority privately owned. That means serious changes in the conditions of work. The work in small companies may be classified as employment in the peripheral market, which means lower salaries, workers burdened with more responsibilities and changeability of working time depending on the needs of an employer.

The analysis of employment in the companies of this sector shows that currently it plays an important role in fighting the unemployment. It employs a relatively big number of young people with low qualifications, living in small towns and villages. These employees are potentially most vulnerable in terms of unemployment (Kozek, 2013, p. 130).

A significant factor influencing the situation on the labour market, and especially on the unemployment is the flexibility of the labour market and the degree of its regulation connected with it. Bigger flexibility of the labour market and lower degree of its regulation are important factors which increase the scope of market mechanisms, which- according to the neoclassical economics – contributes to the improvement of the situation on the labour market (Kwiatkowski, 2005, p. 284).

The labour market is considered as a system of confrontation- meeting of the demand and the supply of work as well as of the price of work. Labor demand in the labor market is created by companies and employers, while the supply is reported by the households from which employees come from.

The basic function of the labour market, which comes from its definition, is maintaining a long-term balance between the demand and the supply of work. The mentioned function is realized in the process of negotiation between the representatives of the employers and the employees, which results in defining the rights and responsibilities of both sides. The mentioned representatives are the main subjects of the labour market because the contracts regulating the work relationships are signed between them. Apart from the discussed representatives, there is a number of auxiliary subjects with the main role being played by the state by defining the legal basics for the work relationships. It also impacts the activities of the other subjects.

In the free market economy, the driving force of the labour market is the demand for work; as opposed to the command economy, where the driving power of the labour market was the work

supply. In a general understanding (a macro-economic one), the work demand means the needs of the economy whereas in a micro-economic understanding (a particular workplace), the work demand means the potential of work in terms of quantity and quality.

It can be considered in two ways: as a total demand; which includes all free and occupied work places. You can also interpret it as a current demand, which would refer to unoccupied work places only. The demand for work in quantitative terms is expressed by the number of vacancies and the amount of working time resources that corresponds to employers' needs. On the other hand, demand for works expressed in qualitative terms corresponds to specific requirements concerning personal qualities such as gender, age, health status, mental performance as well as the qualifications of the employees sought, including their special talents and availability to the employer.

Labor supply refers to the quantity of work offered on the labor market for sale. The concept of the labor supply is directly linked to the labor resources category. We can distinguish two types of labor resources: a potential and a real one. The potential labour resources cover the working-age population; in Poland the working age is the age when you are capable to work. From the beginning of 2013 the retirement age in Poland is being gradually increased. Men and women will achieve it at the same time of their life, which is at the age of 67.

It is worth to recall that before the amendment, the retirement age of women and men was significantly different. For women it was 60 and for men – 65 years old. According to the Act of 17 December 1998 on pensions and disability benefits from the Social Insurance Fund (Journal of Laws of 1998, No. 162, item 1118, as amended) from January 1, 2013, the general retirement age is gradually being extended to 67 years. The process of extending the retirement age is designed in such a way that it is increased by 1 month every 4 months. The final extension of the retirement age to 67 years will be in the year 2040 for women and in 2020 for men. From the point of view of the needs of the labor market analysis, the potential labor resources are made up of three groups: the working, the unemployed and the inactive⁵.

The concept of the labor supply is identical with the concept of the real labor resources and the professionally active population (Kryńska, 2013, p. 68). The real labor resources include people of working-age who are able to work and ready to undertake work under typical conditions existing in the economy. Thus, the real work resources include all those who work and those who are able to work, ready to undertake the work and the ones who look for it. This definition implies that the labor supply is identical with a part of the working-age population.

3. Management of professional competencies

Modern companies, regardless of their size, location or industry affiliation have to face many new challenges in the context of which the following should be mentioned: globalization, taking advantage of opportunities created by new technologies, achieving profitability through growth, creating of intellectual capital as a source of a competitive advantage and the necessity for action

⁵ The workers – people performing work, regardless of its form and the type of employment relationship, the unemployed – people who are unemployed, who, in specific conditions, would be willing to undertake work; the inactive- persons who are not permanently employed (pensioners, children, adolescent learners, people running households only).

in a changing environment (Ulrich, 1997, pp. 126-127). Organizations which want to meet these challenges, cannot compete using traditional factors such as costs, modern technologies, production and distribution systems and product characteristics, but should reach for factors of an organizational nature, such as an operating speed, flexibility to change, an ability to learn quickly and high competences of employees. The model of challenges for personal controlling, and thus for tools that the human resources management connected with it, is shown in Figure 1.

Figure 1. Challenges for personal controlling



Source: developed on the basis of (Pocztowski, 2008, p. 39).

The need to develop the discussed factors gives an opportunity to raise an important role of an HR function of an enterprise, as well as of the management tool supporting the discussed function – which is personal controlling and assigning them the basic rank in an organization desiring to operate in new economic conditions.

Traditional human resources management is more and more often supported by the aspects of employees' competence management. In many organizations and entrepreneurship, competence management is becoming more and more popular – mainly because of the fact that the success of a business depends on many resources: financial ones, raw materials, owned techniques and technologies and information but most of all- on the employed workers.

Managing employees' competencies aims at building a management system, which aims at guaranteeing development and strengthening of the company position on the market by the realization of a policy of creating and developing defined competences required by the company (Ziębicki, 2011, p. 26).

The following may be listed as aims of competency management:

- adjusting employees' competences to changes and to an increasing flexibility of markets, which often call for a need of re-qualifying of a worker or for changing the workplace,
- guaranteeing, maintaining and development of employees' abilities to do a given job,
- achieving a high level of competitiveness and effectiveness,
- guaranteeing high employee competencies for certain workers, which guarantee higher quality of work (Oleksyn, 2006, p. 37).

A particularly important function of competence management is to identify the competencies required for a given position. The competencies defined in this way help the recruitment department to find suitable candidates for specific positions and are extremely helpful in evaluating employees and determining the path of their professional development. In the described approach, we can see gaps between the competencies held by employees and competencies required for a given

position. The analysis of the competencies held by employees is very important for the company, due to the possibility of developing potential abilities and employees' competencies in such a way that they will bring benefits to the organization.

What is also crucial is a division of competence management into levels. T. Oleksyn has distinguished six levels of competency management (Oleksyn, 2006, p. 38). The first most basic level is an individual level – each person individually, with varying degrees of success, can manage their own competencies; each person should strive for self-improvement and the increase of their own competencies, not relying solely on the employer in this matter. The next level refers to an organization, in which these are the employers or managers on their behalf who are interested in determining required competencies in a given enterprise, their provision and their development. An important aspect of this level of competency management is attracting and retaining employees with a competence profile corresponding the organization. The next level is a local level, in which counties and municipalities realizing plans for social development are also involved in the process of competency management, mainly due to their oversight in terms of culture and education. The fourth level is a regional level, which in our country means the level of a voivodeship. Voivodeships are largely responsible for the activities of universities and colleges in their area, and these in turn are responsible for teaching a certain range of competencies to their graduates. The next level of competence management is a national level, where the most important role is played by the education system, which primarily serves the science, developing talents, bringing up, career guidance and job-search assistance. The last level of competence management is an international level. Here, what is mostly included are international human rights respected by almost all the countries in the world; which are connected – among others- with a right to choose your job freely, right to education and the labor protection.

Issues related to the competencies in organizations form competence structures. Competence models in organizations are sets of the most significant and the most important competencies from the point of view of the company. Competencies within the models are grouped and assigned to specific positions in the organization. Defined and position assigned competencies clearly stipulate the key behaviours that workers should portray in order to achieve the best results on a specific work position. Competence models are the tool that guarantees purpose, consistency and precision in undertaken activities in the field of human resources management – among others – in activities such as selecting employees, evaluating them as well as in training and development – due to that, these models greatly affect the organization efficiency. Enterprises create their competence structure in different ways, depending on their own needs. Very often, however, they are presented by means of diagrams which clearly show how the competency structure is shaped in a given organization.

4. Conclusion

The implementation of a competence management system in an organization has many advantages, including the systematization of labour structures, the creation of a database of competencies owned by the organization, the facilitation of an objective assessment of workers, the facilitation of creating of incentive schemes for employees and an increase of employees' motivation to improve their competencies. It is not, however, a system without errors. One should remember though that a system basing on competency stimulation is a good factor to obtain a competitive advantage on the labour market; it also helps to create a fair remuneration system in an organization.

A properly designed and adequately used competence management system in an organization may bring a lot of benefits to the company.

Due to that, the personal controlling has objectives; among which are:

- competence building corresponding to the development strategy adopted by the company through extensive training and development activities for employees,
- retention and attracting to work in the company the most valuable and talented employees,
- a continuous improvement of work efficiency and maximum utilization of workers' skills and knowledge,
- mastering of incentive systems and creating conditions for the implementation of tasks at an expected level,
- strengthening the role of the line management,
- building a pro-innovation organization culture,
- creating an image of the company as a particularly valued and responsible employer in the labor market.

Consistent implementation of planned goals gradually brings benefits to the company in a form of increased labour efficiency as well as innovation and involvement of employees around the company's goals.

Basing on the presented considerations, it can be concluded that the tools of human resources management – controlling and a personal audit can be used both within all the enterprise, as well as within its individual organizational units. One can expect that in the near future, controlling and a personal audit will be developed and used by a growing number of enterprises and will become a part of the basic tools used in the management of human resources, also in the framework of the promoted process of competence management.

Bibliography

1. Eatwell, J., Millgate, M.H., Newman, P., & Millan, Mc. (1987). *The New Palgrave Dictionary of Economics*. London: Macmillan Press.
2. Francik, A., & Poczowski, A. (1993). *Wybrane problemy zatrudnienia i rynku pracy*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
3. Kaufman, B.E. (1991). *The Economics of the Labour Markets*. London: The Dryden Press.
4. Kornai, J. (1985). *Niedobór w gospodarce*. Warszawa: PWE.
5. Kozek, W. (2013). *Rynek pracy: perspektywa instytucjonalna*. Warszawa: Wydawnictwo Uniwersytetu Warszawskiego.
6. Kryńska, E. (2003). Wykorzystanie niestandardowych form zatrudnienia i organizacji czasu pracy w przedsiębiorstwach Polskich. [in:] R. Horodeński & C. Sadowska-Snarska (Eds.), *Rynek pracy w Polsce na progu XXI wieku, Aspekty makroekonomiczne i regionalne*. IPiSS, Wyższa Szkoła Ekonomiczna w Białymstoku.
7. Kryńska, E. (2013). *Podstawy wiedzy o rynku pracy*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
8. Kwiatkowski, E. (2005). *Bezrobocie. Podstawy teoretyczne*. Warszawa: PWN.
9. McConnel, C.R., & Brue, S.L. (1986). *Contemporary Labour Economics*. London: Mc Graw Hill Book Company.
10. Oleksyn, T. (2006). *Zarządzanie kompetencjami teoria i praktyka*. Kraków: Oficyna Ekonomiczna.

11. Szałkowski, A. (2005). Kapitał społeczny jako czynnik efektywności pracy. *Praca i Zabezpieczenie Społeczne*, 11, 2-7.
12. Unolt, J. (1999). *Ekonomiczne problemy rynku pracy*. Katowice: BPS.
13. Ulrich, D. (1997). *Human Resource Champions*. Boston, Mass: Harvard Business School Press.
14. Ziębicki, B. (2011). Istota i funkcje zarządzania kompetencjami. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie*, 854, 23-32.

Chapter 18

Developing Competencies in the Context of Employability – Research Report¹

Robert Szydło, Marek Koczyński

1. Introduction

Competency is not only the theoretical construct that draws attention of researchers all over the world. It is also a construct that is being understood by students as a key factor of getting the job. The interest of researchers may be connected with legal regulations or the strong will of acquiring and spreading knowledge. The effects of studying are described in Polish Qualification Framework, which points out the ways of educations, results of it and the bodies responsible for the quality control (compare: Kujawska & Szuwarzyńska, 2009). Acquiring and spreading knowledge is connected with the role of scientists and in the same fact with the mission of the Cracow University of Economics: *Rerum Cognoscere Causas et Valorem*. Graduates from higher education institutions are confronted with the demands of the labor market. There are strict description of competencies, attitudes and factors that are required by companies. That is why at least some of the students are trying to prepare themselves to fulfilling the requirements of companies. And in this case the third approach towards competencies is easily visible. It is the one of companies. They are interested in competencies, because of bigger and bigger problems in involving candidates with competencies that they need (Kocór, Strzebońska & Dawid-Sawicka, 2015). The general questions addressed in this article are as follows:

1. What is the level of competencies among students in Poland?
2. How are they being developed?

The questions that support the cause are connected with the type of University, NGO work and Job impact on the competencies:

3. Does the type of the University have an impact on the level of competencies?
4. Does the NGO work have an impact on the level of competencies?
5. Does the job have an impact on the level of competencies?

It is then impossible to consider competencies without those three approaches: educational, personal and business. All those deliberations are connected as well with the employability.

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2. Employability

Law on Higher Education in the Article 13 par. 1 indicates that one of the university tasks is to provide possibility for students to acquire knowledge and skills that are demanded by the labour market, and that might be presented for future employer during recruitment and selection process. This resource is called employability. In the English-language literature the concept was introduced for the first time by Beveridge (1909). It was translated for polish as “zatrudnialność” by Pocztowski (2003). The popularity of the Employability concept in our times might be explained by the situation on the labour market and an increased need for the best and talented employees. Employability as one of the priorities of the Bolonian System, is considered as a theory that mainly concerns young people and graduates from higher education institutions, which are searching their first job (initial employability). It has to be noticed that it is not the one only aspect of the employability concept.

Employability is being considered in different aspects. Some of the authors claim that employability is a personal feature, such as perception of the possibilities of finding a good, satisfying job, or a better job in case person already have one (Brown, Hesketh & Williams, 2003; Berntson, 2008). Fugate (2004) claims that employability is a connection of personal features and undertaken actions that allow person to find a job. Authors consider employability as a chance of finding a job (Forrier & Sels, 2003). From the different angle, employability is a possibility of getting satisfying job by graduates (Harvey, 2001). This definition highlights the educational role in the process of enlarging the employability of graduates. Conducted researches shows, that employers search for employees with broad competencies (Dearing, 1997 after: Baker, 2014) and that they value personal skills over knowledge (Saunders & Zuzel, 2010). The personal factors are those the most important when describing employability. High level of personal aspects gives the advantage on a labour market and a bigger chance of choosing the satisfactory job in both development and financial aspect. The second factor, which is not that visible is widely understood education. It is about both formal education and trainings.

Aspects which are not presented in the definitions above are labour market characteristics, demography, structure and the conditions of economy (Rada UE, 2012). Presented definitions do not show the impact of the business environment. Those are the companies that create the work demand and present the requirements for future employees. It is then an important factor which is creating the employability itself. To summarize, employability consists of three factors: higher education, personal factors, business approach.

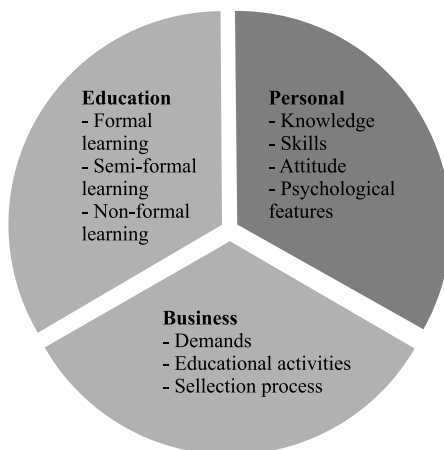
This definition is presented on Figure 1.

Educational factors may be divided into 3 parts. Young people are participating in formal education represented by universities. Employability is shaped in this factor by lectures, workshops or conferences that are organised on the universities. It is a highly formalised structure. Trainings that are organised by various institutions are the example of non-formal education. Students are taking part in different initiatives of students organizations or groups. They are engaged in different kinds of projects and they have a Chance of acquire skills such as group work, time management and others. They are also engaged in social life, which benefits in the network. All of those are the examples of an informal education (Okoń, 2001). The last group of factors are the personal factors.

In order to describe those factors, the subject of the employability has to be explained. The potential employees are the subjects of employability. They can be divided into students, graduates,

unemployed or disabled. It is important to note that those categories are not separated. In current Times those are young people who must become responsible for their own career (Pocztowski, 2008). Knowledge, skills, attitudes and psychological aspects such as temperament, goals and feelings of people are the components of personal factors. Three of them are the components of competencies, and psychological features fulfil the overall personal factors.

Figure 1. Factors that have an impact of employability



Source: own study.

Business factors describes the requirements for potential employees and all the actions that are developing students. Those actions may be realized by cooperation with universities in organizing workshops, preparing special developing programs for student or preparing interesting program of internships. Recruitment and selection processes are frequently neglected aspects. All of those actions have a huge impact on employability. There is also one more factor – recruitment and selection process.

3. Competencies

There are many approaches to defining competencies and presenting their division In the subject literature. In the traditional approach, competencies can be defined as the scope of tasks and entitlements associated connected with a particular workplace in which they have been formally assigned (Chelapa, 2003). Most researchers prefer a different approach, not related to the formal aspect of work but related with people. Thierry, Sauret and Monod (1994) claims that competence is all the knowledge, skills, experience and attitudes, as well as the employee's willingness to act under certain conditions. C. Levy-Leboyer (1997) defines competence as a set of behaviours that employees learn better than others and that helps them to work better. G. Filipowicz (2004) assumes that competence is all knowledge, skills and attitudes that enable them to perform tasks at the right level. On the other hand, A. Pocztowski (2001) does not point to specific elements of competencies, but defines them as the most enduring properties of man, that form the cause-effect

relation with above-average results of work. For the purposes of this paper, the definition of competence is as follows: a combination of knowledge, skills and attitudes of the individual, extended by the individual, personal qualities. It is based on two definitions. The first, defining the competence very widely given by Poczowski (2001) and the second, defining competencies in a narrower way by Filipowicz (2004). This definition of competencies will allow to research the individually perceived competencies.

Competency researches have been conducted for many years: CHEERS study from 1998-2000, Organization for Economic Co-operation and Development (OECD) 2001, Higher Education as a Generator of Strategic Competences (HEGESCO) and Research into Employment and Professional Flexibility (REFLEX) reports are just examples.

Over past few years various reports describing the competencies of employees has been realised in Poland. Those are SGH and Earnst & Young reports, reports from the Human Capital Report and the report "Young people on the labour market".

The report: "Competencies and qualifications sought by employers among higher education graduates entering the labour market" from 2012 presents the qualifications that are lacking among graduates. These are shown in Table 1.

Table 1. Selected qualifications in the context of the competence gap in Poland

Group	Qualifications	Competency Gap [%]
Personal	Self-esteem	25
	Loyalty	20
Interpersonal	Communication	20
	Negotiations	19
	Team work	18
Intellectual	Prioritising	25
	Forming and solving problems	19
Skills	Time management	25
	Project management	21

Source: own study based on the report "Competencies and qualifications sought by employers among college graduates entering the labour market".

The Human Capital Balance 2015 is the next edition of the year 2010 study. It provides objective data from a wide range of labour markets that include, among other things, information about employers' expectations, the level of employee competence and the preparation of young people to function in the labour market through higher education. According to the study report, the competence gap is mainly about soft skills such as communication and writing skills, team-work, adaptability, goal orientation and influence on others. The HCB study was resumed in 2016. Further analyses will be available from late 2017.

Also in the report "Young people on the labour market" from 2016, the students themselves stated that in order to be better prepared for entering the labour market they need more practice and better language skills.

These reports describe the level of competencies sought by employers on the labour market. They are not limited to the knowledge potential employees have, but also, or mainly, to the skills and attitudes of the student and other personality traits such as intelligence. The above-mentioned reports indicate the key competences, the most important competences for the labour market.

The concept of key competences can also be referred to the level not only of the entire market, but also of industries, enterprises or even teams. It also appears in the context of the education system, which is governed by the relevant law.

But the side of employees is not the only one that actually matters. If we are talking about the labour market, we need to take into consideration also the second side of the market – Potential employees. As it was mentioned before, graduates of higher educations confronted with the demands of the labor market, they are confronted with the demands of companies. It is crucial then to get to know what students think of their competencies and how do they develop them. In the research, focusing on students is determined by the fact that soon they will be the side of labor market themselves. The National Research of Competence of Students and Graduates was carried out by the Scientific Development Club (KNRO) at the Department of Labor Resource Management of the Faculty of Management at the Cracow University of Economics. The study was carried out within the framework of the “KNRO Research” project covered by the Honorary Patronage of His Magnificence prof. UEK dr hab. inż. Andrzej Chochół – Rector of the Cracow University of Economics.

4. Research methodology

4.1. People

The total of 1413 students were assigned for the surveyed population. Out of them 1057 were female and 356 were male. The average age was 22,93 years with a standard deviation of 3,106 years. Most of the surveyed people were 21 years old and the median was equal to 22 years old. The research was created in a way to create and exact structure of population inside the data gathered. The structure is presented in a Table 2.

Table 2. The structure of data (type of the institution) in comparison with the structure of students population in Poland

Structure of the Data				Structure of students		
Type	Number	% of data		% of total		Number
Economical	181	12.81		12.80		179 794
Artistic	17	1.20		1.21		16 938
PE	25	1.77		1.76		24 727
Medical	61	4.32		4.31		60 606
Pedagogical	46	3.26		3.28		46 122
Agriculture	71	5.02		5.04		70 792
Technical	303	21.44		21.45		301 412
University	425	30.08		30.05		422 211
Army school	25	1.77		1.79		25 187
Other	242	17.13	18.33	18.31	16.93	237 933
Naval	6	0.42			0.67	9 436
Ministry	6	0.42			0.32	4 520
Theological	5	0.35			0.39	5 455

Source: own study.

The presented structure is created based on the types of higher education institutions students choose as their place of developing competencies. As it is presented the structure of data is almost perfectly distributed among the people that took part in the research. The biggest difference is equal to 0.2%. The second structure that was mapped in accordance to the field of studies. This structure is presented in table 3.

Table 3. The structure of data (field of studies) in comparison with the structure of students population in Poland

Field of study	% of data		% of total	
Art.	2.15		2.39	
Human	3.53		1.62	
Languages and culture	5.85		5.86	
Educational	7.79		8.02	
Social	5.85	29.98	10.98	33.56
Management and economy	19.99		18.64	
Law and administration	4.14		3.95	
IT and Mathematics	7.23		5.85	
Physics, Chemistry, Geography	2.37		1.61	
Natural – Biological	1.82		1.70	
Architectural	5.25		5.50	
Technological	11.49		10.80	
Production	3.81		3.62	
Agriculture	1.93		1.76	
Medical	9.22		8.82	
Services	7.56		9.26	

Source: own study.

This structure is not mapped in a perfect way, although the differences between the data and the population are lower than 5% of total in each every case.

4.2. Tools used

An electronic based survey was used during the research. The survey consisted of two parts. In the first one people were to assess (self-descriptive method) the level of 17 competencies before and on the current phase of studies, based on the description of a level from 1 to 5 and the level of the university impact on that from 0 to 4. Second part of the survey consisted of various questions about the studies story, additional activities and forms of working etc.

4.3. Procedure

The survey was created as a google document and the link to this one was presented to students on various methods, but all connected with an on-line research. Students could

receive the survey from their University mail, from the University FB Page and by visiting one of the various students FB groups dedicated to the given field of study. The whole process took 9 weeks. After receiving the data the database required cleaning from the irrelevant records and after that process 1413 records were qualified. The statistical analysis was prepared using SPSS software.

The data collection procedure resulted in approaching 590 600 students from 124 different higher education institutions.

4.4. Variables

The research was an explorational one so the main variables are the competencies. There were 17 competencies in the research: Teamwork, Communication skills, Self-organizing skills, Team management, Stress tolerance, Multicultural environment skills, Initiative, Prioritizing, Responsibility, Engagement, Information search and processing, Problem identifying and solving, Mathematical skills, Software skills, Foreign language I, Foreign language II, Job searching skills.

All the competencies were assessed on a scale from 1 to 5. There were descriptions of every level included in the survey.

Level 1 – NO ADEQUATE behaviours, mistakes, clear INCOMPETENCE in finishing the tasks which involves the competence

Level 2 – TAKING ATTEMPTS of solving the case which involves the competence, UNCERTAINTY or LACK of SELF-RELIANCE in standard tasks, mistakes may occur

Level 3 – INDEPENDENCE, correct case solving, problems with harder tasks, mistakes may occur in new, not common tasks

Level 4 – EFFICIENT, VERY GOOD solving of most of the cases, including hard and not common tasks. Self-awareness and understanding of the competence and helping others in developing the competence.

Level 5 – PERFECT executing of EXCEPTIONALLY DIFFICULT tasks required CREATIVE APPROACH towards the competence. High level of AUTOMATIC work. Active in CONTINUOUS DEVELOPMENT of the competence.

5. Results

General results of the competency self-assessment are presented in Table 4.

Table 4. Results of the competency self-assessment

	N	Minimum	Maximum	Mean	Std. Deviation
Responsibility	1413	1	5	4.22	.800
Information search and processing	1413	1	5	4.21	.764
Prioritizing	1413	1	5	4.03	.803
Problem identifying and solving	1413	1	5	4.00	.780
Communication skills	1413	1	5	3.95	.827
Self-organizing skills	1413	1	5	3.85	.932
Teamwork	1413	1	5	3.84	.810
Software skills	1413	1	5	3.84	.970
Multicultural environment skills	1413	1	5	3.81	1.049
Engagement	1413	1	5	3.80	.956
Stress tolerance	1413	1	5	3.78	.971
Foreign language I	1413	1	5	3.63	.966
Mathematical skills	1413	1	5	3.54	1.097
Initiative	1413	1	5	3.47	1.047
Team management	1413	1	5	3.46	1.073
Job searching skills	1413	1	5	3.34	1.088
Foreign language II	1413	1	5	2.20	1.135
Valid N (listwise)	1413				

Source: own study.

Using a factor analysis with a varimax rotation with Kaiser normalization it was possible to designate four factors out of 17 variables. Those factors were named Personal effectiveness (Factor 1) Professional work (Factor 2), Technical and analytical (Factor 3) and language and culture (Factor 4). The statistical results are presented in Table 5.

Table 5. Rotated Component Matrixa

	Component			
	1	2	3	4
Initiative	.734	.169	.082	.118
Teamwork	.723	.140	.041	.069
Team management	.717	.184	.156	-.003
Communication skills	.702	.210	.054	.156
Engagement	.506	.432	.043	.023
Job searching skills	.474	.213	.175	.064
Prioritizing	.170	.763	.096	.078
Responsibility	.200	.702	.056	-.017
Self-organizing skills	.189	.693	.124	.082
Stress tolerance	.278	.475	.178	.102

Software skills	.096	.059	.782	.083
Mathematical skills	.031	.088	.760	.004
Problem identifying and solving	.377	.358	.477	.125
Information search and processing	.242	.399	.471	.127
Foreign language I	.034	.057	.176	.787
Foreign language II	.083	.031	-.018	.774
Multicultural environment skills	.375	.153	.036	.441
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

Source: own study.

The average differences. The results of the test of the difference test of the average did not confirmed the sphericity. The result of Greenhouse-Geiser is $F(3,3766) = 583.97$, $p < 0.05$. The statistics of each factor are as follows:

Factor 2 – Professional Work – $M = 3.97$, $SD = 0.63$

Factor 3 – Technical and Analytical – $M = 3.90$, $SD = 0.64$

Factor 1 – Personal Effectiveness – $M = 3.64$, $SD = 0.68$

Factor 4 – Language and Culture – $M = 3.21$, $SD = 0.74$

For the types of schools ANOVA analysis was performed for each factor.

Factor 1 – Personal Effectiveness – $F(12,1400) = 3.41$, $p < 0.01$

With Bonferroni test: other types scored better than medical and technical

Factor 3 – Technical and Analytical – $F(12,1400) = 7.746$, $p < 0.01$

With Bonferroni test: economy scored better than medical, technical scored better than medical, pedagogical, universities, agriculture and artistic

Factor 4 – Language and Culture – $F(12,1400) = 3.107$, $p < 0.01$

With Bonferroni test: economy scored better than agriculture and technical

Using the t-student test for factors and the fact of being involved in activities was checked.

Table 6. Descriptive statistics of factors x activities

	Activities	N	Mean	Std. Deviation	Std. Error Mean
Factor_1_Personal_Effectiveness	No	686	3.4755	.69479	.02653
	Yes	727	3.7980	.62101	.02303
Factor_2_Professional_Work	No	686	3.9195	.65414	.02498
	Yes	727	4.0165	.60961	.02261
Factor_3_Technical_and_Analytical	No	686	3.8699	.66954	.02556
	Yes	727	3.9216	.60959	.02261
Factor_4_Language_and_Culture	No	686	3.1113	.72478	.02767
	Yes	727	3.3118	.75067	.02784

Source: own study.

Factor 1 – $t(1,1411) = -9.212$, $p < 0.001$

Factor 2 – $t(1,1388.14) = -2.881$, $p = 0.04$

Factor 3 – $t(1,1411) = -1.519$, $p = 0.129$

Factor 4 – $t(1,1410.25) = -5.108$, $p < 0.0011$

Using the t-student test for factors and the fact of working.

Table 7. Descriptive statistics of factors x work

	Work	N	Mean	Std. Deviation	Std. Error Mean
Factor_1_Personal_Effectiveness	No	354	3.3917	.67619	.03594
	Yes	1059	3.7249	.65688	.02019
Factor_2_Professional_Work	No	354	3.8376	.62306	.03312
	Yes	1059	4.0135	.63081	.01938
Factor_3_Technical_and_Analytical	No	354	3.8298	.65982	.03507
	Yes	1059	3.9188	.63157	.01941
Factor_4_Language_and_Culture	No	354	3.1365	.69704	.03705
	Yes	1059	3.2405	.75854	.02331

Source: own study.

Factor 1 – $t(1,59121) = -9.212$, $p < 0.001$

Factor 2 – $t(1,1388.14) = -2.881$, $p = 0.04$

Factor 3 – $t(1,1411) = -1.519$, $p = 0.129$

Factor 4 – $t(1,1410.25) = -5.108$, $p < 0.001$

Table 8. Descriptive statistics of factors x studying abroad

	Study abroad	N	Mean	Std. Deviation	Std. Error Mean
Factor_1_Personal_Effectiveness	No	1322	3.6267	.68002	.01870
	Yes	91	3.8553	.59691	.06257
Factor_2_Professional_Work	No	1322	3.9610	.63438	.01745
	Yes	91	4.0907	.60727	.06366
Factor_3_Technical_and_Analytical	No	1322	3.8916	.64123	.01764
	Yes	91	3.9670	.61600	.06457
Factor_4_Language_and_Culture	No	1322	3.1631	.72123	.01984
	Yes	91	3.9597	.68283	.07158

Source: own study.

Factor 1 – $t(1,1411) = -3.125$, $p = 0.002$

Factor 2 – $t(1,103.99) = -1.96$, $p = 0.052$

Factor 3 – $t(1,103.89) = -1.126$, $p = 0.263$

Factor 4 – $t(1,104.31) = -10.724$, $p < 0.001$

6. Discussion

Students in Poland assess their competencies on high level. It is worth to point out that the least scored is Foreign language II. Levels of other competencies are assessed as average or above. All acquainted level 3,34 or higher. Unfortunately, job seeking scored only 3,34 which is not a great achievement. It is possible that in general programs of studies and the approach towards studies must be changed in order to prepare students better for entering labour market. In general high

scores shows that students in Poland have a quite high level of self-esteem. It may happen, that the scores are little bit higher than it is in reality.

Students develop their competencies in a various ways. Over half of the students (51.5%) is engaged in various side activities it includes students organizations, NGO and other voluntary activities. This work is beneficial for developing their competencies in three out of four factors. Students who are engaged in activities have better personal effectiveness, professional work and language and culture competencies. Activities do not support the development of technical and analytical competency.

Almost $\frac{3}{4}$ of students (74.95%) is engaged in work. Working allows to develop three out of four factors. What is interesting working does not develop technical and analytical competencies.

Students who spend their studying time abroad are a minority. Only 91 of them (6.5%) decided to spend at least semester of their studies abroad. Although the offer of Erasmus programmes, double diplomas and bilateral cooperation is constantly growing, not many students decides to this form of development. It may be because of the lack of experience abroad and lack of financial resources. Studying abroad will be beneficial for developing professional effectiveness and language and culture competencies.

The research presented in this chapter has also some drawbacks. The first and most important one is the chosen method. Self-descriptive method may give higher results and is purely subjective. The results are in the hands of each person that takes part in the survey. Some other methods of checking competencies may be implemented. It would be good to use an expert method or use some psychology tests to asses competencies.

Another drawback is connected with the procedure. Online procedure is time consuming, give a very small outcome compared to the work and there is almost no control over the people who are taking parts. We can not be sure of the quality of data. Preparing paper-pencil method would give much better control over the responses.

The topic of competencies and defining them is also an important issue. It is hard to find or create the situation in which every person that took part in the survey understand given competency in the same way.

7. Conclusion

In students opinion, their competencies are marked as average and high in most of the cases. Students are aware of the importance of developing competencies and apart from taking part in formal education, they are using various methods of acquiring new knowledge, skills and attitudes. They are taking part in various activities, working or studying abroad. The aim of the research is although very wide, and one research will not give the answers to all the questions that may appear in the heads of recruiters in companies, researchers or students themselves. It is important to continusly check the level of competencies using different methods and different perspectives. I think that current number of reports should be increased by as much of empirical data about competencies as possible.

Bibliography

1. Baker, B. (2014). Employability Skills: Maintaining Relevance in Marketing Education. *The Marketing Review*, 1(134), 29-48.
2. Berntson, E. (2008). *Employability Perceptions: Nature, Determinants, and Implications for Health and Wellbeing*. Stockholm: Stockholm University.
3. Beveridge, W. (1909). *Unemployment: A Problem of Industry*. London: Longmans.
4. Brown, P., Hesketh, A., & Williams, S. (2003). Employability in a Knowledge-driven Economy. *Journal of Education and Work*, 16(2), 107-126.
5. Chelpa, S. (2003). *Kwalifikacje kadr kierowniczych przedsiębiorstw przemysłowych. Kierunki i dynamika zmian*. Wrocław: Wydawnictwo Akademii Ekonomicznej.
6. Filipowicz, G. (2004). *Zarządzanie kompetencjami zawodowymi*. Warszawa: PWE.
7. Forrier, A., & Sels, L. (2003). The Concept Employability: A Complex Mosaic. *International Journal of Human Resource Development and Management*, 3(2), 103-124.
8. Fugate, M., Kinicki, A.J., & Ashforth, B.E. (2004). Employability: A Psychosocial Construct, Its Dimensions and Applications. *Journal of Vocational Behavior*, 65, 14-38.
9. Górniak, J. (2014). *Kompetencje Polaków a potrzeby polskiej gospodarki*. Warszawa: PARP.
10. Harvey, L. (2001). Defining and Measuring Employability. *Quality in Higher Education*, 7, 97-109.
11. Kocór, M., Strzebońska, A., & Dawid-Sawicka, M. (2015). *Rynek pracy widziany oczami pracodawców*. Warszawa: PARP.
12. Kujawska, J., & Szuwarzyński, A. (2009). Studia podyplomowe w świetle zaleceń Europejskich Ram Kwalifikacji. *E-mentor*, 5.
13. Levy-Leboyer, C. (1997). *Kierowanie kompetencjami. Bilans doświadczeń zawodowych*. Warszawa: Poltext.
14. OECD (2001). *Competencies for the Knowledge Economy*. Paryż.
15. Okoń, W. (2001). *Nowy słownik pedagogiczny*. Warszawa: Wydawnictwo Akademickie „Żak”.
16. Pocztowski, A. (2001). Wokół pojęcia kompetencji i ich znaczenia w zarządzaniu zasobami ludzkimi. [in:] B. Urbaniak (Ed.), *Gospodarowanie pracą*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
17. Pocztowski, A. (2007). *Zarządzanie zasobami ludzkimi*. Warszawa: PWE.
18. Pocztowski, A. (2008). *Zarządzanie zasobami ludzkimi. Strategie – procesy – metody*. Warszawa: PWE.
19. Saunders, V., & Zuzel, K. (2010). Evaluating Employability Skills: Employer and Student Perceptions. *Bioscience Education*, 15, Article 2.
20. Thierry, D., Sauret, C., & Monod, N. (1994). *Zatrudnianie i kompetencje w przedsiębiorstwach w procesie zmian*. Warszawa: Poltext.

Chapter 19

Assessment and Development Centre – Methods of Employees’ Competencies Appraisal – Similarities and Differences¹

Anna Dolot

1. Introduction

Employees’ competencies appraisal is a challenging process. It demands time, adequate tools and other tangible as well as intangible resources. It also involves emotions and may have important consequences: positive or negative for both – employees and employers.

Assessment Centre and Development Centre are methods used for employees’ competencies appraisal. Although the methodology of Assessment and Development Centre preparation and conducting seems to be similar, there are important differences in the following aspects: aims, participants and process of both methods.

The aim of this paper is to highlight similarities and differences between Assessment and Development Centre methods in the process of employees’ competencies appraisal.

2. Assessment and Development Centre – the common character of both methods

The nature, definitions, character of competencies, their relation with employees’ behaviours and job performance have been widely described (Levy-Leboyer, 1997, pp. 19-26; Whiddett & Hollyforde, 2003, p. 11; Thierry, Sauert & Monod, 1994, p. 6; Pawlak, 2003, p. 138; Bugaj & Szarucki, 2014, pp. 282-286). The specification of employees’ competencies appraisal with the use of Assessment and Development Centre methods has already been described by the author of this paper as well (Dolot, 2016) and has also been analysed by others (Woodruffe, 2003; Thornton & Rupp, 2006; Wąsowska-Bąk, Górecka & Mazur, 2012; Brachowska-Przeniosło, Hubisz,

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Iwanowska-Polkowska & Trzeptota, 2016; Wieczorek, 2010; Padzik, 2016, Witkowski, 1998). Analyzing Polish and international literature, there seems to be a need for clarification of attitudes towards similarities and differences in both methods.

The origins of Assessment Centre (AC) go presumably back to the times of Antiquity, when it was used in the process of recruiting officers of Roman legions (Wieczorek, 2010, p. 10). Most authors trace the origin of AC back to the use of simulation methods to identify leadership potential in the German army before 1939 (Iles, 1992, p. 79). Assessment Centres were established by selection boards of the British Ministry of War, which, since 1942, were occupied with the selection of officers (Woodruffe, 2003, p. 16). Due to using traditional selection methods (conversations geared to examine the candidate's educational and military service achievements), some soldiers with real potential were rejected. The new system consisted of group work, objective selection tests and individual talks. As it brought about positive effects, it was introduced in the whole army. In the United States, Assessment Centres flourished in a private sector. The method was used for the first time by a psychologist D. Bray in AT&T company, in 1956 (Bray, 1964, pp. 225-234; Bray, Campbell & Grant, 1974).

Traditionally, Assessment Centres were designed to measure relatively specific sets of behaviours known as "dimensions" (Thornton & Byham, 1982). Recently AC architects have begun to assess broader competencies (e.g. customer service orientation, team work) each of which is often a complex combination of traditional dimensions (Lievens & Thornton, 2005, p. 8). Behavioural dimensions are assigned to competencies (Bujacz, 2009, p. 105), can be defined within the science and practice of AC as a constellation or group of behaviours that are specific, observable, measurable and verifiable, that can be reliably and logically classified together and that are relevant for the purpose of the assessment (Thornton, Rupp & Hoffman, 2014). AC involves multiple assessment tools such as behavioural simulation exercise, structured interviews, situational judgment tests, role-plays, group discussion, presentation (Panc, 2015, p. 395). All of them should be work-related (Jackson et al., 2016, p. 1; Griffiths & Allen, 1987, p. 18). Every AC should be prepared on the basis of a thorough job analysis (Brownell, 2005, p. 9; Bujacz, 2009, p. 105; Beardwell & Wright, 2004, p. 214). All of AC's participants' behaviours are observed and assessed by trained assessors. AC helps a given organisation to make a decision in an area of recruitment and selection process, employees' promotion or qualifying them to development programmes. A distinctive feature of AC is its aim, i.e. selection – choosing adequate people and rejecting others (Woodruffe, 2003, p. 11).

AC is widely described in literature, while Development Centre (DC) has not received so much attention so far. This method of competency appraisal has evolved from AC. Although DC is similar in preparation and practice, it adopts a different aim and here starts the general idea of this paper. DC is also a method which aims at competencies appraisal via observation of participants and their behaviours shown in particular tasks. However, it mainly concentrates on evaluating their potential, i.e. their strengths and areas that still need to be developed. Employees are evaluated on the basis of their behaviors in a number of exercises and tasks. The stress is put on indicating strengths and weaknesses of each employee in order to trigger their development (Cohen, 2001, p. 278).

What are the elements that both methods have in common? A few areas can be listed, specially the general aim and the general idea of preparation and process of AC and DC.

AC and DC can be defined by their general aim: competencies appraisal. Both methods are prepared on the basis of a thorough job position analysis (Bujacz, 2009, p. 105; Brownell, 2005, p. 9; Meiring & Buckett, 2016, p. 3). Both methods present a multidimensional assessment

process during which candidates are watched by a group of objective, trained judges (also called assessors). Employees assessed by AC/DC take part in a series of exercises/tasks whose main goal is to simulate tasks, especially demanding ones, performed at one's workplace.

The common feature of both methods, and, at the same time, their weakness, is a relatively high cost of preparation and carrying out the whole process (Wąsowska-Bąk, Górecka & Mazur, 2012, p. 18), not to mention the fact they are time-consuming and labour-intensive (Wieczorek, 2010, p. 15).

3. What are the differences?

3.1. General areas of differences between AC and DC

Regardless of numerous similarities, both methods are characterized by certain differences, deriving already from the name itself. These differences are presented in Table 1.

Table 1. Differences between AC and DC

Areas of differences	Assessment Centre	Development Centre
Particular purpose	Selection (e.g. for a specific job position or a development programme).	Development (employees' potential appraisal and development plan).
Process	One exercise after another.	Possibility of trainings/workshops and feedback sessions between exercises. Appraised competencies description for the participants.
Who takes part in	Candidates (not always, but usually) not employed in the organisation. Assessors – usually one assessor appraises two candidates (1:2).	Participants, who are employees. Assessors, who are also called "observers" – there is a possibility that one assessor appraises one participant (1:1).
Feedback	The zero-one character: admitted or rejected.	A report on participants' strengths and developmental areas and a plan for the participants' development.

Source: own study.

All above described areas are described with more detail in the next part of the text.

3.2. Differences in a particular purpose

What is the difference between AC and DC? This is a particular purpose of each method. Although both methods assess competencies, in case of AC this assessment serves candidate selection (most frequently it is a candidate for a particular position). When it comes to DC, it assesses a given employee's strengths and development areas in their current or future position (e.g. the one that he shall occupy once he is promoted). It means that the AC procedure chooses one or a few best candidates for a given position. Thus, their selection is the outcome. The DC procedure provides all employees with extensive feedback on their professional potential – strengths and

development areas, often defining recommended activities (e.g. training) aiming at one's development. In this case, the aim is to assess all employees' potential and to define their development plan. The character of DC and the way it is performed (see: further text), it focuses on evaluation of the following aspects (Padzik, 2016, p. 2002):

- current competencies (lacks and potential),
- readiness, openness, willingness to learn (to develop),
- the pace of learning and the extent to which a given employee makes use of someone's advice and knowledge,
- plans prepared by employees, concerning their own development.

The literature on the subject offers a characteristic description of AC and DC, underlining their differences: "AC serves solely evaluation (and this is strict judgement, explicit, impartial and "ruthless" – in its mute but noticeable commentary), whereas DC was created to support one's development, thus it is good, virtuous, and serves those who are its subjects" (Padzik, 2016, p. 200).

3.3. Differences in performing the process

The differences can be observed as well in the process of both methods. During AC each exercise is accomplished one after another. The developmental character of DC enables trainings and workshops between all exercises, in which participants are appraised (Padzik, 2016, p. 201). This activity, already at this stage, aims at development. It is also underlined that during the DC process its participant can get feedback after each exercise and pieces of advice to be used in the exercises to come (Griffiths & Allen, 1987, pp. 22-25; Padzik, 2016, p. 201). What is more, while the DC process is under way, developmental activities for participants are already being planned.

Another important element within the very process is the fact that DC requires complete openness in communication, which means, among others, the necessity of defining competencies in a very precise way (Woodruffe, 2003, p. 54). Usually, at the beginning of the DC process, its participants do several exercises aiming at enriching their knowledge about competencies and their definitions. Before approaching each exercise, competencies concerning it are thoroughly explained. Additionally, exercises are discussed more thoroughly so that the participants know what they are precisely about.

3.4. Differences concerning participants and terminology regarding it

The element that differentiates both methods are their participants. AC targets candidates, most often (though not always) outside the organisation², whereas DC participants are employees of a given organization. In business practice this diversification can be seen in phrases: "candidate for AC" and "DC participant".

² It is possible that an AC participant is an employee of a given organisation. It can happen in case of internal recruitment and when AC aims at selection in a different area that employing someone, e.g. choosing participants for a developmental programme for which only some participants are qualified.

Although both professional literature and commercial practice make use of the word “assessor”, during AC it is possible to use the word “assessor”, whereas DC recommends the word “observer” or a similar one (Woodruffe, 2003, p. 55). It is a consequence of the aims discussed above and the character of both methods.

It is also worth stressing that AC and DC might also differ in the number of assessors. AC assumes that one assessor evaluates two candidates (Woodruffe, 2003, p. 183; Beardwell & Wright, 2004, p. 214), whereas in case of DC the ratio of assessors to participants equaling 1:1 is acceptable.

3.5. The character of feedback

It seems that feedback received by a given participant after the whole process of AC or DC is one of the elements differentiating both methods the most. AC is of the zero-one character: a participant is either admitted or rejected. It is worth underlying that currently when the labour market is becoming more and more the employee market, companies happen to organise feedback session meetings for rejected candidates. It seems to be an element of professional Employer Branding policy. Nevertheless according to the methodology of AC, it is not obligatory. It looks completely different in case of DC. Here, a feedback session has a great meaning and value. This kind of meeting takes even 2 hours (Brachowska-Przeniosło et al., 2016, p. 130). Its main aim is a report on the observed participants' strengths and developmental areas in each exercise and creating a plan for the participants' development (including precise information about recommended trainings, literature, activities), and even their career path. The feedback session has a developmental aim itself (Boehm, 1985, p. 43; Grobelna 2014, pp. 326-330) that is why it is so crucial during DC.

These developmental aspects are important for both – employees and employers. It is highlighted that those who have a vision of personal development and their own career paths show greater motivation and commitment to work (Kusio, 2016, p. 164). It is beneficial for both sides.

4. Ambiguous positions

Many scholars highlight the differences between AC and DC (Woodruffe, 2003; Wąsowska-Bąk, Górecka & Mazur, 2012; Brachowska-Przeniosło et al., 2016; Wieczorek, 2010; Padzik, 2016; Adams, 1995). Many underline that the aim of AC is selection and that this method is used for the recruitment and selection purpose (Ludwiczynski, 2006, p. 213, Kawka & Listwa, 2010, pp. 137-138).

From the scientific and objective point of view, it should be also highlighted that there are scholars who do not differentiate between AC and DC. Thornton (one of the best specialists in the area of AC methodology) lists the aims of AC as followed: recruitment, selection, placement, training and development, performance appraisal, organizational development, human resource planning, even layoff (Thornton & Rupp, 2006, pp. 31-33). Also other scholars describe a wide variety of AC applications: from recruitment and selection, via development and even reorganization (Bobrow & Leonards, 1997; Jackson, Michaelides, Dewberry & Kim, 2016, p. 1; Boehm, 1985, pp. 40-420; (Lopes et al., 2015, p. 527). It seems that in foreign publications the term DC is used proportionally less frequently.

There also exists a term „Developmental Assessment Center” (DAC) (Appelbaum, Harel & Shapiro, 1998; Hetty van Emmerik, Bakker & Euwema, 2008; Dreher & Dougherty, 1997; Lievens, 2002; Fleenor, 1996). An important advantage of the developmental assessment center approach is that participants receive detailed feedback concerning their strengths and weaknesses on the managerial dimensions measured (Lievens, 2002, p. 675), it is designed to provide feedback and to recommend developmental activities such as training (Fleenor, 1996, p. 320). Although the ACs’ observers are looking for the aforementioned competencies during the selection of candidates, the DACs’ main objectives remain with the continual development of such competencies that are judged vital by the organization (Appelbaum, Harel & Shapiro, 1998, p. 6). It seems that this term is also used interchangeably with DC described above.

5. Conclusion

Both business practice and literature offer different methods of employees’ appraisal. AC and DC are examples. The main aim of AC is selection, and the main aim of DC is the appraisal of employees’ potential and their development plan. Although AC seems to be more popular and sometimes interchangeably used with DC, the specifications of those methods – particular purpose, process and their participants – are so different that it is recommended to approach them separately.

Bibliography

1. Adams, K. (1995). Development Centres. *IRS Employment Review*, 596.
2. Appelbaum, S.H., Harel, V., & Shapiro B. (1998). The Developmental Assessment Centre: The Next Generation. *Career Development International*, 3(1), 5-12.
3. Beardwell, J., & Wright, M. (2004). Recruitment and Selection. [in:] I. Beardwell, L. Holden & T. Claydon (Eds.), *Human Resource Management. Contemporary approach*. Harlow: Prentice Hall.
4. Bobrow, W., & Leonards, J.S. (1997). Development and Validation of an Assessment Center during Organizational Change. *Journal of Social Behavior and Personality*, 12(5), 217-236.
5. Boehm, V.R. (1985). Using Assessment Centres for Management Development – Five Applications. *Journal of Management Development*, 4(4), 40-53.
6. Brachowska-Przeniosło, K., Hubisz, P., Iwanowska-Polkowska, M., & Trzepiota, M. (2016). *Model Assessment i Development Center*. Kraków: Ridero IT Publishing.
7. Brownell, J. (2005). Predicting Leadership: The Assessment Center’s Extended Role. *International Journal of Contemporary Hospitality Management*, 17(1), 7-21.
8. Bugaj, J., & Szarucki, M. (2014). Identyfikacja kluczowych kompetencji organizacji w misji uczelni publicznych. [in:] R. Borowiecki & A. Jaki (Eds.), *Restrukturyzacja w obliczu wyzwań gospodarki globalnej*. Kraków: Fundacja Uniwersytetu Ekonomicznego w Krakowie.
9. Bujacz, A. (2009). Jak działa Assessment Center? Zagadka trafności ośrodków oceny. *Zarządzanie Zasobami Ludzkimi*, 3-4, 105-114.
10. Cohen, L. (2001). Careers. [in:] T. Redman & A. Wilkinson (Eds.), *Contemporary Human Resource Management*. Harlow, England: Prentice Hall.

11. Dolot, A. (2016). Competency Assessment with the Help of Assessment and Development Center Methods. [in:] R. Oczkowska, A. Jaki & B. Mikula (Eds.), *Knowledge – Economy – Society. Strategies, Concepts and Instruments of Management*. Cracow: Foundation of The Cracow University of Economics.
12. Dreher, G.F., & Dougherty, T.W. (1997). Substitutes for Career Mentoring: Promoting Equal Opportunity Through Career Management and Assessment Systems. *Journal of Vocational Behavior*, 51(1), 110-124.
13. Fleenor, J.W. (1996). Constructs and Developmental Assessment Centers: Further Troubling Empirical Findings. *Journal of Business and Psychology*, 10(3), 319-335.
14. Griffiths, P., & Allen, B. (1987). Assessment Centres: Breaking with Tradition. *Journal of Management Development*, 6(1), 18-29.
15. Grobelna, A. (2014). Feedback jako narzędzie menedżerskie wzmacniające motywację i rozwój zasobów ludzkich. Możliwości wykorzystania w sektorze usług hotelarskich. [in:] A. Niezgoda & G. Gołembski (Eds.), *Turystyka wobec zmian współczesnego świata. Strategie, marketing, programowanie*. Poznań: Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
16. Jackson, D.J.R., Michaelides, G., Dewberry, C., & Kim, Y.-J. (2016). Everything That You Have Ever Been Told About Assessment Center Ratings Is Confounded. *Journal of Applied Psychology*, 101(7), 976-994.
17. Kawka, T., & Listwan, T. (2010). Dobór pracowników. [in:] T. Listwan (Ed.), *Zarządzanie kadrami*. Warszawa: Wydawnictwo C.H. Beck.
18. Kusio, T. (2016). Human Capital Management in a Nonprofit Organization. [in:] R. Oczkowska, A. Jaki & B. Mikula (Eds.), *Knowledge – Economy – Society: Strategies, Concepts and Instruments of Management*. Cracow: Foundation of the Cracow University of Economics.
19. Lévy-Leboyer, C. (1997). *Kierowanie kompetencjami. Bilanse doświadczeń zawodowych*. Warszawa: Poltext.
20. Lievens, F. (2002). Trying to understand the different pieces of the construct validity puzzle of assessment centers: an examination of assessor and assessee effects. *Journal of Applied Psychology*, 87(4), 675-686.
21. Lievens, F., & Thornton, G.C., III (2005). Assessment Centers: Recent Developments in Practice and Research. [in:] A. Evers, O. Smit-Voskuil & N. Anderson (Eds.), *Handbook of Selection*. Oxford: Blackwell Publishing.
22. Lopes, S.A., Sarraguça, J.M.G., Lopes, J.A., & Duarte, M.E. (2015). A New Approach to Talent Management in Law Firms: Integrating Performance Appraisal and Assessment Center Data. *International Journal of Productivity and Performance Management*, 64(4), 523-543.
23. Ludwiczynski, A. (2006). Alokacja zasobów ludzkich organizacji. [in:] H. Król & A. Ludwiczynski, *Zarządzanie zasobami ludzkimi. Tworzenie kapitału ludzkiego organizacji*. Warszawa: PWN.
24. Meiring, D., & Buckett, A. (2016). Best Practice Guidelines for the Use of the Assessment Centre Method in South Africa (5th edition). *Journal of Industrial Psychology*, 42(1), 01-15.
25. Padzik, K. (2016). *Ocena zintegrowana – Assessment i Development Center: nowa metodologia sytuacyjnej oceny kompetencji w świetle nowatorskiej koncepcji potencjału*. Warszawa: Wolters Kluwer.
26. Panc, I. (2015). Investigating the Entrepreneurial Potential of Students – Design and Preliminary Validity Data of the Assessment Center Method. *Procedia – Social and Behavioral Sciences*, 203, 393-399.

27. Pawlak, Z. (2003). *Personalna funkcja firmy – procesy i procedury kadrowe*. Warszawa: Poltext.
28. Thierry, D., Sauert, Ch., & Monod, N. (1994). *Zatrudnienie i kompetencje w przedsiębiorstwach w procesach zmian*. Warszawa: Poltext.
29. Thornton, G.C., III, Rupp D.E., & Hoffman, B.J. (2014). *Assessment Center Perspectives for Talent Management Strategies*. New York: Routledge.
30. Thornton, G.C., III, & Byham, W.C. (1982). *Assessment Centers and Managerial Performance*. New York: Academic Press.
31. Thornton, G.C., III, & Rupp, D.E. (2006). *Assessment Centers in Human Resource Management, Strategies for Prediction, Diagnosis, and Development*. London: Lawrence Erlbaum Associates, Inc., Publishers.
32. Van Emmerik, I.J.H, Bakker, A.B., & Euwema, M.C. (2008). What Happens after the Developmental Assessment Center?: Employees' Reactions to Unfavorable Performance Feedback. *Journal of Management Development*, 27(5), 513-527.
33. Wąsowska-Bąk, K., Górecka, D., & Mazur, M. (2012). *Assessment/Development Center*. Gliwice: Wydawnictwo Helion.
34. Whiddett, S., & Hollyforde, S. (2003). *A Practical Guide to Competencies: How to Enhance Individual and Organisational Performance*. London: CIPD House.
35. Wieczorek, J. (2010). *Zatrudnienie i rozwój pracowników z zastosowaniem metody Assessment Center/Development Center*. Gdańsk: Ośrodek Doradztwa i Doskonalenia Kadr.
36. Witkowski, T. (1998). *Nowoczesne metody doboru i oceny personelu*. Kraków: Wydawnictwo Profesjonalnej Szkoły Biznesu.

Chapter 20

Employee's Market – Implications for Employers¹

Urszula Bukowska

1. Introduction

Publications regarding the labor market usually highlight the problem of excessive labor supply or unemployment. Little attention is paid to the shortage of labor supply. Meanwhile, in Poland more and more employers are experiencing the situation that the demand for labor exceeds its supply. Therefore, the purpose of this article is to determine the effects of labor supply shortage for employers. Research methods such as analysis of the literature concerning labor market, observation of employer behavior, interviews with organization managers (construction industry – micro- and medium-sized enterprises, business services – large international companies) were used. On this basis, the employee's market was characterized and the factors shaping it were pointed out. It also presents the difficulties encountered by employers in a situation of shortage of labor supply and the possibility of counteracting them.

2. Supply and demand as elements of the labor market

The labor market is a multidimensional category. It can be perceived from the perspective of different disciplines (economics, management, sociology, ethics), in macroeconomic and microeconomic terms. The subject of this paper requires taking into consideration both views and the context of economics and management. The labor market is defined in different ways, and the examples of definitions are presented in Table 1.

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Table 1. Definitions of labor market

Author	Definition	Source
M. Pilc	The labor market is an institutional space where exchange takes place; the participants of this exchange are the employer (buyer) and the employee (seller), the subject of the exchange is the service of work, and the price – the agreed remuneration	(Pilc, 2014, p. 13)
A. Skórska	The labor market is the place where employers (representing demand for labor) contact employees (creating labor supply), where work is exchanged and its value is expressed in the form of remuneration (salary)	(Skórska, 2016, p. 13)
B. Sławecki	The labor market is the external context of the processes related to hiring employees and looking for job; a set of external economic, psychological, social and cultural determinants that really affect the shape and behavior of the processes	(Sławecki, 2011, p. 267)
J. Szaban	The labor market means the people who can and want to work and employers willing to employ workers	(Szaban, 2016, p. 15)

Source: own work.

The first two definitions refer to the essence of the commodity market in which the subject of exchange (work), its price (remuneration) as well as demand and supply are present.

The definitions proposed by Sławecki and Szaban unduly restrict the essence of the labor market. Regarding the first one, it can be noticed that the labor market is undoubtedly the determinant not only of recruiting employees but of all areas of task related personnel function, i.e. planning, assessment, development, shaping working conditions, remuneration. Moreover, the conditions for all these processes are created not only by the external but also by the internal labor market.

The definition proposed by J. Szaban restricts the supply of labor only to employees. Whereas, the supply of work, otherwise the labor resources, includes those who are working or capable and ready to take a job as well as those who seek it. In quantitative terms, this is the sum of the employed and the unemployed. It is worth mentioning, that the quantitative dimension of labor supply is sometimes defined as the total number of hours offered by the employed and the unemployed on the market (Pilc, 2014, p. 14). The qualitative dimension of labor supply can be understood as a set of personal qualities, qualification, availability attributed to people creating labor resources. This understanding of the labor supply is considered as a total, while the actual one is created by the unemployed who look for job and want to take it (Unolt, 1999, p. 34).

The labor supply as a macroeconomic category is shaped by many factors. First of all, demographic, economic, political, social and cultural factors must be pointed here. Recently, the effects of globalization on the labor supply have been strongly noticeable. Greater mobility of labor resources, both sectoral and geographical, has been noted (Cuyvers, De Lombaerde & Rayp, 2011, p. 255). In terms of microeconomics, the costs borne (e.g. commuting time) and the benefits (including the level and structure of remuneration) received by employees are particularly important.

The demand for labor is the demand for employees reported by all employers under certain socio-economic conditions (Skórska, 2016, p. 47). In other words, job positions where there are employees hired as well as vacancies. In quantitative terms, it is the total number of occupied and vacant posts (Zieliński, 2017, p. 9). Qualitatively expressed demand for work is the qualification

required for a work position. Similarly to labor supply, such demand can be defined as global (total). On the other hand, the actual demand means the unoccupied jobs (Unolt, 1999, p. 29).

It has been pointed out that economic factors, such as economic situation, economic growth, the condition of economies of trading partners, the economic policy of the state, technological progress, and political and social factors belong to the determinants of demand for labor in macroeconomic terms (Skórska, 2016, p. 49). In microeconomic terms, the importance is attached to demand for goods and services, economic condition, labor costs, labor productivity, work organization, rate and structure of investments (Skórska, 2016, p. 49). The type and volume of production (services provided) set the demand for labor at such level that ensures the organization's stable functioning in pursuit of current and strategic objectives. Employers' decisions related to labor demand are based on the estimation and comparison of employee productivity and the cost of employment. If in the long term these costs are equal or lower than the discounted expected productivity of this employee, this may have a positive impact on labor demand (Gajderowicz, 2016, p. 30).

According to J. Unolt (1999, pp. 30-31), the aforementioned factors are primary. Therefore, the set of factors should be supplemented by the secondary ones – the factors influencing the demand for compensation (related to the need to replace outgoing employees) and extension (seeking to increase employment in the organization). The factors contributing to influence the demand for compensation include loss of natural resources of the organization (death, retirement), socially justified loss (maternity leave, parental leave), dismissal of employees on the initiative of the employer or employees, reduction of working time. Expanding demand is affected by investments, the desire to increase the number of shifts.

The relation of labor supply and demand shows the situation on the labor market. Equilibrium in this market is achieved when demand for labor equals labor supply. Since the employed are at both the demand side and the supply, this means that the number of vacancies equals the number of unemployed (Zieliński, 2017, p. 20). This is an ideal situation that cannot be achieved in the long run (Unolt, 1999, p. 37). It results from the dynamic relations on the labor market. In addition, when comparing demand and supply, the qualitative dimension should also be taken into account, i.e. the profile of vacant posts and the profile of the unemployed.

It is obvious that equilibrium is not the only possible situation in the labor market. In addition to this, there are two possible situations of imbalance, i.e. excess supply (demand shortage) and supply shortage (surplus demand). The situation of excess supply indicates the existing unemployment, and therefore the employer's market. When the labor supply is lower than the demand for it, it is the employee's market.

It should be noted that the proper analysis of the situation on the labor market is not possible without taking into account the internal diversity of supply and demand for labor.

3. Segmentation of the labor market

When analyzing the labor market, it must be taken into account that it is a heterogeneous category. On the labor market, there are parts ("segments") that are "relatively homogeneous", and these parts are "relatively tightly closed for the inflow of labor resources with different characteristics" (Kryńska & Kwiatkowski, 2013, p. 205). The consequence of the existence of a part of the labor market is its segmentation. The following criteria can be used to identify different market segments (Tab. 2):

Table 2. Labor market (LM) segments

Criterion	Labor market segments
The profession of work resources	<ul style="list-style-type: none"> – LM under the supervision of a professional group – Traditional market – The market formally administered – Market of the contest – Free market
Membership in organization	<ul style="list-style-type: none"> – Internal LM – External LM
The ability to control the organization's resources	<ul style="list-style-type: none"> – Primary segment – Secondary segment
Spatial extent	<ul style="list-style-type: none"> – Global market – Transnational market – Domestic market – Regional market – Local market
Sector	<ul style="list-style-type: none"> – LM of private sector – LM of public sector
The size of enterprise	<ul style="list-style-type: none"> – LM of micro enterprises – LM of small enterprises – LM of medium-sized enterprises – LM of large enterprises
Forms of employment	<ul style="list-style-type: none"> – Traditional LM – Flexible LM
Legality of work and employment	<ul style="list-style-type: none"> – Registered LM – Unregistered LM (black and gray zone)

Source: (Kozek, 2013, p. 106; Kryńska & Kwiatkowski, 2013, pp. 205- 216; Unolt, 1999, p. 24; Skórska, 2016, pp. 14-15).

In the segmentation concept, attention is drawn to the fact that particular parts of the labor market operate in a varied way with differences such as the allocation of labor resources, the process of restoring labor market equilibrium, shaping the price of labor (Kryńska & Kwiatkowski, 2013, p. 206).

In the literature, the attributes of segmentation and the segments of the labor market are indicated (Kryńska & Kwiatkowski, 2013, p. 207). The limitation of access to some parts of the labor market can be considered as the most important. This limitation results from “more or less formalized criteria and conditions of access to some segments” (Kryńska & Kwiatkowski, 2013, p. 206). In other words, e.g. qualification requirements are important as they eliminate or hinder the inter-segment mobility of labor resources. Expenditure incurred in connection with entry into a particular segment is economic as well as non-economic. In the case of change/entry into a spatially separated labor market, economic expenditures relate to e.g. relocation, whereas if the change/entry refers to a profession in the labor market, costs of professional qualifications are incurred. Where these inputs are high, the labor market is defined as “closed” and, when low, as “open”. When they are changing and growing, the market is “closing”, otherwise “opening” (Kryńska & Kwiatkowski, 2013, p. 207).

The concept of dual labor market is of particular importance for these considerations, therefore more detailed characteristics of the segments are presented in Table 3.

Table 3. Specificity of segments on the dual labor market

	Primary segment (central, labor market nucleus)	Secondary segment (labor market periphery)
Employers	Large, profitable enterprises with significant degree of unionization of employees, capable of implementing new technologies	Small and medium enterprises, high competition, lower profitability, lack of unionization of employees
	They offer to employees: – Relatively high salaries, – Attractive working conditions; – Opportunities for career development; – Stability of employment	They offer to employees: – Relatively low salaries, – Modest working conditions, – Little opportunities for promotion, – Instability of employment.
Employees (work resources)	Highly skilled employees who incur expenditure on professional qualifications They hold positions with precisely defined qualification requirements	Low-skilled employees, often immigrants, young people, people with disabilities, and sometimes women They are subject to considerable fluctuation

Source: (Dekker, de Grip & Heijke, 2002, p. 107; Kryńska & Kwiatkowski, 2013, pp. 212- 216; Kozek, 2013, pp. 115-119; Unolt, 1999, p. 29; Zieliński, 2017, p. 61).

As presented, the concept of the dual labor market concerns both the demand and supply side of the labor market.

4. Labor supply in employee's market

4.1. The labor market in Poland as an employee's market

Less than 20 years ago, J. Unolt, writing about the shortage of labor supply, so *de facto* about the employee's market, pointed out that it was characteristic “for the labor market in the planned economy: on the one hand it means full employment, in practice excessive employment that is equivalent to the hidden unemployment, associated with not making the most of working time and qualifications, and on the other hand, the partial use of invested capital (machinery and equipment) because of a lack of hands to work” (Unolt, 1999, p. 38). In the situation described by Unolt, excessive employment, accompanied by a shortage of labor supply, resulted from the political situation. It is now believed that the creation or maintenance of a human reserve, which in the literature has been referred to as “stashing the work” (Marciniak, 2016, p. 18), is a sign of rational human resource management. This refers mostly to highly skilled employees and those whose adaptation to work is expensive and time-consuming. However, it is difficult to create reserves of personnel in Poland because there is a shortage of labor supply. Indeed the researchers often do not see this problem by writing, for example, that the universal trend “suitable for all branches of business and usually also for administration” is rising unemployment (Szaban, 2016, p. 42). This is in contrast with the statistical data showing that the unemployment rate in Poland has been steadily declining since 2013 and equals to 5.3% according to Eurostat data and 8.1% according to GUS data in March 2017². The discrepancies result from the different ways to calculate

² See: ec.europa.eu/eurostat, retrieved on May 10, 2017; stat.gov.pl, retrieved on May 10, 2017.

the indicator. The unemployment rate in Poland is the average of indicators for particular segments of the labor market distinguished e.g. based on the geographical criterion. The lowest rates in March 2017 were observed in the districts of Kępno (2.3%), Wolsztyn (2.5%), Warsaw (2.7%), Wrocław (2.8%), Cracow (3.5%). The highest unemployment rate was recorded in the district of Braniewo (24.3%) and Włocławek (21.3%)³. Hence there are regions of Poland characterized as the employer's market. It should be emphasized that not only the declining unemployment but also the growing number of job vacancies is reflected in the trend of labor market transformation. According to data provided by the Central Statistical Office, at the end of the fourth quarter of 2016, there were 78000 vacancies in entities employing at least one person. Compared to the fourth quarter of 2015, it increased by 1400, i.e. by 22%⁴.

The shortage of labor supply is also noticed by employers. According to the study conducted by the Work Service, 33% of employers find it hard to find employees. Most often, this is valid for large companies dealing with trade or services (*Barometr...*, 2017).

It can be noted that the shortage of labor supply in Poland results from demographic, political and economic factors. Labor supply is significantly determined by demographic factors. Nowadays, in many countries, including Poland, the effects of aging are already felt. It can be illustrated by the median age of the population in Poland which is growing (from 1921 to 2010 it has increased by 17 years), which indicates to the progressing aging of the population (Stokowski, 2015, p. 54). In particular, in the long run, these changes result in adverse labor market values (the demographic burden ratio, i.e. people in the pre- and post-productive age group to the number of people in productive age, amounted to 58.8 in 2014, comparing to 57.5 in 2004). What is particularly alarming, its increase does not result from the rise in the resources of people in the pre-working age⁵.

Social and political causes include such actions as the introduction of the 500+ program and lowering the retirement age. They result in the movement of people from active to passive groups. Employers claim that some of them have faced the termination of job contracts by women who became beneficent of 500+ program. It has also been noted that women are more likely to take time off from work after maternity leave. Simultaneously, as a result of this program, household income is increasing, resulting in an increase in demand for goods and services and, as a consequence, labor demand.

The retirement age in Poland will be reduced on 1.10.2017, however, according to analyses carried out by some employers, they expect more employees will leave the organizations due to the natural causes. They perceive this as a threat to the stable functioning of the organization. However, it is worth mentioning that achieving the retirement age does not imply an obligation to cease work, but the right to do so. An employer may, therefore, encourage people who reach the retirement age to continue working, for example, part-time.

The reasons for the shortage of supply in microeconomic terms, conditioned by macroeconomic and macro-social factors, are unavoidable in the short term. It can, therefore, be expected that, primarily due to demographic changes, the shortage of labor supply will be characteristic of the labor market in Poland in the coming years.

³ See: stat.gov.pl, retrieved on 10/05/2017.

⁴ See: www.stat.gov.pl, retrieved on 9/05/2017.

⁵ Own study based on indicators.rp.stat.gov.pl, retrieved on 19/12/2016.

4.2. Challenges for employers in the employee's market

The most characteristic feature of the employer's market is the shortage of labor supply. More and more employers point to difficulties not only in hiring new employees but even in finding job applicants. It turns out that candidates to work do not respond to the announced recruitment. These difficulties are experienced not only by employers operating in the peripheral (secondary) sector but also by large enterprises, including international corporations operating in Poland, which belong to the central (primary) sector.

However, this is not the only problem faced by employers on the employee's market. Unolt, in the cited publication, pointed to the negative effects of labor supply shortages, including low productivity, poor discipline, the excessive liquidity of employees (Unolt, 1999, p. 38). Nowadays employers experience staff fluctuations. This undoubtedly results from the recruitment of employees by competitive employers. The shorter is the notice period in the current organization, the greater is the likelihood of receiving a job offer without seeking it. An employee with shorter seniority is more flexible because of a relatively short notice period (Bukowska & Łukasiewicz, 2016, p. 247). Employers can prevent excessive fluctuations by introducing employee retention programs. These programs include not only salary increase but also attractive benefits, training offers, career paths, etc.

Employers are also exposed to the negative impact of the employee's market on the ethos of work that refers not only to employees but also to job applicants. They have some concerns about work discipline, employees' failure to observe working time norms (e.g. taking longer breaks). It was also indicated that candidates without prior notice resign from the job interviews and do not start work although a letter of intent was signed. It can be assumed that they received a more favorable offer in a meanwhile. Consequently, the so-called blacklist of employees has been created. Job candidates whose behavior during the recruitment process was found to be inappropriate, such as coming to an interview under the influence of alcohol, aggressive behavior, not appearing to a job interview without informing an employer about that (www.pulshr.pl, retrieved on 10/05/2017). The Ministry of the Family, Labor and Social Policy is against its creation taking it as a sign of discrimination. However, not all employers have been discouraged from using blacklists.

It has been previously indicated that not all segments of the labor market are characterized by excess demand for staff. However, according to the point 3, segmentation theory, the flow of resources between segments has some restrictions. It happens due to qualification requirements, formal regulations, financial factors, or lack of labor mobility. In mid-June 2017, the hiring of employees from Ukraine will be facilitated. Henceforth, Ukrainians who have biometric passports will not need visas to enter the European Union, for example, due to business reasons. Since this permission allows staying in the European Union for relatively short period of time (up to 90 days in a half year), this regulation will primarily help employers who seek seasonal workers. According to the Raport Work Service *Barometr rynku pracy 2017*, almost 40% of employers in Poland consider recruiting workers from Ukraine. The willingness to hire Ukrainians is declared by large manufacturing companies. On the other hand, the conducted interviews show that some employers owing to existing stereotypes are afraid of hiring foreigners and, in order to reduce their demand for jobs, they decide to reduce the supply of offered products and services. International companies take advantage of employing people of other nationality and coming from different cultures. The employee's market is also conducive to the professional activation of people who

are exposed to social exclusion due to, for example, disability. It is supported by the programs of diversity management that have been being implemented in organizations. For instance, appropriate working conditions are created to enable working to people with certain dysfunctions, such as vision, hearing, and autism. Taking advantage of new labor supply segments is therefore beneficial not only because of economic (increasing labor supply) but also for social reasons (counteracting social exclusion).

Under conditions of labor supply shortage, employers appreciate the importance of the positive image in the labor market. Consequently, they strive to improve the quality of HRM, the standards of the realization of the personnel function are developed. It has also been noted that the improvement of the economic situation is accompanied by the improvement of the employment conditions in the secondary sector to prevent them from being taken over by the competition (Zieliński, 2017, p. 64). Moreover, theories describing the functioning of the labor market assume salary increase under conditions of labor supply shortage. It has been indicated in the search on the labor market theory and the model of the lowest salary that makes the work profitable (Zieliński, 2017, pp. 53, 54). Increasing salaries may lead to increase of the economically active population by activating the previously inactive people that would reduce the shortage of labor supply.

The consequence is that labor costs are rising. Labor costs are the total expenditure incurred by the employer in relation to the employment of employees. In the labor market, not only the remuneration costs but also the costs of performing the personnel function, including the recruitment and retention of employees, are increasing. The recruitment cost increases due to the fact that more attention is required to select the suitable methods of recruitment of job candidates. On the employer's market the methods that require the activity of candidates, free of charge for the employer, are effective whereas the employee's market requires the significant activity of job candidates that results in the increase of the recruitment costs.

It is also significant that, in the situation of labor supply shortages, shown with the number of people creating labor resources (see point 2), employers compensate for the lack of labor supply in quantitative terms by the number of hours offered by the employees. The extra paid overtime is introduced (employees are not able to take off time in lieu). The actual working time of employees is thus increasing.

To reduce the demand for work, the employers increase the mechanization, automation, and robotization of the business. One can see the paradox that mechanization and automation have been perceived as a threat to workers for many decades. It was thought that, as a result, employees would no longer be needed, which would cause the rise in unemployment. Meanwhile, according to interviews, employers treat automation as an opportunity to overcome the shortages of labor supply. It is noteworthy that, due to automation, the client's ability to perform duties previously assigned to employees is also increasing. These customers are referred to as "partial employee" (Halbesleben & Buckley, 2004). Clients perform not only relatively simple tasks, such as self-service in the store, including making payments, but more and more complicated ones, such as paying/withdrawing money in the bank without the help of an employee, or self-check-in before the flight.

To sum up, it can be stated that the labor market requires employers to adapt to new conditions.

5. Conclusion

The employee's market means that the labor resources present in this market are not able to meet the demand for work reported by employers. Labor market statistics in Poland indicate that the shortage of labor does not apply to all segments, e.g. selected based on the geographical criterion. The labor market, however, is showing dynamics and it is forecasted that the shortage of labor supply will be more noticeable.

The lack of labor supply is characteristic of the employee's market, and simultaneously the main problem of employers. As a consequence, the increase in employee fluctuations, deterioration in work etiquette and increase in labor costs can be observed. Minimizing the indicated deficiency may occur in two ways, either due to the reduction of the demand for employees or increase the supply of labor. It turns out that the second method can also be attainable on a microeconomic scale. It may involve the use of labor supply available in segments not used by the organization so far, such as people with disabilities. It is also possible to address an attractive employment offer (also in terms of working time) to those who are able to work but who are not perceived as the work resources (e.g. pensioners).

Bibliography

1. *Barometr rynku pracy VII. Pierwszy kwartał 2017* (2017). Raport Work Service. Retrieved on 10/05/2017, from: www.workservice.com.
2. Bukowska, U., & Łukasiewicz, G. (2016). Retention of Employees and the Conditions of the Labour Market. [in:] M. Bezpartochnyi (Ed.), *Theoretical, Methodological and Practical Foundations of Human Resource Management*. Riga: ISMA University.
3. Cuyvers, L., De Lombaerde, P., & Rayp, G. (2011). The Labour Market Consequences of Globalisation and Regionalisation. *International Journal of Manpower*, 32(3), 252-256.
4. Dekker, R., de Grip, A., & Heijke, H. (2002). The Effects of Training and Overeducation on Career Mobility in a Segmented Labour Market. *International Journal of Manpower*, 23(2), 106-125.
5. Gajderowicz, T. (2016). *Korzyści z zatrudnienia: dekompozycja i wycena*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego.
6. Halbesleben, J., & Buckley, M. (2004). Managing Customers as Employees of the Firm. *Personnel Review*, 33(3), pp. 351-372.
7. Kozek, W. (2013). *Rynek pracy: perspektywa instytucjonalna*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego.
8. Kryńska, E., & Kwiatkowski, E. (2013). *Podstawy wiedzy o rynku pracy*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
9. Marciniak, J. (2016). *Optymalizacja zatrudnienia, wynagrodzeń i struktur organizacyjnych*. Warszawa: Wolters Kluwer.
10. Pilc, M. (2014). *Determinanty bezrobocia w Polsce w latach 1993-2012*. Warszawa: CeDeWu.
11. Skórska, A. (2016). *Rynek pracy. Wybrane zagadnienia*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
12. Ślawecki, B. (2011). *Zatrudnianie po znajomości. Kapitał społeczny na rynku pracy*. Warszawa: C.H. Beck.

13. Stokowski, F. (2015). *Demografia*. Warszawa: PWE.
14. Szaban, J. (2016). *Rynek pracy w Polsce i w Unii Europejskiej*. Warszawa: Difin.
15. Unolt, J. (1999). *Ekonomiczne problemy rynku pracy*. Katowice: Śląsk.
16. www.ec.europa.eu/eurostat. Retrived on 10/05/2017.
17. www.puls.hr.pl. Retrieved on 10/05/2017.
18. www.stat.gov.pl. Retrieved on 9-11/05/2017.
19. www.wskaznikizrp.stat.gov.pl. Retrieved on 19/12/2016.
20. Zieliński, M. (2017). *Rynek pracy w teoriach ekonomicznych*. Warszawa: CeDeWu.

Chapter 21

Enterprise System Acceptance by Older Workers: A Preliminary Literature Review¹

Ewa Soja, Piotr Soja

1. Introduction

Enterprise systems (ES) are complex application software packages that contain mechanisms supporting the management of the whole enterprise and integrate all areas of its functioning (Davenport, 1998). Enterprise systems evolved from Material Requirements Planning (MRP) and Manufacturing Resource Planning (MRP II) systems. Therefore, they started as the support for a variety of transaction-based back-office functions (at which time they were called Enterprise Resource Planning (ERP) systems). However, they further evolved to include support for front-office and even inter-organizational activities including supply chain management (SCM), customer resource management (CRM), and sales force automation (Volkoff et al., 2005). They started to offer solutions in an attempt to seamlessly link front-office (e.g. sales, marketing, customer services) and back-office (e.g. operations, logistics, financials, human resources) applications to enhance competitive advantages (Chen, 2001).

The adoption of an enterprise system is usually a lengthy process during which a company's resources are significantly overloaded. This is due to the high cost of the system and its implementation process and also due to the necessity of the involvement of various people in the project. Usually, ES adoption participants represent all levels of the company's organizational hierarchy and all areas of its business operation. Moreover, apart from the internal stakeholders, ES adoption involves people representing external organizations, such as the system and implementation services providers. In consequence of a full-scope ES adoption practically all employees within an organization become users of such a system. This is mainly due to the fact that usage of ES is usually mandatory in organizations.

Therefore, practically every employee faces a problem of using a very complex software application, despite his or her IT knowledge and experience. This issue is becoming increasingly vital in the light of an ageing society and ageing workforce within organizations. Due

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to population ageing, organizations are expected to struggle with a workforce both shrinking and ageing (e.g. Boersch-Suspan, 2008). As suggested by prior research, with age work capacity of an employee changes. The idea of work ability is central while dealing with age-related problems and, in today's economy, information and communication technology (ICT) use is an integral part of work ability (e.g. Soja & Soja, 2015a). However, as suggested by prior research on ICT, as age increases people might reveal more negative attitudes toward computers, experience greater technology anxiety, possess lower level of ICT skills and education, and, in general, be subjected to greater digital exclusion (e.g. Hill et al., 2008; Soja, 2016; Soja & Soja, 2015a, 2015b).

Taking into account the widespread use of ES within organizations and changing ICT-considerations with age, it appears important to conduct research into the role of employee age in ES acceptance and use. The current study begins with the discussion of the role of employee age in ES implementation. Next, it presents the technology acceptance model (TAM) and then it discusses the most important TAM-based research works on ES acceptance. The study next proceeds with the age-based discussion of ES acceptance-related considerations and ends with concluding remarks.

2. The role of employee age in ES implementation

Prior research suggests that employee age might have an important influence on the perception of various considerations of ES implementation projects. In particular, previous studies suggest that employees with an organization can be categorized into three age groups: the youngest, middle-aged, and older (e.g. Soja et al., 2016). Prior research illustrates that employee age groups tend to perceive various ES implementation considerations and these perceptions might be associated with their strong and weak points.

Older employees appear to have a people-oriented approach to the implementation project (Soja et al., 2016a). This might be considered as a strong point of older people and seems to be caused by their experience, awareness of one's own limitations and strong points, and comprehensive knowledge about the company. Older workers are also capable of perceiving some general problems occurring during ES implementations and have an ability to take a global look at the issues under consideration (Soja et al., 2015; Soja et al., 2016b). However, on the other hand, compared to younger people, older employees need more support in training on modern management techniques, project management, and deeper knowledge of the IT field (Soja et al., 2016a). They also tend to reveal negative attitudes towards changes, find it difficult to adjust to changes, and might be reluctant towards new technology (Soja et al., 2016a; Soja et al., 2015).

The youngest employees appear to perceive ES considerations in the context of their strong points associated with ICT-related skills and knowledge (Soja et al., 2016b). In their perceptions, the youngest workers are more ICT aware and tend to discover detailed, technical problems and barriers (Soja et al., 2015; Soja & Soja, 2016). The youngest employees, while perceiving potential solutions to the problems encountered, tend to focus on more detailed and adjusted to specific problems resolutions.

The middle-aged employees appear to possess both substantial job experience and up-to-date ICT- and BPR-related knowledge, which seems their strong point. In their perceptions of ES considerations, the middle-aged employees appear to emphasize the role of the implementation

process. They also perceive people-related issues from the perspective of implementation project needs (Soja et al., 2016b). However, with respect to project management-related considerations, the middle-age employees appear to attach similar importance as their younger and older work-mates (Soja & Soja, 2016).

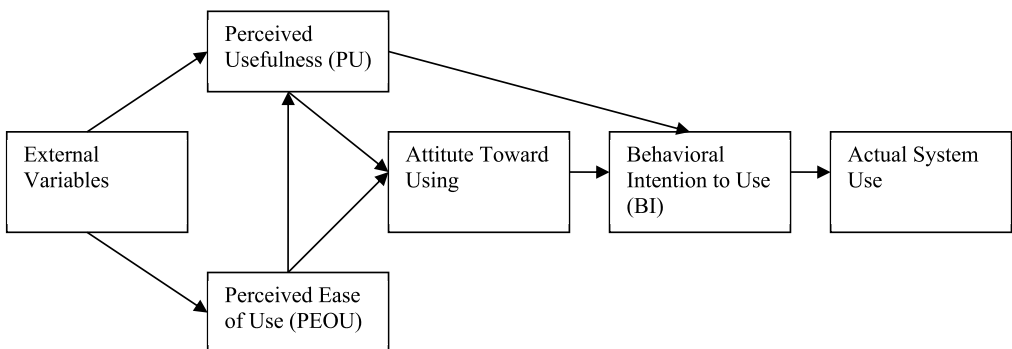
3. Technology Acceptance Model

Technology Acceptance Model (TAM) is one of the research approaches aiming at discovering factors having an influence on acceptance and use of IT by users. TAM is a widely accepted and used approach by researchers in the field of Information Systems. This might be due to its simplicity and a range of empirical studies that proved its appropriateness and made available research instruments (e.g. Agarwal & Prasad, 1999).

The main goal of TAM is modeling the level of acceptance of IT by users and explaining intention of use of IT. The main idea of TAM is an assumption that the most important determinants of IT use are perceived usefulness (PU) and perceived ease of use (PEOU). Perceived usefulness is defined as the prospective user's subjective probability that using a specific system will increase his or her job performance. Perceived ease of use (PEOU) refers to the degree to which the prospective user expects the target system to be free of effort (Davis et al., 1989, p. 985).

The third TAM variable having an influence on system use is user attitude. This variable is determined by the two above defined variables (i.e. PU, PEOU) and together with PU variable determines behavioral intention to use a system by a user. This variable, in turn, has a direct impact on actual system use by a user. The model TAM is depicted in Figure 1.

Figure 1. Technology Acceptance Model



Source: adapted from (Davis et al., 1989, p. 985).

Arrows among variables illustrate an influence of variables on other variables. The main conclusions resulting for the TAM model are (Davis et al., 1989, p. 997):

- actual system use by users can be rationally predicted on the basis of their intentions,
- perceived usefulness is a basic determinant of behavioral intention to use IT by users,
- perceived ease of use is the second important determinant of behavioral intention to use IT by users.

TAM advocates that the two basic determinants of IT use by users might be influenced by a number of external variables. Such variables might include the characteristics of the used software (e.g. system interface, reliability), as well as user characteristics. An explicit definition of external variables was caused first and foremost in order to encourage researchers to investigate an influence of various variables on user behavior (Davis et al., 1989).

4. Technology Acceptance Models in the context of ES implementation

Amoako-Gyampah and Salam (2004) performed their study in the USA among 571 respondents, including 409 end users. They evaluated the impact of one belief construct (i.e. shared beliefs in the benefits of a technology) and two widely recognized technology implementation success factors (i.e. training and communication) on the perceived usefulness and perceived ease of use during technology implementation. The analysis showed that both training and project communication influence the shared beliefs that users form about the benefits of the technology and that the shared beliefs influence the perceived usefulness and ease of use of the technology. The authors did not report respondents' age nor performed an age-based analysis of their findings.

Hwang (2005) focused on the idea of the informal control mechanisms in the context of ERP adoption. The informal controls, such as cultural control and self-control, can be viewed as a tacit perspective in knowledge management. The author used uncertainty avoidance and perceived enjoyment as informal controls in the ERP implementation. The study reviewed sociotechnical design, organizational control mechanism, knowledge management, and individual motivation to support this potential linkage in the model. The study used field data via the online survey of ERP systems user group and received 101 respondents. The results indicated that uncertainty avoidance cultural as control and intrinsic motivation as self-control are the important antecedents of ERP systems adoption. The author did not report respondents' age nor performed an age-based analysis of their findings.

Nah et al. (2004) examined factors leading to the lack of end-user acceptance of ERP systems. To test the formulated hypotheses the authors conducted a survey among 229 SAP users in a public institution in the USA. They examined end-users' attitudes toward system use and symbolic adoption, which refers to users' voluntary mental acceptance of a system. The authors created four cognitive constructs which were hypothesized as the antecedents of system use: perceived usefulness, perceived ease of use, perceived compatibility, and perceived fit. The findings indicate that perceived compatibility and perceived ease of use have both direct and indirect effects on symbolic adoption. Perceived fit and perceived usefulness, in turn, influence symbolic adoption by being fully mediated through attitude. The author did not report respondents' age nor performed an age-based analysis of their findings.

Youngberg et al. (2009) surveyed employees of a rural Utah college in the USA. They approached 66 ERP users among the university faculties, staff, and administrators. The authors gathered information on the users' perceptions related to technology acceptance factors for a newly installed ERP system. The analyzed issues include end user perceptions of ERP component usefulness, their intention to use the system, and self-reported usage of the system. The recommendations emerging from the findings indicate the need to create an overall picture of the ERP system flow, the importance of avoiding technical specialist terminology in communication with end users, and

securing adequate resources to ensure that end users have access to timely support. The authors report some data on respondents' age. In particular, the study participants' age ranged from 30 to 74 years, with an average age of 49 years. However, the authors do not perform an age-related discussion.

Sternad and Bobek (2013) aimed to extend the original TAM with groups of external factors which impact actual ERP system use. In so doing, they focused on ERP system use in companies' maturity phase. The authors proposed three groups of external factors which influence ERP usage: organizational-process characteristics, system and technological characteristics, and personal characteristics and information literacy. They also proposed a mediating variable "work compatibility", defined as fit of ERP to organizational work. In order to verify the proposed model, the authors conducted a survey among 293 ERP users from 44 organizations in Slovenia. The analysis proved significance of the most of the proposed relationships. Interestingly, some items turned out not significant in the proposed constructs: communication, training, computer self-efficacy, and computer experience. The authors did not report respondents' age nor performed an age-based analysis of their findings.

Kwahk and Lee (2008) focused on the role of readiness for change and its effect on the perceived technological value of an ERP system leading to its use. The proposed model was empirically tested using data collected from 283 ERP users from 72 organizations Korea. The findings indicate that readiness for change had an indirect effect on behavioral intention to use an ERP system. At the same time, readiness for change was found to be enhanced by two factors: organizational commitment and perceived personal competence. The authors reported respondents' age; nevertheless, older employees seem underrepresented in their sample. In particular, the reported age groups are: less than 29 years; 30-39 years, and 40 and more years. The last group included only 6% of the respondents. The authors did not perform an age-based analysis.

Bueno and Salmeron (2008) focused on decisive factors influencing the ERP users' acceptance and use. The proposed model based on TAM included selected critical success factors for ERP implementation: top management support, communication, cooperation, training, and technological complexity. The authors tested their model using the sample of 91 potential users from organizations where ERP implementation was in progress. The findings illustrate the significant influence of cooperation on perceived usefulness, significant impact of training on perceived ease of use, and significant influence of technological complexity on perceived ease of use. The authors also interestingly illustrated causal relationships among critical success factors: top management support influenced communication, and then communication influenced cooperation. Also, training had an influence on cooperation. The authors did not report respondents' age nor performed an age-based analysis of their findings.

Calisir et al. (2009) examined factors affecting users' behavioral intention (BIU) to use ERP systems and based their investigation on data gathered from 75 potential end-users of ERP systems in one manufacturing organization. The achieved results illustrate that subjective norms, perceived usefulness, and education level are determinants of BIU of the ERP system. Among the TAM-specific variables, the authors showed that perceived usefulness affected attitude toward use, and these both variables influenced perceived ease of use. Also, the authors proposed a variable "compatibility" which affected perceived usefulness. Among variables describing personal characteristics, education level had a significant effect on perceived ease of use and on behavioral intention. Nevertheless, the results did not reveal a significant relationship between attitude and behavioral intention. The authors reported respondents' age; nevertheless, older employees seem

absent in their sample. In particular, average respondent age was 33.8 years, with minimum age 25 and maximum age 44. The authors did not perform an age-based analysis.

Lee et al. (2010), based on TAM, proposed a model to examine the impact of organizational support on behavioral intention within the context of ERP implementation. In doing so, the authors investigated the effects of organizational support, both formal and informal, on TAM-specific factors. Formal organizational support is captured by training and education, and work environment. Informal organizational support is understood as communication. The analysis is based on a survey conducted among 209 representatives of Korean small and medium sized enterprises. The results revealed that the organizational support had an influence on perceived usefulness and perceived ease of use. The model defined a mediating variable inside TAM: interest in ERP. In general, the TAM related associations appeared significant. The authors reported respondents' age which ranged between 25 and 56 years. Nevertheless, the authors did not perform an age-based analysis.

Shivers-Blackwell and Charles (2006) focused on the role of readiness for change and behavioral intentions regarding the implementation of an ERP system. In doing so, they proposed and tested an adapted version of TAM. The authors gathered from 238 American students. The analysis revealed that gender and perceived ERP benefits are related to students' readiness for change. Readiness for change, in turn, appeared a significant predictor of students' attitude toward usage of the ERP system. The analysis also showed that computer self-efficacy is related to attitude toward usage and one's intent to use the ERP system. The authors did not report age-related data nor performed an age-based analysis. However, the fact that the research sample included students allows us to suspect that older people were underrepresented in the sample.

Venkatesh and Davis (2000) proposed a theoretical extension of TAM that attempts to explain TAM-related variables (perceived usefulness and usage intentions) in terms of social influence and cognitive instrumental processes. The extended model was tested using longitudinal data collected among 156 users from 4 organizations. The data were collected at three points in time at each organization: preimplementation, one month postimplementation, and three months postimplementation. The analysis showed that the extended model was strongly supported for all four organizations at all three points of measurement. All variables capturing social influence processes and cognitive instrumental processes significantly influenced user acceptance. These variables were, for social influence processes: subjective norm, voluntariness, and image, while for cognitive instrumental processes: job relevance, output quality, result demonstrability, and perceived ease of use. The authors did not report respondents' age nor performed an age-based analysis of their findings.

Sun et al. (2009) in their extension of TAM included the role of perceived work compatibility, perceived behavioral control, and subjective norm. The dependent variable examined by the authors included individual performance. They also proposed a mediating variable: IT usage. In order to validate empirically the model, the authors conducted a survey among 138 users of ERP systems in 62 firms in China. The performed analysis revealed that the relationships proposed by the authors were significant. The authors did not report respondents' age nor performed an age-based analysis of their findings.

Hsieh and Wang (2007) focused on the issue of system underutilization by investigating Extended Use, which refers to using more system features to support one's tasks. The authors conducted a field survey among 200 users in a large manufacturing firm in China. The used model employed Confirmation of expectation as an independent variable and Satisfaction as a moderating

variable in TAM. The results indicate that PEOU and PU both affected Extended Use. However, Satisfaction has no direct impact on Extended Use in the presence of PU and PEOU. The results showed that in contrast to most technology acceptance research, PEOU has a stronger behavioral impact than PU. The authors reported age of respondents but did not perform any age-based analysis. The respondents included people less than 50 years old, users aged 50+ comprised just 0.6% of the sample.

Shih and Huang (2009) attempted to explain behavioral intention and actual usage of ERP implementation based on TAM. The proposed model incorporates additional variables: top management support, computer self-efficacy (CSE) and computer anxiety. The results of an analysis demonstrate that top management support strongly and positively affects CSE, perceived usefulness and perceived ease of use. However, CSE had an insignificant affect on perceived usefulness, but was found to directly influence perceived ease of use. At the same time, perceived usefulness influenced behavioral intention, but does not significantly affect actual usage. Perceived ease of use was found to directly affect behavioral intention. Behavioral intention, in turn, positively and directly affects actual usage. The authors did not report respondents' age nor performed an age-based analysis of their findings.

5. Discussion

The analysis of the prior research works illustrates that there is a number of potential variables that might influence various aspects of ES acceptance by users. Nevertheless, previous ES acceptance-related studies do not perform age related analyzes and only few of them report age structure of their respondents. In a similar vein, a vast majority of previous research works have been conducted in highly developed countries, only few studies are based on data coming from less developed economies such as China, Turkey or Slovenia. The following paragraphs contain the short descriptions of the most important variables investigated by prior research together with an age-related evaluation of their importance.

The positive role of perceived compatibility/fit of the new ES seems unanimously illustrated by several studies. In particular, perceived compatibility significantly influences perceived usefulness (Calisir et al., 2009; Sternad & Bobek, 2013; Sun et al., 2009), intention to use (Sternad & Bobek, 2013; Sun et al., 2009), attitude towards ES use (Nah et al., 2004), decision about adoption (Nah et al., 2004), and individual performance (Sun et al., 2009). Perceived compatibility and fit of the new ES appears important for older workers due to their specific requirements associated with limited cognitive abilities and reduced work pace.

The next important issue, attitude toward ES, occurs both as dependent and independent or mediating variables. Prior studies illustrate its positive impact on behavioral intention to use ES (Amoako-Gyampah & Salam, 2014; Shivers-Blackwell & Charles, 2006) and decision about ES adoption (Nah et al., 2004). Nevertheless, Calisir et al. (2009) illustrate lack of significant influence of this variable on intention to use ES. Attitude towards ES appears very important in the context of ageing workforce as older employees tend to reveal negative attitudes towards change and technology. Also, mixed results revealed by prior studies illustrate the importance of further research towards this direction.

Other important issues related to some mixed findings among prior research are communication and trainings. Amoako-Gyampah and Salam (2004) illustrate their positive influence on shared

beliefs about ES benefits. Bueno and Salmeron (2008) demonstrate their positive impact on co-operation. Lee et al. (2010) show that communication positively influences ease of use, while training has a positive impact on ease of use and perceived usefulness. Nevertheless, in the model proposed by Sternad and Bobek (2013) communication and training are insignificant variables. In general, communication and training are fundamental mechanisms of change management and their role appears evident for older workers in order to help them to accept organizational change associated with ES adoption.

Computer self-efficacy is another important issue whose role is differently illustrated by prior research. In particular, computer self-efficacy significantly influences intention to use ES (Shivers-Blackwell & Charles, 2006), perceived ease of use (Shih & Huang, 2009), attitude toward ES use (Shivers-Blackwell & Charles, 2006), and was a significant control variables in Kwahk and Lee's (2008) model. Nevertheless, computer self-efficacy did not influence perceived usefulness in the study by Shih and Huang (2009) and was an insignificant variable in Sternad & Bobek's (2013) study. Overall, it appears that computer self-efficacy plays an important role in the light of self awareness of older workers about their limited ICT skills.

The positive influence of perceived benefits of ES on several variables was illustrated by two studies. In particular, perceived benefits positively influenced perceived usefulness and perceived ease of use in a study by Amoako-Gyampah and Salam (2014). Also, perceived benefits had a positive impact on all variables in Shivers-Blackwell and Charles' (2006) model except for a variable intention to use. The importance of perceived benefits of ES appears vital for older workers in the context of their usually limited ICT knowledge and skills.

Two prior studies illustrated positive influence of readiness for change on several variables. This variable positively influenced perceived usefulness (Kwahk & Lee, 2008), perceived ease of use (Kwahk & Lee, 2008; Shivers-Blackwell & Charles, 2006), and attitude toward ES (Shivers-Blackwell & Charles, 2006). The importance of readiness for change for older workers is illustrated by mentioned earlier their often negative attitudes towards change and difficulties in adapting themselves to change.

The last interesting issue, computer anxiety, was investigated by two prior studies (Shih & Huang, 2009; Sternad & Bobek, 2013). It is worth noticing that these studies did not reveal a significant influence of this variable on any other variables. This somewhat surprising fact suggests that the role of computer anxiety deserves further research, especially in the light of greater computer anxiety revealed by older employees as compared with their younger workmates.

6. Conclusion

The current study investigated the most important models of technology acceptance in the context of enterprise system (ES) implementation and evaluated their significance from the perspective of an ageing workforce. The findings illustrate that the most important issues related with ES acceptance perceived from the older workers viewpoint are: perceived compatibility/fit, attitude toward ES, communication and trainings, computer self-efficacy, perceived benefits of ES, readiness for change, and computer anxiety. The current study's results illustrate the need for future research into the role computer self-efficacy, computer anxiety, and communication and trainings. The role of these issues appears especially interesting in the light of an ageing workforce and mixed findings revealed by some prior studies.

Bibliography

1. Agarwal, R., & Prasad, J. (1999). Are Individual Differences Germane to the Acceptance of New Information Technologies? *Decision Sciences*, 30(2), 361-392.
2. Amoako-Gyampah, K., & Salam, A.F. (2004). An Extension of the Technology Acceptance Model in an ERP Implementation Environment. *Information & Management*, 41, 731-745.
3. Boersch-Supan, A. (2008). The Impact of Global Ageing on Labour, Product and Capital Markets. [in:] M. Cabrera & N. Malanowski (Eds.), *Information and Communication Technologies for Active Ageing*. Amsterdam: IOS Press.
4. Bueno, S., & Salmeron, J.L. (2008). TAM-based Success Modelling in ERP. *Interacting with Computers*, 20, 515-523.
5. Calisir, F., Gumussoy, C.A., & Bayram, A. (2009). Predicting the Behavioral Intention to Use Enterprise Resource Planning Systems: An Exploratory Extension of the Technology Acceptance Model. *Management Research News*, 32(7), 597-61.
6. Chen, I. (2001). Planning for ERP Systems: Analysis and Future Trend. *Business Process Management Journal*, 7(5), 374-386.
7. Davenport, T.H. (1998). Putting the Enterprise into the Enterprise System. *Harvard Business Review*, July – August, 121-131.
8. Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35(8), 982-1003.
9. Hill, R., Beynon-Davies, P., & Williams, M.D. (2008). Older People and Internet Engagement: Acknowledging Social Moderators of Internet Adoption, Access and Use. *Information Technology & People*, 21(3), 244-266.
10. Hsieh, J.J.P.A., & Wang, W. (2007). Explaining Employees' Extended Use of Complex Information Systems. *European Journal of Information Systems*, 16, 216-227.
11. Hwang, Y. (2005). Investigating Enterprise System Adoption: Uncertainty Avoidance, Intrinsic Motivation, and the Technology Acceptance Model. *European Journal of Information Systems*, 14, 150-161.
12. Kwahk, K.-Y., & Lee, J.-N. (2008). The Role of Readiness for Change in ERP Implementation: Theoretical Bases and Empirical Validation. *Information & Management*, 45, 474-481.
13. Lee, D., Lee, S.M., Olson, D.L., & Chung, S.H. (2010). The Effect of Organizational Support on ERP Implementation. *Industrial Management & Data Systems*, 110(2), 269-283.
14. Nah, F., Tan, X., & Teh, S.H. (2004). An Empirical Investigation on End-User's Acceptance of Enterprise Systems. *Information Resources Management Journal*, 17(3), 32-53.
15. Shih, Y.Y., & Huang, S.S. (2009). The Actual Usage of ERP Systems: An Extended Technology Acceptance Perspective. *Journal of Research and Practice in Information Technology*, 41(3), 263-276.
16. Shivers-Blackwell, S.L., & Charles, A.C. (2006). Ready, Set, Go: Examining Student Readiness to use ERP Technology. *Journal of Management Development*, 25(8), 795-805.
17. Soja, E. (2016). Supporting Healthcare of the Elderly through ICT: Socio-demographic Conditions and Digital Inclusion. [in:] A. Malina & R. Węgrzyn (Eds.), *Knowledge – Economy – Society. Challenges and Development of Modern Finance and Information Technology in Changing Market Conditions*. Cracow: Foundation of the Cracow University of Economics.
18. Soja, E., Paliwoda-Pękosz, G., & Soja, P. (2015). Perception of Difficulties during Enterprise System Adoption and Use: The Role of Employees Age. [in:] *Proceedings of the 10th*

- International Conference Accounting and Management Information Systems AMIS 2015*. Bucharest, Romania: The Bucharest University of Economic Studies.
19. Soja, E., & Soja, P. (2015a). Overcoming Difficulties in ICT Use by the Elderly. [in:] A. Malina, R. Oczkowska, & J. Kaczmarek (Eds.), *Knowledge – Economy – Society. In the Development and Challenges of Modern Economies, Finance and Information Technology*. Cracow: Foundation of the Cracow University of Economics.
 20. Soja, E., & Soja, P. (2015b). The Role of Information and Communication Technology in Ageing Societies. [in:] G. Radosavljević (Ed.), *Proceedings of the 3rd International Conference Contemporary Issues in Economics, Business, and Management (EBM 2014)*. Kragujevac, Serbia: Faculty of Economics, University of Kragujevac.
 21. Soja, E., & Soja, P. (2016a). Exploring the Role of Employee Age in Improving ICT Adoption Projects: Lessons Learned from Enterprise System Practitioners. [in:] *Proceedings of the 22nd Americas Conference on Information Systems AMCIS 2016, San Diego, USA, August 11-14*. Association for Information Systems.
 22. Soja, E., & Soja, P. (2016b). Towards Understanding the Role of Employee Age in ICT Adoption: Learning from Barrier Perceptions of Enterprise System Practitioners. [in:] *Proceedings of European, Mediterranean & Middle Eastern Conference on Information Systems EMCIS 2016, Krakow, Poland, 23-24 June*. Cracow University of Economics.
 23. Soja, E., Soja, P., & Paliwoda-Pękosz, G. (2016). Solving Problems during an Enterprise System Adoption: Does Employees' Age Matter? [in:] S. Wrycza (Ed.), *Information Systems: Development, Research, Applications, Education. Lecture Notes in Business Information Processing, Vol. 264*. Springer International Publishing.
 24. Soja, P., Themistocleous, M., Cunha, P.R., & Silva, M.M. (2015). Determinants of Enterprise System Adoption across the System Lifecycle: Exploring the Role of Economic Development. *Information Systems Management*, 32(4), 341-363.
 25. Sternad, S., & Bobek, S. (2013). TAM-based External Factors Related to ERP Solutions Acceptance in Organizations. *International Journal of Information Systems and Project Management*, 1(4), 25-38.
 26. Sun, Y., Bhattacharjee, A., & Ma, Q. (2009). Extending Technology Usage to Work Settings: The Role of Perceived Work Compatibility in ERP Implementation. *Information & Management*, 46, 351-356.
 27. Venkatesh, V., & Davis, F.D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186-204.
 28. Volkoff, O., Strong, D.M., & Elmes, M. (2005). Understanding Enterprise Systems-enabled Integration. *European Journal of Information Systems*, 14, 110-120.
 29. Youngberg, E., Olsen, D., & Hauser, K. (2009). Determinants of Professionally Autonomous end User Acceptance in an Enterprise Resource Planning System Environment. *International Journal of Information Management*, 29, 138-144.

Chapter 22

Selfcontrol in Workplaces

Anna Misiaszek

1. Introduction

One of the basic management functions is control. It has to provide appropriate employees actions which should lead to achieve corporate goals. Recently huge importance has control of human resources because it is one of the most relevant resources in each enterprise. Control of human resource is a huge challenge for managers. Frequently this function is skipped or neglected because of difficulty with fulfilling it. Excessive control discourages employees and reduces their effectiveness. One of the solutions for this problem, which is used by the employers, is fulfillment of control through motivational function. In this concept employers look for the ways that will improve selfcontrol of employees. Selfcontrol is a skill that affects efficiency and productivity. It help to focus on single activity and a goal which should be achieved. This article aims to investigate and systematize the factors that have positive and negative influence on selfcontrol in workplace.

2. Basic types of control in enterprises

Control is in addition to planning, organizing and leading one of the core business management functions. In accordance with this, the organization is moves in the right direction and develops better. It also helps to find the answer for the questions “where are we?” and “where are we heading?”. Control helps organization to adapt changes in environment, reduces cumulative errors, cope with the complexity of the organization and minimize costs.

The simplest division of control types in organizations is division into organization resources. It is control of material resources, human resources, information resources and finance resources. Control of material resources consists of inventory control, quality control, equipment control. Their main goal is to keep optimum level of inventory, equipment and buildings. Additionally, control optimizes the production process and appropriate quality. Control of human resources based on proper selection and positioning. Apart from it, the control contains training, development and remuneration of employees. The resource control consists of any forecasts and analysis that help with organization’s development. It also takes care of confidentiality and the use of each information

provided to the company. In financial controls, there should be taken care of confidentiality and optimal organization debt. It is not welcomed to have excess debt as well as its total deficit.

Other organization control division is division for the rung in the system. There are operational and finance levels, structural level and strategic level. At operational and finance levels, core processes, that leads to the final product version, are controlled. Structural level ensures that organizational structures are in line with its strategy and main company's goals. Strategic control refers to the impact of organization strategy on achieving key objectives. People who are responsible for control in organizations are called managers. In smaller enterprises, the control performer team consists of company owners and in bigger, where it is possible, control team consists of designated person that are responsible only for control tasks.

To perform control in organization, people who are responsible for control performers, have to set the standards for the process which will be reviewed. Then standards can be compared with control results, what can be measured and assessed. The comparison allows to create recommendations for further actions. Based on the assessment, management is able to starts change process that will improve team's functionality, as designed (Griffin, 2009, pp. 654-664).

3. The main obstacle in control of human resources

Among the company's control one of the biggest and the most important challenge for managers is control of human resources. People are called "organizations resource" due to their knowledge and experience that helps with organizations gain as well as competitive superiority. Knowledge and experience are specific resource because they are inside of each person. Realization of employees control is very important challenge for manager, its importance underlines the fact that human resources let the organization to maximum use of remaining resources which are in enterprise. How organization will use its capabilities depends primarily on the employees, whereas their effectiveness is shaped by many factors.

Thomas Davenport defines human capital as ratio of sum ability and behavior, effort and time. From this definition follow the statement that control of human resources should take care about selection of employees (it should be focused on ability and behavior), effort which is put into individual duties and time which is needed to make specific tasks. Selection is under control only whilst recruitment is open. The others factors should be controlled all the time. So when employee is controlled, special attention should be given for time control, quality of work and its result. Over the years, management practices have developed a number of ways to control an employee. From attendance lists to logs in the systems and arrival and exit time cards.

In spite of the development of the ways of exercising control, there is still no ideal way of controlling the worker (Łukasiewicz, 2009, pp. 12-23; Król & Ludwicyński, 2008, pp. 5060). This is due to the difficulty of finding the best way of control. In one hand it seems that managers should put pressure on the control but on the other hand it is not so easy because employees do not feel comfortable during open control process. Lack of freedom has an influence on lowering efficiency and in many cases also loyalty to the employer.

Equally bad solution is hidden control. This type of control usually gives employee a feeling of surveillance. So the question is, how should managers accomplish the function of control for human resources when in one hand it is basic function of management and on the other hand if it is performed in the wrong way, it creates huge danger for operation of the company?

4. Selfcontrol as form of control in enterprises

Due to difficulties with finding optimal solution for employee's control, employers very often limit this control to minimum. They try to replace realization of this function by putting more emphasis on implementation of remaining basic management functions. One of that kinds of trying is to motivate employees in order to increasing selfcontrol. Selfcontrol in narrow sense is the control of own reactions. In relation to organizations, selfcontrol is an observation and control own work and independent analysis own activities and their effects with compare them to requirements.

These days lots of employers resign from complex control form and they would rather build trust and collaboration in their enterprises. This trend is becoming more and more popular, when employees feel freedom of making their tasks and feel trust for them they, increasing their effectiveness. Very often selfcontrol become alternative way to complex form of control. That system generates huge costs for company and usually is not so effective as expected. Increasingly, employers see that freedom support activity, innovation and responsibility.

The question is, if only intensity of control have influence for increasing or reducing self-control of employees? Certainly not, there are a lot of factors which have influence on this. One of the prove for that statement is management theory which is called Managing by Values (MBV). Formerly values issue was classified as soft issue and it cannot be seriously management theory. Over time people have noticed that value systems for employees and enterprise should be consistent, because it leads to join fulfillment of employees needs with main goals of enterprise. A man who has complementary values and goals with company feels double motivation to work and increases selfcontrol.

The above examples are not all factors which have influence for selfcontrol. All kind factors which have this influence could be shared for two groups. First are internal factor, second are external. Internal factors are the factors on which employers do not have or have very small influence. They depend mainly from internal characteristic. When employers want to enhance selfcontrol for their employees, they focus on enhance it by external factors. Some people claim that selfcontrol is the strongest form for the control. In subsequent chapters of this article there will be systematized basic internal and external factors which have influence for increasing or reducing employees selfcontrol (Motyka & Pawlak, 2012, pp. 56-57; Hamrol, 2015, pp. 339-348).

5. Internal factors which have influence for selfcontrol in work place

Internal factors are factors on which employers do not have direct influence. They are adicted to employees and their motivation for work on themselves. Amongst the internal factors, special place have personality and character. Each person has individual character which is independent and innate. Everyone can fight with this features and try to work on it but this fight is very hard. In literature there are a lot of divisions of people because of their personality. One of the most popular is division for four types of temperament: spitfire, melancholy, sanguine and phlegmatic. More prone to selfcontrol are sanguine and melancholy (Gros, 2012, pp. 28-37; Michalak, 2012).

Personality is not the only internal factor, Dr Travid Bradberry, who is emotional intelligence researcher, lists 11 actions which could help people in fight for better selfcontrol. These factors are all addicted from willingness and commitment. They are the factors on which employers could have influence through external factors.

For this 11 factors belong (*11 cech...*, 2016):

1. Forgiveness

We cannot focus on mistakes which we made, to achieve success we have to be able to accept defeat. We cannot live the past, it only takes our strong.

2. Denying

We cannot afraid denying and say “yes” when we are not sure. A problem with denying intensifies stress and sometimes can lead to depression.

3. Lack of perfection

Our aim cannot be perfection because it does not exist. People who want to be perfect are always not happy from effect of their work, it have influence for their motivation in the future.

4. Focus on solving

Focusing on problems reduce selfcontrol by negative emotions. The best way is to focus on what we can do. Positive attitude has influence for better quality of our effects.

5. Avoid the question “what if?”

Worrying different options reduce selfcontrol, we lose the time and the energy which we can use for better productivity. It is worth to have emergency plan, but it is not worth worrying too much.

6. Positive attitude

It is easy to be optimist when everything is in accordance with the plan. It is more difficult when we are in a crisis. Excessive pessimism reduces selfcontrol and motivation to work. When we are in crisis it is worth to keep our mind on positive thinking, emotions and memories (for example we can think about what we have done so far).

7. Good food

Regular meals and sugar can affect the increase of selfcontrol. The brain consumes calories during the selfcontrol ant it needs them.

8. Rest

When we want to keep selfcontrol, we have to rest. Selfcontrol is related to our sleep. When we sleep, our brain rest and can sort out our minds. Fresh brain lets us to increase selfcontrol, our attention and memory. Additionally, when we do not have enough sleep, we are more stressed and it has influence for reducing selfcontrol and motivation.

9. Exercises

It could be only ten minutes for all day to wake up our brain in order to better control of human impulses.

10. Meditation

Meditation (it could take 5 minutes for focusing on calm breath) could increase selfcontrol and reduce tendency to detach from work.

11. Suppressing internal negative dialogue

We cannot be under the influence of negative thoughts, especially, when they are not facts. When we start negative thinking, it is worth to have a break from the work which we make in that moment.

6. External factors which have influence for selfcontrol in work place

External factors are factors which let employers to encourage employees to increase engagement into work for better selfcontrol. These factors occur during implementation motivational system in company. Motivational system could be shared for 3 divisions. First of them are wages motivators, second benefits in kind and the last are intangible assets.

To wages motivators belong for instance: remuneration, Shares in profits, bonuses and periodic commissions, allowances for salaries, bage supplements. Benefits in kind are primarily medical care, company cars, social benefits, flexible working time, loans and credits in preferential conditions, life insurance, pension funds and refund of medical expenses. To intangible assets belong personal and skills development, lifestyle, possibility to self-realization, promotions, mentoring, coaching, decentralization, recognition and prestige, integration and access to information, trust and freedom of duty (Woźniak-Sobczak, 2010, p. 235).

Appropriate motivation entourage employees to work on selfcontrol and to make it better and better. A lot of employers resign from improving direct control and money that they will spend on it, they spend on making better motivation systems for employees. If the team has to be well motivated, employers should start improving the system from making audit of motivation system. This audit could help to understand employers what can they do to increase employees selfcontrol.

Factors that should be checked (Daniecki, 2015, p. 150):

1. Is the company attractive for employees (do they want to stay in it)?
2. Does the company have competitive job offers (if new employees want to join it)?
3. Does the company provide with employment security?
4. Does company have clear rules for making basic wages (is it customized for labor market, understandable and transparent)?
5. Does company have clear rules for awarding mobile remuneration components (for example bonuses)?
6. Does company provide good atmosphere in work place?
7. Does company provide non-pay benefits, for example Christmas bonuses?
8. Does company provide self-development for employees?
9. Does company provide social benefits?
10. Does company use cultural motivators (for example multisport, discount movies)?

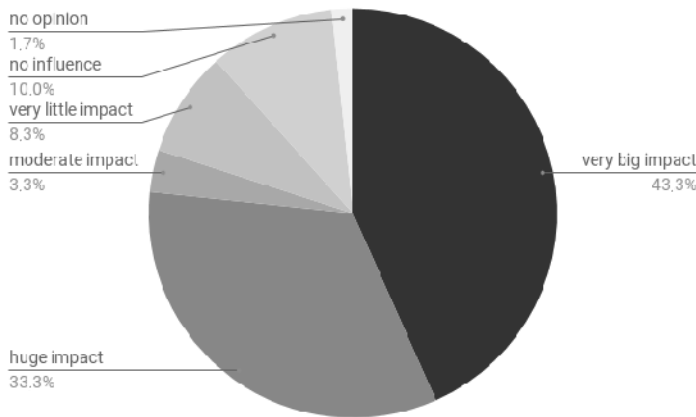
After verification this categories employers should create strategy that will allow to continuous improvement of motivation system in company.

7. Questionnaire about what have positive and negative influence for selfcontrol

Each of motivators have influence for level of employee's selfcontrol, but the question which is still open is question about what has the biggest influence for selfcontrol increase. To achieve this knowledge, there was made short questionnaire study. Respondents consisted of 60 people, who live in province Małopolskie in Poland and people who are active professional. Respondents had to answer to one question: "Which of below factors have influence (positive or negative) for your selfcontrol?".

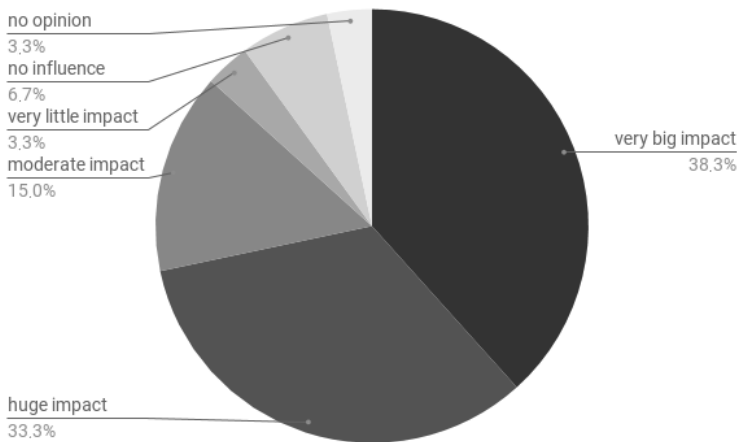
Motivators which have the biggest influence to selfcontrol in workplace are remuneration, bonuses and periodic commissions, allowances for salaries, personal and skills development, possibility to self-realization, promotions, trust, freedom of duty and flexible working time. So the most positive influence for selfcontrol employers could have through wages motivators and intangible assets. In the forefront of factors on which employers should be focused are promotions, trust and freedom of duty (Fig. 1, 2, 3).

Figure 1. The influence of promotions on employee selfcontrol in respondents opinion



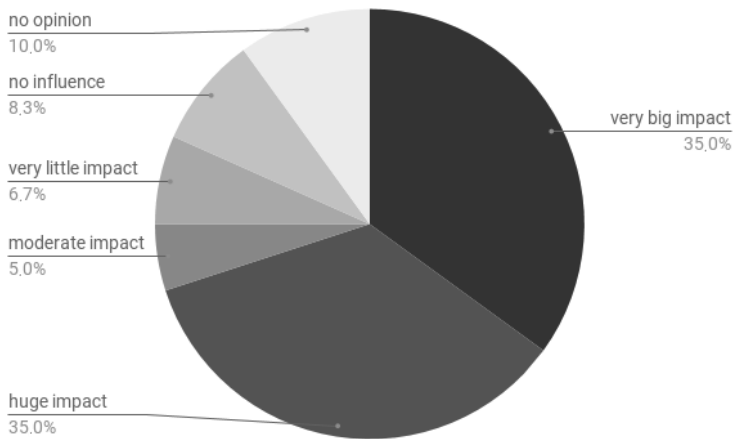
Source: own study.

Figure 2. The influence of trust on employee selfcontrol in respondents opinion



Source: own study.

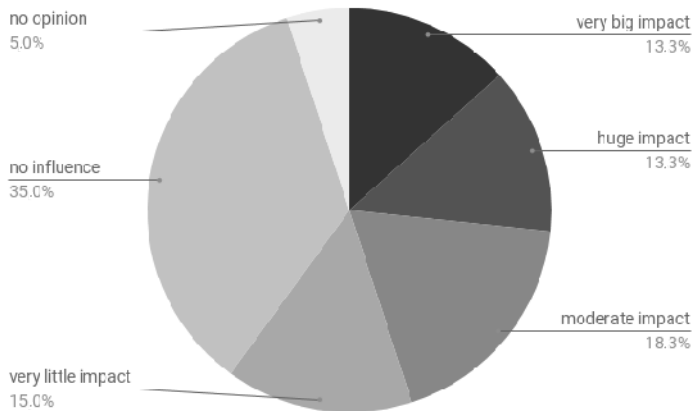
Figure 3. The influence of freedom of duty on employee selfcontrol in respondents opinion



Source: own study.

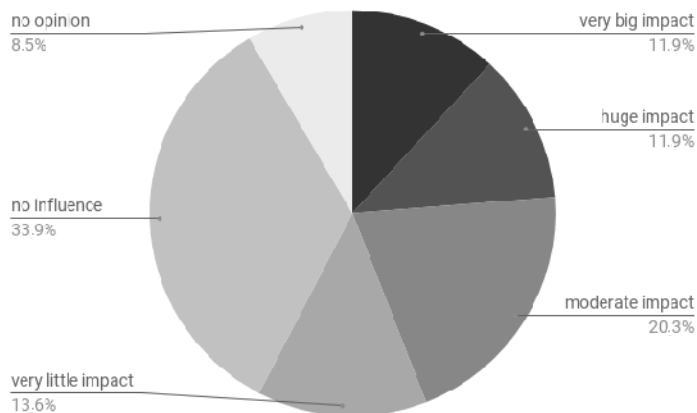
On the other hand, the three factors behind the mediocrity of which the employer practically does not affect the increase of selfcontrol of the employee are pension funds, loans and credits in preferential conditions, life insurance (Fig. 4, 5, 6).

Figure 4. The influence of pension funds on employee selfcontrol in respondents opinion



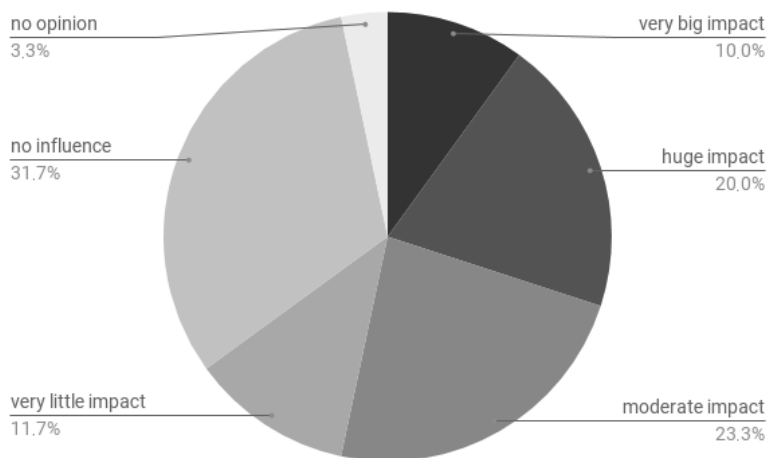
Source: own study.

Figure 5. The influence of loans and credits in preferential conditions on employee selfcontrol in respondents opinion



Source: own study.

Figure 6. The influence of life insurance on employee selfcontrol in respondents opinion



Source: own study.

8. Conclusion

Nowadays, due to the difficulty of performing the control function in enterprises, selfcontrol has a higher and higher importance. The above reflections show the essence of such selfcontrol. Employers, seeking the most effective way to control employees, often decide not to improve control systems and focus on develop motivate system which help them reinforce selfcontrol of employees. Supporting selfcontrol in the workplace has become a substitute for control. Significant impact on the level of selfcontrol in the workplace has primarily employees themselves.

In the first place, the level of selfcontrol of the employee depends on his character and personality. The next one is internal factors, which rely on the constant work of employees habits. The employer, in order to influence the selfcontrol of the employee, could only encourage him to work on selfcontrol. Such reinforcement is made primarily through the external factors. As indicated by the survey, employers should focus first on intangible motivators, in the opinion of employees they are most effective in supporting their selfcontrol (what is interesting they are not wages motivators). The most effective ways to reinforce employee selfcontrol are promotions. Besides, it is important for employees to have trust and freedom of duty. The factors that employers should not use to increase selfcontrol are pension funds, life insurance and loans and credits in preferential conditions.

The reflections discussed above are about selfcontrol in the workplace and can provide a set of guidelines for employers who want to reinforce and control employees selfcontrol in workplace. However, in order to make the conclusions of the above considerations more credible, the number of participants in the survey should be increased.

Bibliography

1. *11 cech osób, których siłą jest samokontrola*, (2016). Retrieved on 30/05/2017, from: <http://charaktery.eu/artukul/id-11-cech-osob-ktore-potrafia-sprawowac-kontrolę-nad-sobą-i-otoczeniem>.
2. Daniecki, W. (2015). *Talenty w firmie, czyli jak rekrutować i motywować najlepszych*. Warszawa: PWN.
3. Griffin, R.W. (2009). *Podstawy zarządzania organizacjami*. Warszawa: PWN.
4. Gros, U. (2012). *Zachowania organizacyjne w teorii i praktyce zarządzania*. Warszawa: PWN.
5. Hamrol, A. (2015). *Strategie i praktyki sprawnego działania*. Warszawa: PWN.
6. Król, H., & Ludwiczynski, A. (Eds.). (2008). *Zarządzanie zasobami ludzkimi*. Warszawa: PWN.
7. Łukasiewicz, G. (2009). *Kapitał ludzki organizacji*. Warszawa: PWN.
8. Michałak, P. (2012). *Typy temperamentu*. Retrieved on 28/05/2017, from: <http://www.strategie-rozwoju.pl/typy-temperamentu/>.
9. Motyka, M., & Pawlak, J. (Eds.). (2012). *Podmiotowość człowieka w organizacji*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
10. Woźniak-Sobczak, B. (2010). *Instrumenty zarządzania przedsiębiorstwem przez finanse*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.

Chapter 23

Examination of Commitment and Organizational Awareness of Medical Staff in Public Hospitals in Poland

Piotr Lenik

1. Introduction

In Poland, at the beginning of the economic transformation after 1989, in the environment of theoreticians and managers of health protection there was a discussion about the opportunities to perform positions of hospital managers by persons from outside the medical community, because such solutions were rare in the system of a centrally planned economy. Today, the belief that the most important criteria of employing hospital directors should be their professionalism and managerial competences seems to be quite common.

It should be noted that the medical Staff has a fundamental impact on the management of resources and expenses generated in various entities providing health services. This problem in Poland seems to be very important in the case of public hospitals, which unlike private entities, function in the full range of services, including cost-intensive and unprofitable services that are often underfunded by financial resources from health insurances. Hence, the majority of public hospitals in Poland have negative financial results, which are annually covered by their public founding authorities.

It is worth mentioning that the organizational situation, but above all financial situation of hospitals depends largely on economic results of individual hospital wards, which make up the financial result of the entire entity. Therefore, it seems that the commitment of the medical staff to work for the hospital can have a measurable impact on the organizational and economic situation of the entity (apart from an extremely important issue of reputation), but vice versa – the financial condition of entities has a considerable influence on human behavior. These relationships are extremely difficult to quantify. That is why, it is recommended to increase the level of commitment of medical personnel that can translate into the rationality in the range of operational and tactical management (Walshe & Smith, 2011).

The aim of this article is, on the basis of the available source literature and scientific knowledge, the presentation of own research results concerning the commitment of employees of public hospitals in Poland and the synthetic analysis of data obtained during these researches. The tests

were conducted in a large multidisciplinary public hospital on a representative group of employees with the use of the author's questionnaire tool (Lenik, 2017).

2. Literature review on selected methods for testing the level of employee commitment

The commitment is a concept of a very wide sense, and simultaneously almost ethereal. This characteristic reflects, among other things, passion, active participation in something through the conscientious and accurate completion of all responsibilities. Moreover, this is an "intellectual and emotional commitment to the organization or the amount of effort invested in the work" (Saks, 2006).

Management of the employee's commitment is an approach that based on the impact of the personnel on actions in favor of the organization, on its development policy and its effectiveness. The source literature describes various approaches in the area. It indicates, among others, a positive relationship between the commitment and productivity (Rich, Pepine & Crawford, 2010), economic results (Xanthopoulou et al., 2009), organizational trust and quality of the working environment (Lewicka, 2012; Lewicka & Książek, 2015), organizational effectiveness (Kruse, 2016; Meyer & Hersovitch, 2001), satisfaction originating from the performed work and fluctuation (Johnson, Groff & Taing, 2009) or subordination (at least partial) of own life goals to the interests of the entire organization (Seligman & Csikszentmihalyi, 2000). On the other hand, the low commitment is associated, among others, with the increased likelihood of unethical behaviors (Luchak & Gellattly, 2007), deterioration of profitability and productivity, and even accidents at work (Bates, 2004; Gallup Institute, 2016).

The main determinants of employee commitment in the functioning of the organization are (Armstrong, 2004): stabilization (desire to belong to the organization), identification with organizational objectives and values manifested in the professional passion (compatibility of the work's contents with interests, personal characteristics and aspirations), and finally effective operation for the organization – in physical, emotional and intellectual dimension. The commitment may also be characterized by the accumulation of three components (Schaufeli et al., 2002): vigor, dedication and absorption. In this perspective, the vigour includes energy and resistance to physical and mental fatigue, the dedication – weight, and even pride of work, while the absorption of work – concentration on the performed tasks and the sense of a rapid passage of time.

Furthermore, the division of a widely understood commitment into three main components is well known (Meyer & Allen, 1991): emotional attachment to the organization (affective commitment), consequences of the expected costs of changes in a current situation (continuance commitment) and commitments (normative commitment). The above-mentioned concept gave rise to multi-dimensional models of organizational commitment researches. Here, it is worth mention, among other things, the impact of commitment on the organization's results (Bates, 2004; Ditchburn, 2013; Harter, Schmidt & Keyes, 2003), on the level of rotation and satisfaction of employees (Harter, Schmidt & Hayes, 2002) or on the level of a general sense of job satisfaction (Q12 – so-called 12 Gallup's questions).

The selected methods for testing the employee commitment were presented in Table 1.

Table 1. Selected methods for testing the employee commitment

Author of the method / tool name	Elementary questions concerning the examination of employee commitment
The Gallup Organization / Q12	For the measurement of a general sense of satisfaction and the level of commitment, 12 selected questions are used.
Institute for Employment Studies / IES	12 elements are used for the measurement of commitment – with the possibility of limiting to the five basic elements: <ul style="list-style-type: none"> • positive attitude towards the organization, pride of work in the organization, • faith in products/ services of the organization, • perception that the organization allows a good work for the employee, • willingness to altruistic behaviors and being a good member of a team, • understanding of higher purposes and willingness to act beyond the required working standard.
Development Dimensions International / E3	20 questions related to three areas are used for measuring the commitment: <ul style="list-style-type: none"> • individual value, • defined direction of work, • support from the environment.
Towers Perrin / ISR	Three aspects are examined: <ul style="list-style-type: none"> • rational (cognitive), • emotional, • motivational.
J.P. Meyer and N.J. Allen / Organizational Commitment Scale	The questionnaire includes three components and each of them consists of six elements: <ul style="list-style-type: none"> • affective, • rational, • normative.
W.B. Schaufeli, A. Bakker et al. / Utrecht Work Engagement Scale	The questionnaire takes into account the frequency of feelings (six-stage scale) against 17 elements.

Source: own study on the basis of: www.employment-studies.co.uk, www.ddiworld.com; www.gallup.com, www.researchgate.net, www.towersperrin.com, www.towerswatson.com, www.wilmarschaufeli.nl (access: 2016, January 30).

3. Questionnaire survey concerning the commitment of staff in public hospitals in Poland – research results

In addition to the use of the presented methods that serve to test the commitment of employees, including the most commonly used research tools in the practice, it seems possible to perform the survey, which is based on sets of “eclectic” questions. The aim of these questions is to gain knowledge about the organizational awareness of employees, their self-esteem in terms of commitment, initiative and awareness, as well as a subjective evaluation of other members in the organization or cooperating individuals.

An exemplary research tool developed for hospitals, which takes into account the specificity of the sector and the organizational culture of such entities, includes a set of 22 questions.

Answers to these questions are given with the use of a five-point Likert scale (from 1 – “strongly disagree” to 5 – “strongly agree”). Researches with the use of the above-mentioned tool were carried out on a representative group of employees in a large public entity. The statistical analysis was conducted at a significance level of alpha 0.05. In order to assess the significance of differences between five tested professional groups, i.e.: doctors, remained higher medical personnel, nurses and midwives, other middle level medical personnel, administrative and service employees, the author took advantage of the Kruskal-Wallis test (a rank statistical test, which compares distributions of the variable in more than two groups/populations). For detailed comparison, the Mann-Whitney U test was used (a test connected with the ranking of results for the dependent variable (from the smallest to the largest) in the examined groups, which are then compared with each other).

The structure of the examined sample generally reflects the structure of people employed in public hospitals in Poland. In this type of entities, women (approx. 4/5 of the tested group), including nurses and midwives, play a dominant role. They usually constitute nearly half of the entire staff. According to the age structure, the dominant age range among respondents is the age between 35 and 55 years (about 3/4 of respondents). Among the employed persons, people with higher education (I and II degree) constitute the majority. They represent 2/5 of the estimated group.

Individual differences, including the most important, between particular professional groups are shown in Table 2.

Table 2. Statistics of differences between the examined professional groups

Question	Chi-square	df	p
1. I get involve in the realization of my duties.	10.340	4	0.054
2. Employees from my organizational unit are involved in the realization of their duties.	16.356	4	0.003
3. Employees from other organizational units in the company are involved in the realization of their duties.	4.892	4	0.299
4. I do not like, when someone is not involved in his or her duties.	4.611	4	0.330
5. I react when I see that someone is not involved in his or her duties.	7.461	4	0.113
6. My salary in comparison with other professional groups in the company is proportional to the range of duties.	37.154	4	0.000
7. My salary in comparison with other employees in my group in the company is proportional to the range of duties.	23.253	4	0.000
8. My direct supervisor adequately informs me about the expected range of my work.	5.482	4	0.241
9. My direct supervisor sufficiently informs me about the current objectives standing before my organizational unit.	5.295	4	0.258
10. My direct supervisor sufficiently informs me about the current targets standing before the entire company.	6.698	4	0.153
11. My direct supervisor adequately informs me about tasks and expectations determined by the board of directors/management in relation to my organizational unit.	7.404	4	0.116
12. I am interested in the future of my company.	3.374	4	0.497
13. I am aware of the financial limitations concerning the development of my company.	1.932	4	0.748

14. The financial situation of my company also depends on the efficiency of my organizational unit.	14.315	4	0.006
15. I have my own ideas different kinds of improvements in the company.	9.980	4	0.041
16. I present my direct supervisor my own ideas about different kinds of improvements in the company.	7.607	4	0.107
17. I would like to get more information about the current objectives standing before my organizational unit.	13.527	4	0.009
18. I would like to get more information about the results achieved by my organizational unit.	7.045	4	0.134
19. If I get the change, I will work more effectively.	8.804	4	0.066
20. I know expectations concerning my job.	3.496	4	0.479
21. The most important factor at work is the amount of remuneration.	22.234	4	0.000
22. Patients in my company are served at the appropriate level.	13.722	4	0.008

Source: own elaboration.

In the opinion of respondents, employees of the higher medical personnel are the least engaged in the performance of their duties (average – 4.1). The highest result in this question was obtained by the other medical personnel (average – 4.7). The result of nurses and midwives was at a comparable level (average – 4.6). In this question, doctors and administrative/service employees obtained an average result of 4.3.

It is pointed out that in this study all professional groups got the results, which should be considered as high. All examined professional groups have a high or even very high self-esteem. The evaluation of own commitment is often close to the perfect note. However, administrative and service employees evaluate their commitment slightly more critically. In turn, the assessment of the level of commitment among colleagues from the same organizational unit (although still high) is lower. Even lower estimation is assigned by respondents to employees from other organizational units.

Such results may be characteristic for organizations or professional groups, in which self-esteem is high, self-criticism virtually does not function, but the critical evaluation of other groups seems to be more common. Therefore, the analysis omitted the own assessment of the respondents' commitment. This commitment received an average of 4.8 with a standard deviation in the amount of 0.4. Indeed, statistically, doctors are the most satisfied with the salary in comparison to other professional groups in the context of proportionality to the range of responsibility (average – 3.1). On the other hand, other professional groups think that the salary is not adequate to the scope of their responsibilities and duties (averages from 1.6 to 1.9). Furthermore, doctors are the most satisfied professional groups in terms of the salary (average – 3.5), taking into account the average in other professional groups at the level of 2.1-2.4. Statistically, employees of the higher medical personnel usually identify the fact that the financial situation of the company also depends on the effectiveness of the organizational unit, in which they work (average – 4.6).

Assessments in a group of doctors are at a slightly lower level (average – 4.1). The average or the worst result in this matter was presented by administrative and service employees (average – 3.5); other professional groups within the limits of 3.8-4.0. Doctors are a professional group that evaluates at the highest level the need to learn current objectives facing their organization (average – 4.5). After doctors, there is the following order of groups: other higher medical personnel

(average – 4.2), other intermediate medical personnel (average – 4.2), as well as nurses and midwives (average – 4.1). The above-mentioned need is the least popular among administrative and service employees (average – 3.9). In turn, for administrative and service employees (average – 4.2) and intermediate medical personnel (average – 4.2), the amount of remuneration is the most important factor at work. For nurses and midwives (average – 3.7) and doctors (average – 3.4), this factor is also more important than in the case of persons included in higher medical personnel (average – 3.2). Employees of the medical staff other than doctors declare the provision of services for patients at the highest level among all examined groups (average – 4.6). Worse results were obtained by nurses, midwives and other intermediate medical personnel (average – 4.2), then doctors (average 4.1) and administrative and service employees (average – 3.7). In case of other questions, researches did not show any particular differences between individual groups of employees. This means that these groups relate to other issues covered in the questions in a comparable way. It was confirmed by the averages >3.5 .

According to the survey, the lack of commitment of other employees is the most irritating for doctors. The least critical about the lack of someone else's lack of commitment seem to be administrative and service employees. Furthermore, doctors are employees, who comparatively give the highest note to the relation of the amount of their salary with responsibility at work and this relationship to other employees. In this respect, they definitely stand out against the background of other groups of employees (the difference usually exceeds an average of one pint). The lowest assessment concerning the righteousness of salary in relation to the scope of responsibilities and remuneration of other people was presented by employees of the intermediate medical personnel. On the basis of researches, a group of administrative and service employees makes an impression of the most passive group, which does not believe in the success and their own role in the creation of a company's success. It presents itself as a group, which is not conscious of targets in the organization. Moreover, this is the least informed group. The described group shows poor results in the identification of its position and work with the possibilities of improving efficiency of the hospital's functioning, and simultaneously, it evaluates the range of patient care at the lowest level. On this basis, it can be concluded that in the opinion of "support" employees, the responsibility for the current state of affairs and possible improvement of the hospital's efficiency should be attributed only to doctors (most likely) and other medical employees. This group of employees, as well as representatives of the intermediate medical personnel also clearly indicate that the remuneration in their work is a priority. It seems that this factor is possibly the least important for the higher medical personnel. Higher indications were obtained in the following order: doctors, nurses and midwives, intermediate medical personnel and administrative and service employees. The highest organizational awareness, according to the researches, is demonstrated by employees of medical personnel, who are not doctors. In turn, the lowest organizational awareness is observed among administrative and service employees. In the case of ingenuity related to the organizational improvements, this situation is identical.

Furthermore, the researches show some nuances and interesting patterns. On the basis of data obtained from respondents, it is possible to formulate a thesis that demonstration of concern for the company's future increases with age, and a verbally communicated need of knowledge about the company's goals generally increases with education. However, the increase in education is connected with the decrease of demonstrating the salary as a key motivator at work. Men are more likely to admit that the relation between the amount of their salary and the range of duties and responsibilities in relation to other employees is fair.

4. Conclusion

It is recommended to carry out the above-presented questionnaire researches for the self-esteem of the level of commitment and the state of awareness among managers and other employees, among others, in the initial phase of the introduction of organizational changes, including within the framework of a deliberate process of economic and organizational restructuring. Such tests should be repeated from time to time and deeply analyze in terms of the obtained results. However, the author points out that these researches are burdened with many imperfections. The fact that a certain employee perceives himself as a committed person does not mean that he is such a person. The opinion of such an employee about his co-workers or managers also should not be regarded as an objective and reliable index. According to the attribution theory of F. Haider or the self-perception theory of D. Bem, each person has a subjective assessment of the environment, as well as himself. Everyone assesses on the basis of own perspective, usually with the conviction about his objectivity. He often overestimates the evaluation of himself, while underestimating other people.

It happens that employees are confident of a high level of their competences, their infallibility and values. Sometimes, finally, their self-esteem is almost inversely proportional to the actual situation. It is hard to find an employee in the organization, who would think that he is ineffective and unnecessary and incompetent, regardless of his actual and objective usefulness. This causes that all survey tests concerning the assessment of a certain employee or other employees must be subject to the risk related to the lack of objectivity. In other words, the assessment of own commitment, commitment of other employees, as well as individual environmental factors by respondents must be treated as a subjective judgment. Therefore, they should always be treated with caution.

Bibliography

1. Armstrong, M. (2004). *Zarządzanie zasobami ludzkimi*. Kraków: Oficyna Ekonomiczna.
2. Bates, S. (2004). Getting Engaged. *HR Magazine*, 2, 44-51.
3. Ditchburn, G. (2013). *The Business Benefits of Employee Engagement*. Retrieved on 26/03/2013, from: [http://www.dop.bps.org.uk/organisations/insights-research/the-business-benefits-of-employee-engagement\\$.cfm](http://www.dop.bps.org.uk/organisations/insights-research/the-business-benefits-of-employee-engagement$.cfm).
4. Harter, J.K., Schmidt, F.L., & Hayes, T.L. (2002). Business-unit-level Relationship between Employee Satisfaction, Employee Engagement, and Business Outcomes. A Meta-analysis. *Journal of Applied Psychology*, 87(2), 268-279.
5. Harter, J.K., Schmidt, F.L., & Keyes, C.L.M. (2003). Well-being in the Workplace and Its Relationships to Business Outcomes. [in:] C.L.M. Keyes & J. Haidt (Eds.), *Flourishing. The Positive Person and the Good Life*. Washington, DC: American Psychological Association.
6. Johnson, R.E, Groff, K.W., & Taing, M.U. (2009). Nature of the Interactions among Organizational Commitments. Complementary, Competitive or Synergistic? *British Journal of Management*, 20(4), 431-447.
7. Kruse, K. (2012). *Employee Engagement Research* (Master List of 32 Findings). Retrieved on 18/09/2012, from: <http://www.kevinkruse.com/employee-engagement-research-master-list-of-29-studies>.

8. Lenik, P. (2017). *Zarządzanie ewolucyjnymi zmianami w szpitalach publicznych*. Warszawa: Wolters Kluwer.
9. Lewicka, D. (2012). Relacje między zaufaniem horyzontalnym, współpracą i kulturą proinnowacyjną. *Organizacja i Kierowanie*, 3(152), 11-25.
10. Lewicka, D., & Książek, D. (2015). Rola zaufania jako czynnika wzmacniającego zaangażowanie afektywne pracowników w polskich organizacjach. *Marketing i Rynek*, 22(5), 1174-1185.
11. Luchak, A.A., & Gellattly, I.R. (2007). A Comparison of Linear and Nonlinear Relations between Organizational Commitment and Work Outcomes. *The Journal of Applied Psychology*, 3, 786-793.
12. Meyer, J.P., & Allen, N.J. (1991). A Three Component Conceptualization of Organizational Commitment. *Human Resource Management Review*, 1, 61-89.
13. Meyer, J.P., & Hersovitch, L. (2001). Commitment in the Workplace. Towards a General Model. *Human Resource Management Review*, 11, 299-326.
14. Nink, M. (2009). *Employee Disengagement Plagues Germany*. Retrieved on 01/01/2017, from: <http://www.gallup.com/businessjournal/117376/employee-disengagement-plagues-germany.aspx>.
15. Rich, B.L, Pepine, J.A., & Crawford, E.R. (2010). Job Engagement. Antecedents and Effect on Job Performance. *Academy of Management Journal*, 53(3), 617-635.
16. Saks, A.M. (2006). Antecedents and Consequences of Employee Engagement. *Journal of Managerial Psychology*, 7, 600-619.
17. Schaufeli, W.B., Salanova, M., Gonzalez-Rom, V., & Bakker, A.B. (2002). The Measurement of Engagement and Burnout. A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 3, 71-92.
18. Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive Psychology. An Introduction. *American Psychologist*, 55(1), 5-14.
19. Walshe, K., & Smith, J. (2011). *Healthcare Management*. Second Ed., New York, NY: McGraw Hill/Open University Press.
20. Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2009). Work Engagement and Financial Returns. A Diary Study on the Role of Job and Personal Resources. *Journal of Occupational and Organizational Psychology*, 82, 183-200.
21. *The State of the Global Workplace. Employee Engagement Insights for Business Leaders Worldwide*. Retrieved on 01/01/2016, from: <http://www.gallup.com/strategicconsulting/164735/state-global-workplace.aspx>.
22. <http://www.employment-studies.co.uk>.
23. <http://www.ddiworld.com>.
24. <http://www.gallup.com>.
25. <http://www.researchgate.net>.
26. <http://www.towersperrin.com>.
27. <http://www.towerswatson.com>.
28. <http://www.wilmarschaufeli.nl>.

Chapter 24

The Value Proposition: An Existing Parallelism Between the People Management Within the Organizations And the Brand Management

Camillo Manlio Giovanni Manera

1. Introduction

The concept of leadership has been described along the years in many different ways, within many different disciplines, by the scientific community. It has been associated to physiological skills of those individual, able to communicate successfully to others. The fact that the organization have always pursuit the goal to establish leadership to the belonging group of people, is due to the fact that accepting the leadership means even accepting the rules. Once the leadership has been accepted by the community, the organization, perceived and accepted as institution, can share the established objectives with the community itself. But the scientific community did not stop its analysis to the effective communication skills; it has been proved by several researches that the acceptance of the leadership corresponds to the sharing of commune values. However, an organization in order to share its value proposal with the belonging group of people, might be able to: 1) identify its values, at the bottom of its social actions; 2) behaving in the manner that these values identified, are reflected by the actions of the organization itself; 3) the organization must be able to communicate, transmits and clarify these values to the group of belonging people, in order to share them. If this process is successful, the belonging group of people become a community that share the values proposed by the institution, and, therefore, the objectives. In the brand management, the value proposal is a key factor in order to differentiate a certain product or service from others. This happens because in the market there might be many similar products that match the customers' needs thanks to their functional requirements. But, when a brand is able to create a commune field in which the customers understand and accept the value proposition, then the brand has the chance to be differentiated by the others.

The leadership in the organizations as the leadership in the market of consumers cannot leave aside the fact that there must be the three steps of values proposition and acceptance by the community explained before, in order to success with the established objectives. Together with the studies related the leadership, the scientific community achieved important knowledge related the origin

of the emotions into the individuals; This happened because as the leadership can happen to make pursuit a commune goal, some theories explain how an emotional communication can drive or deviate positively the individual's decision making. Therefore the technique of the emotional communication opens another important dimension, in which the word leadership still assumes a different meaning.

2. The leadership for the scientific community, understanding the commune objectives

Since the 1980s the scientific community started to experiment methodologies related the perception of leadership. Sometimes the scholars were using these methodologies with actors trained in high communication performances. The outcome of these experiments demonstrated the strong correlation between factors as face expressivity, adequate voice tone, proper hand gestures – but more in general – good communication approach and emotional communication, with the leadership perception (as charisma, visionary leadership, etc.) (Groves, 2006).

Gary Yukl (2006) defines the word leadership as: “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives”. This definition highlights how the term leadership might be considered as a process, rather than a behavior, or an individual attitude. Furthermore, starting from the assumption, when we refer to the word leadership, it should not be left aside the fact that, the acceptance of a leadership is directly connected with shared objectives between the leaders and the community. Generally, people refer to the word leadership as an important asset, in the more general field of “good management” (Carmichael et al., 2011).

Therefore, it is possible to assume that what it is driven with no leadership, cannot be considered as “good management”; consequently, the leadership corresponds to an important asset for managers, once called to accomplish strategic – people driving – decisions.

A consequence of these assumption is that, the studies that focus their analysis on strategic management for companies, are referring at the leadership as a main factor in order to achieve the an organizational success (Hernez-Broome et al., 2004). If Burns in the 1978, was affirming that most of the publications related the leadership topic, were focusing on the psychoanalysis (Burns, 1978), along the years, scientists tried to observe the leadership factor a variable, both dependent and independent (Amit et al., 2009). But the scientific vision related the concept of leadership changed, progressing with the direct testimonies of the managers (Bennis, 1989). So if traditionally, the leadership has been always considered as an individual skill, something acquired a priori, innate, then, the people from the scientific community and the managers coming from their own experiences, started to explain mythologies, through which it is possible to empower the leadership on groups of people (Day, 2001).

3. The steps to increase the leadership in the good management

Paul Kirkbride (2006) describes the steps of leadership, determining precise and specific steps, from “non-leadership” to “acceptance of leadership”, in other word, from no shared objectives, to the good management in which the objectives are shared and the way of obtaining

a good result is pursuit together. He defines the steps as the following: 1) Laissez Faire, that constitutes the moment in which the individual of the group, belonging to the same organization, do not recognize the organization as institution; the manager does not have leadership at all. Therefore, the group of people or the individual that are involved, will pursuit personal objectives, rather than a share one. It could mean that the personal objectives, not only are not matching with the organization's ones, but they can be crashing too. On the Laissez Faire there is not leader as explained. Then the author describes the other steps: 2) Management by exception, 3) Contingent reward, 4) Individualized consideration, 5) Intellectual stimulation, 6) Inspirational motivation, 7) Idealized influence. The name of this journey is called in literature: "full range leadership model", which consists in describing the full field in which the leader should act well, in order to obtain the maximum level of leadership (Avolio, 1999; Bass, 1999).

At the last step, "Idealized influence", the leader complete his transaction, as the author explains: "such leaders are often seen as being high on morality, trust, integrity, honesty and purpose" (Kirkbride, 2006). At this point of the analysis, it is clear how the believing of the individuals that are involved in the shared goals set by the organization, might correspond to the moral values proposed by the leaders. These moral values must be perceived by the individuals themselves: in other words, if between the individuals and the leaders there is a recognized commune field, in which the subjects involved share moral values, therefore, will be possible for the leaders to "sell" an idea (or make an objective accepted). This idea will correspond to a commune objective to be pursuit indeed. In this scenario will be possible to achieve the 7th step, the "Idealized influence".

4. The individual needs: how the theories related the Limbic System of the neurosciences can help leaders in reducing the leadership gap

Focusing the analysis on the individuals need, the word leadership might constitute a process in which the managers make the organization's need as a share objective to be satisfied together with the community. Indeed it is possible to affirm that one of the key goals of the "aspiring leaders" is to understand, highlight and pursuit the solutions in order to fulfil the needs of the organization, through the good management (Leslie, 2015). Many recent studies reported their findings related to the people's needs, both rational and irrational; the neurosciences tried to explain the origin of the emotions, from a chemical and scientific point of view. It has been discovered that the emotions are generated by sort of external input and they are elaborated by the emotional intelligence of the individual, which consequently generates an output (Kidwell et al., 2011). The neurosciences explained that the feelings have their origin in the Limbic System, a part of the individual's brain in which is placed the Hypothalamus. However, the theories related to the Limbic System are still incomplete, and there is not a precise and scientific definition of what Limbic System is: in other words, it is not possible to define yet where the Limbic System starts and where it ends (LeDoux, 2003). The theories explained by the neurosciences helped managers to address the origin of the feelings as such as fear or the stress; the part of the individual's brain most involved has been discovered to be the Amygdala (LeDoux, 2003). All the findings among the Limbic System related to the theories on the emotional feelings,

helped the marketers to understand deeper the individual's behavior once called to accomplish choices. However these theories have been applied more to disciplines such as marketing, brand management and value selling, it becomes really important to understand how the individual might chemically react, after receiving rules or/and objectives to be achieved. The individual's approach to the established objectives might be positive and proactive if these rules are understood, accepted and shared. For instance, in case an individual shared the same objectives with an organization or institution, he/she would feel bad in case he/she would not accomplish these objectives. To clarify this point: understanding the fears, the changes of the emotional status into the individual, can constitute an important asset for the leaders, once called to develop their leadership, on a certain group of people. One of the key goals of the theories related to the emotional feelings of the individual, is to provide to the marketers some scientific tools, in order to help them in strengthening and maintaining the relation with the customers (Gronroos, 1994) after the purchases. The customers are considered as such as companies' assets indeed (Yaghoubi et al., 2011). These theories can be applied in the field of good management too: in particular, they can constitute an asset in order to strengthen the leadership between the leaders and the group or person managed. Consequently, it could constitute an asset for the leaders, being able to leverage to the techniques that are able to modify in a certain percentage the individual emotional status. The goal of these techniques would be to "create a commune shared space", in which the objectives become a point to be reached together with the community. This process would empower the leadership of the organization, reducing the leadership gaps between the people and the organization itself.

5. The companies' leadership and the brand management's communication

It is a current topic the values proposition related the brand management in the marketing scientific literature. Some of the main goals of this literature constitutes in acquiring leadership in the market, and – consequently – increasing the brand's market share. But the communication among the brand's values cannot leave aside the companies' values, rooted in their missions and visions. Through several scientific analysis, the companies' association have been divided in two specific kinds: "corporate ability" (Brown, 1997) and "corporate social responsibility" (San et al., 2006). And when scientists refer to the concept of corporate social responsibility, they mean the field in which the company expresses its own values, within the society. Therefore, it has been proved that those companies that spend their energies, and invest part of their strategy on actions of social relevance, get benefit from their stakeholders and their customers (San et al., 2006). But how can a company invest time, money and people in actions of social relevance within the society, but, in the main time, not acting ethically within the company? This would result in a big contradiction on its own value proposition in the market. It has been proved scientifically and through quantitative methodologies that when charismatic leaders of the companies, especially Chief Executives Officers (CEOs), are recognized by the community as interpreters of common values, the companies themselves get economic benefits (Waldman et al., 2001). As explained in the introduction, the companies cannot satisfy the 1st step of "leadership journey": identify its values, at the bottom of its social actions, but not the second: behaving in the manner that these values identified, are reflected by the actions

of the organization itself. Therefore, a contradiction between what the company propose and how the company behave with its own community might constitute a strong imagine deficit, which could result in a possible loss of business. To clarify a possible disambiguation of these two steps it might be useful an example: if company A communicates to the market its way of respecting diversity, and include in its mission a fight against discriminations, therefore it might consequently acting on this purpose internally at the company. If – for instance – the women of this organization feel differently treated by the men, however belonging to the same community, and if this perception would have a negative connotation (Holck, 2016), therefore the company would no match the 1st step and 2nd, as explained previously. The result of this discordance would result in a strong damage of the imagine of the organization in front the all the subjects involved: the belonging community (if it is a company it is possible to include the stakeholders and the customers too), and – more generally – all the people involved in the acceptance of the organization's leadership.

6. The emotional perception of the individual

It is mandatory to understand how shared moral values create the space for a good management strategy; the result – at the end – consists in an effective leadership. Starting from this assumption, it must be considered that every individual is made of personal needs, rational and irrational, that will drive his/her choice (Slovic et al., 2004). Therefore it is easy to understand how complicate might be, for a big organization, to match the organization's needs with the individual's ones. Rather than complicate, it is possible to affirm that there is no chance that all the organization's needs match all the individual's ones. Furthermore, through this analysis, it is possible to define that there is a huge statistical chance that some of the individual's needs will be contrasting the organization's ones. But observing the management from the prospective of the needs will not help the analysis, to understand a good methodology of leadership. This concept is more clear if applied to the discipline of marketing: in business – to – consumer (b2c), how can a certain product match a very huge demand, through a singular offer? The answer cannot be by only the functional requirements of the product. There are many studies aimed to develop methodologies among the brand management, adopting emotional methodologies indeed (Consoli, 2010). “The emotional perception” of a certain product/service, can drive the lead's decision, in order to become a customer. And later, this perception might consolidate the relation between the customers and the product, obtaining what is defined as: customer loyalty (Yaghoubi et al., 2011). Here is the field in which the brand's communication shares its values with the consumer. Therefore, referring to a commune values prospective, the finding is that the leadership management might find this commune space of shared values. Consequently the individuals, after recognizing a commune value shared space, would be following the leader. It is now evident how can be done a parallelism with the brand's customer loyalty process.

Table 1. Individual needs in relation with the organization's and brand's ones, through the value proposition

Individual/ Organization needs – Brand Objectives	Organization Needs/ Brand Objectives	Effects	Result
Individual Needs	Values Proposition	Acceptance of the rules/ Recognizing Themselves in Values/ Understanding the Values	Leadership/Customer Loyalty
	No Values Proposition	No understanding of the rules/ No values perception	No Leadership/ no Customer Loyalty
	No Values Proposition/ Wrong Values Proposition	Contrasting the rules/Not sharing the values	No Leadership/ no Customer Loyalty /no Purchase

Source: own elaboration.

7. Conclusion

It has been shown how an organization, composed by – for instance – a huge number of individuals, cannot match all the individual's needs. This happens due to the fact that the many subjects involved have many different needs. And these subjects might be each one much different and – consequently – with very different needs. Therefore it becomes a goal of the organization, finding a commune field in which the subjects involved share values, that are proposed and pursuit by the organization itself. It has been explained that an organization able to establish a leadership with the community, is able to achieve the established objectives. This happens due to the fact that, once the community accept the leadership, therefore accept the rules established by the organization, and share the objectives with the organization itself. This successful leadership process, has been proved to be one of the key assets in the business too. It has been shown that those companies that aim to be recognized as institutions, and have a clear value proposition, can achieve better economical results. In the brand management the value proposition is – another time – a key factor for the success. As explained previously, it is possible to delimit a parallelism with the organization leadership process and the brand management, from a need prospective; both cannot match all the needs of people involved by only functional requirements, but, in order to success, they must find a commune field in which the subjects involved share the value proposed.

These values must be reflected by the actions of the organization, internally and externally, in order to not create contradiction, that would ruin the company's public perception. Furthermore it has been shown how the individual's emotional intelligence plays an important role in leadership process. Once the individual accept to share the values, and – consequently – accept to pursuit the shared objective, not behaving accordingly would constitute a status of stress for the individual him/herself. This studies fortify the idea that individual if strongly motivated, might put much effort in achieving the established objective, due to a real physical need.

A good management into a good organization that aims to be recognized as an institution by group of people that – consequently – becomes a community, cannot choose a internal and externa strategy in which the value proposal is not clearly defined and pursuit by the actions.

Bibliography

1. Amit, K., Popper, M., Gal, R., Mamane-Levy, T., & Lisak, A. (2009). Leadership-shaping Experiences: A Comparative Study of Leaders and Non-leaders. *Leadership & Organization Development Journal*, 30(4), 302-318.
2. Avolio, B.J. (1999). *Full Leadership Development*. CA: Sage, Thousand Oaks.
3. Bass, B.M. (1999). Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9-32.
4. Bennis, W.G. (1989). *On Becoming a Leader*. New York: Addison-Wesley Publishing.
5. Brown, T.J., & Dacin, P.A. (1997). The Company and the Product: Corporate Associations and Consumer Product Responses. *The Journal of Marketing*, 61, 68-84.
6. Burns, J.M. (1978). *Leadership*. New York: Harper & Row.
7. Carmichael, L., Collins, C., Emsell, P., & Haydon, J. (2011). *Leadership and Management Development*. Oxford University Press.
8. Consoli, D. (2010). A New Concept of Marketing: The Emotional Marketing. *BRAND. Broad Research in Accounting, Negotiation, and Distribution*, 1(1), 52-59.
9. Day, D.V. (2000). Leadership Development: A Review in Context. *The Leadership Quarterly*, 11(4), 581-613.
10. Grönroos, C. (1994). Quo vadis, Marketing? Toward a Relationship Marketing Paradigm. *Journal of Marketing Management*, 10(5), 347-360.
11. Groves, K.S. (2006). Leader Emotional Expressivity, Visionary Leadership, and Organizational Change. *Leadership & Organization Development Journal*, 27(7), 566-583.
12. Hernez-Broome, G., & Hughes, R.L. (2004). Leadership Development: Past, Present, and Future. *People and Strategy*, 27(1), 24.
13. Holck, L., Muhr, S.L., & Villesèche, F. (2016). Identity, Diversity and Diversity Management. *Equality, Diversity and Inclusion: An International Journal*, 35(1), 48-64.
14. Kidwell, B., Hardesty, D.M., Murtha, B.R., & Sheng, S. (2011). Emotional Intelligence in Marketing Exchanges. *Journal of Marketing*, 75(1), 78-95.
15. Kirkbride, P. (2006). Developing Transformational Leaders: The Full Range Leadership Model in Action. *Industrial and Commercial Training*, 38(1), 23-32.
16. LeDoux, J. (2003). The Emotional Brain, Fear, and the Amygdala. *Cellular and Molecular Neurobiology*, 23(4-5), 727-738.
17. Leslie, J.B. (2015). The Leadership Gap: What You Need, And Still Don't Have, When It Comes To Leadership Talent. Retrieved on: 26/05/2016, from: <http://media.ccl.org/wp-content/uploads/2015/09/Leadership-Gap-What-You-Need.pdf>.
18. Sen, S., Bhattacharya, C.B., & Korschun, D. (2006). The Role of Corporate Social Responsibility in Strengthening Multiple Stakeholder Relationships: A Field Experiment. *Journal of the Academy of Marketing Science*, 34(2), 158-166.
19. Sen, S., Bhattacharya, C.B., & Korschun, D. (2006). The Role of Corporate Social Responsibility in Strengthening Multiple Stakeholder Relationships: A Field Experiment. *Journal of the Academy of Marketing Science*, 34(2), 158-166.
20. Slovic, P., Finucane, M.L., Peters, E., & MacGregor, D.G. (2004). Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality. *Risk Analysis*, 24(2), 311-322.

21. Waldman, D.A., Ramirez, G.G., House, R.J., & Puranam, P. (2001). Does Leadership Matter? CEO Leadership Attributes and Profitability under Conditions of Perceived Environmental Uncertainty. *Academy of Management Journal*, 44(1), 134-143.
22. Yaghoubi, N.M., Doaei, H., & Ardalan, A. (2011). The Effect of Emotional Intelligence On Relationship Marketing. *Interdisciplinary Journal of Contemporary Research in Business*, 3(5), 901-905.
23. Yukl, G. (2006). *Leadership in Organizations* (6th ed.). Upper Saddle River, NJ: Pearson-Prentice Hall. Retrieved on: 25/05/2016, from: http://www.sagepub.com/sites/default/files/upm-binaries/33554_Chapter1.pdf.

Chapter 25

CRM System as a Keystone of Successful Business Activity

Tetiana Girchenko, Yana Ovsianikova, Liudmyla Girchenko

1. Introduction

During the destruction of traditional competitive division forms, relationships between business and clients become much better. Company's success depends on orientation on customer's needs, which are changing quickly. To deal with it, company needs to have much information about each customer: his interests, requests, behavior etc. This necessity determines using unique and personalized clients' base to track the history of customer interaction and sales forecasting. Huge part of such kind of information needs to automate the process of collecting, organizing and analyzing this data. According to this, individual approach is implemented and because of such approach level of customer's trust, number of key clients and company's revenue become higher. To reach these goals, each company needs to implement system of CRM strategies.

2. CRM system concept

CRM system helps companies to manage their work with customers successfully, to streamline and plan it in order to increase sales, optimize marketing and improve customer service by storing customer information and history of relations with them, establish and improve business processes with further analysis results.

The main idea of CRM concept is achieving by the company competitive advantages with providing, supporting and developing long-term profitable relations with customers by understanding their individual needs. CRM – is the concept, which is aimed to build strong business relations with clients that has client-oriented method as a core. Such strategy is based on the advanced management and information technology, through which company collects information about its customers at all stages of their life cycle (attraction, retention, loyalty), receives from it a knowledge and uses this knowledge for the benefit of their businesses by building mutually beneficial relationship. It aims to optimize revenue, profitability, lower operating costs per user and customer satisfaction.

The result of the application of CRM strategy should be an improving the competitiveness of enterprises and increasing profits because just properly built relationships that are based on a personal approach to each client can attract new customers and help retain existing ones. The human orientation is very popular in modern business. It is the bilateral concept that means the personalized approach to the customer service from the one side and, in the same time, the customer's desire to see the company's face in another side (Girchenko & Ovsiannikova, 2016).

We can say that CRM is not technology, not "boxed" software product or set of products. First of all, CRM is a direction to build a sustainable business concept and business strategy, the core of which is a client-oriented approach. As a modern technology CRM is a set of application related to business logic only and integrated into the corporate IT environment of the company (often in the form of add-on ERP) that is based on an original database. Special software allows to automate relevant business processes in marketing, sales and service. In terms of business management of enterprise CRM is a system of the front office organization (units that directly interact with customers), focusing on customer needs (Lishchynska, 2015).

Today the most popular CRM systems used by global businesses are Salesforce, Microsoft Dynamics CRM, Pegasystems, Oracle, Zendesk, bpm'online, CRMnext, SugarCRM, Freshdesk, Eptica, mplsistemas, Verint, Lithium, SAP, NetSuite and others. Some of them are already fixed in the market, other ones are just gaining popularity, but all of them have either their own advantages and or drawbacks. Thus, every separate system suites in the best way for certain types of business.

As it was said earlier, the core of CRM is the customer oriented principle, which is implemented through measures ensuring the construction of effective marketing strategies, marketing system and customer service. To achieve these objectives there is using a system of collecting, storing and analyzing information about customers, partners, suppliers and internal processes etc.

Development of CRM-strategy contains from these blocks:

1. Database with information about company's clients.
2. The way of analyzing the information from this database.
3. The strategy of analysis implementation for better learning of customer needs and identifying future clients.
4. Data collection to discover if the strategy is effective (*Customer...*, 2013).

The necessity of full information about the user for predicting his actions involves the deployment of CRM on the following basic principles:

- Availability of the customer base as a single source of information containing data about interaction with customers,
- Using of multiple interaction channels, including services of retail outlets, phone calls, emails, events, appointments, registration forms on websites, advertising links, chats, social networks, etc.,
- Analysis of collected information about customers and preparing data for decision making (selection of priority market segments, forecast of customer response to certain actions and proposals of the company).

Therefore, CRM technologies use the wide variety of channels for improving company's interaction with client, examine its requests and predicting his actions.

In addition, it is necessary to understand that the operational and analytical CRM are fundamentally different systems.

Analytical CRM is a management tool, which is based on accumulated data about customers, history of their service and interaction with the bank that can analyze it from different perspectives. This system can detect patterns that help to draw conclusions on the causes, consequences and predict decision to change the product mix by adjusting the sales process, marketing strategies of companies and so on.

Modern business, especially retail banking is very dynamic. Analytical CRM in it is vital for finding causal relationships between actions of the bank for sale and their results. For the success of this analysis CRM should recycle a huge amount of information is often fragmented and unstructured.

Analytical CRM is the closest to the Business Intelligence (BI) technology. All required data is actually loaded into the repository, and, based on BI tools using OLAP technology (Online Analytical Processing) group reports are created (produced, for example, scenario analysis). This implementation of analytical CRM – BI-based storage – is typical for many banks. The typical example of the effective using of analytical CRM is job segmenting customers and sales analysis in terms of products, regions and segments, analyze the effectiveness of marketing activities and many others.

Operational CRM, focused on the automation of customer interaction. It is particularly effective in those business segments where there is a multi-funnel sales, long sales cycle, accompanied with voluminous document and so on.

While CSM technologies are designed for collecting, organizing and analyzing comprehensive information about the consumer, they are doing a wide range of tasks related to various aspects of the company.

In terms of the marketing CRM is designed for market research surveys to determine consumers' needs or search for potential clients to determine their needs and preferences.

The objective of CRM in terms of sales is to take all measures to ensure the timely execution of orders, allowing to create an archive of all orders, facilitates the paperwork required for the sale.

To improve customer interaction CRM enables to compile a database of every client, which includes contacts, customer name, archive requests implemented orders and more.

In the service sector, CRM includes all aspects of service, delivery, complaints, requests etc.

For the company's performance evaluation CRM collects data about the working on customer interaction in all directions and evaluates the effect of business with the possibility of future using the results to develop a strategy.

CRM integration provides the ability to exchange information between components of the system with other systems.

According to these objectives, we can formulate the main benefits of using CRM systems:

- Fast data processing and decision making process,
- Improving the quality of service, loyalty and retention,
- Saving time by reducing the costs of searching for information,
- Individual marketing and marketing efficiency measurement,
- Reducing the cost of customer service,
- Improving the quality of service.

So, using of CRM technology not only simplifies the process of finding and analyzing information about customers, but also allows to organize efficiently the company management and increase customer loyalty.

Development CRM strategy is a company's time investment, which will pay off in long-term period. Creating the strategy allows to set the direction for CRM-initiatives and ensures that the company's investment aims are promoting closer relations with customers.

CRM is designed to make work with large amounts of data easier for employees. On average, 9 out of 10 workers are losing sales opportunities because of too much information. Three of four workers believe that would conclude more transactions by using a technology of large data amount management. According to research, employees spend 24% of their time searching for the information.

CRM is the fastest growing segment of business software. In 2015, the level of use of CRM has grown from 56% to 74%. Global spending on CRM was up to 23.18 billion USD (of which 78.6% are spending Europe and America). According to forecasts, the cost of CRM in 2017 will amount to 36.5 billion USD (Integros).

According to researches, ROI (Return on Investment – ratio, which evaluates profitability, given the amount of investments) on the implementation of CRM systems is 5.60 American dollars in average for every dollar spent. However, this efficiency is not achieved at once: the total amount of time required for ROI is 3-5 years.

Thus, the benefits of working with CRM systems are:

- 74% of users reported that CRM system improved their access to client data,
- CRM increases sales for 29%,
- CRM improves customer retention for 27%,
- CRM reduces the cost of sales and marketing for 23%,
- CRM improves forecasting accuracy for 42%.
- Per one vendor, CRM can increase profits for 41%.
- 75% of companies are not engaged in growing leads, for them it makes CRM system (Integros).

Evaluation of the impact of CRM system on basic business processes is shown on Figure 1.

Figure 1. Impact of CRM on business processes (Retail CRM)



Source: retrieved on 05/02/2017, from: <http://www.retailcrm.ru/>.

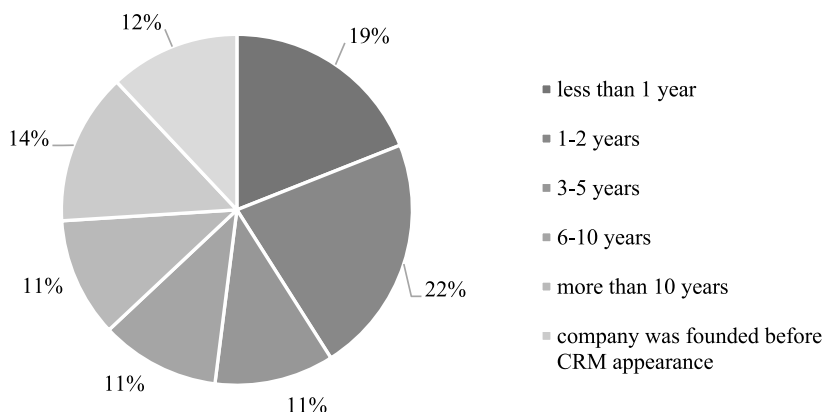
One of the main advantages of using the CRM is the individual approach to customers based on his previous actions. Thus, 34% of consumers don't use brand longer products because of receiving irrelevant messages. In addition, 33% of consumers have complained that the messages they received were too formulaic and went all in a row. So using CRM enables customer to keep and increase its loyalty to the company (Harris ..., 2014).

Aspects of business are most affected by the implementation CRM:

- Maintenance of consumers (47%),
- Customer satisfaction (47%),
- Income from sales (45%),
- Cross-selling (39%) (Capterra).

Necessity of using CRM aware of the most modern companies. In particular, 65% of companies have started using CRM system in the first five years after its foundation, and 11% of them are not satisfied with the existing CRM system at all (Fig. 2):

Figure 2. Time, after which companies start to use CRM (Capterra)



Source: retrieved on 05/02/2017, from: <http://www.capterra.com/>.

More than important task is the integration of CRM with other software. For example, through the integration with accounting software CRM system gives to business a complete picture of customers, systematizing huge amounts of data and automatically outputting the results.

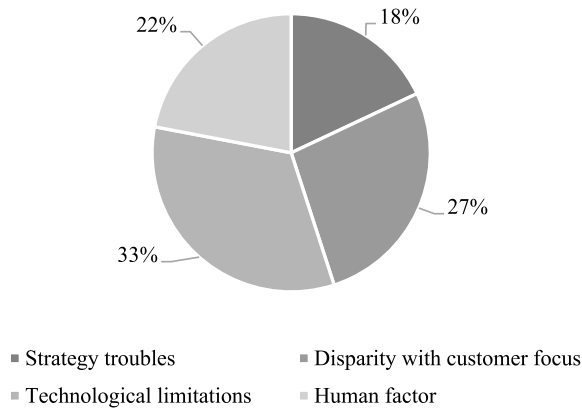
Nowadays the most used properties of CRM by business are: calendar management (52%), e-mail-marketing (50%), management proposals (46%), automated integration of marketing (44%) and leads accounting (44%).

The most desirable characteristics of CRM for modern companies are monitoring social media (25%), the retraction contact social profiles (24%), mobile application (19%), tracking loyalty of consumers (19%), integration of e-commerce (16%), assignment territory (16%).

Despite all these benefits, one third of enterprises faces difficulties with implementing CRM, and 43% of employees use less than half of the proposed CRM functions (Clinchpad).

The reasons for the failure in using CRM-systems shown on Figure 3.

Figure 3. Reasons for failure of CRM-systems (Moxie)



Source: retrieved on 05/02/2017, from: <http://www.gomoxie.com/>.

1. Strategy problems: inadequate deployment of strategic methodology (40%) incorrectly identified business requirements (25%), failure to achieve organizational purposes alignment (18%) and inability to tightly regulation the cost of the program (18%).
2. Difficulties in complying with customer focus: technical (integration) difficulties in maintaining the company's processes (48%), poor design of business processes (31%), the need to configure solutions to meet unique organizational requirements (21%).
3. Technological drawbacks: functional deficiencies found in the vendor (30%), lack the necessary skill set required to implement the solution (23%), problems with data (19%), shortage of system performance (19%), difficulty of use (8 %).
4. Human factors: the slow adaptation of users (40%), inadequate attention paid to change management and training (30%), difficulties in the coordination of organizational culture with new working conditions (15%).

By automating the process of entering data into CRM, the company can increase sales for 5 thousand per year and increase profits for 2 million American dollars (Accent, Sales enablement platform).

Consequently, preconditions of CRM functions expansion with the inclusion of sales are in automation the process of entering sales data, data visualization, analytics sales, and the ability of workers to have access to all data of sales through CRM, dynamic recommendations to the employee in the sales process and the possibility of divisions collaborate freely on one platform.

CRM is developed over decades and will continue to evolve with new technological advances that increase opportunities, through which business can interact with clients. Companies should be prepared to adapt their CRM initiatives to meet new customer behavior in a market that is developing dynamically. There are some basic CRM trends on the horizon, to which enterprises should be ready.

1. Mobility. Thanks to the development of technologies smartphones and tablets become more popular, as customers increasingly use the Internet at any time of day. These new mobile

technologies create a sense of immediacy between client and business like never before. CRM strategy must be aligned with the new needs and expectations of customers who have ongoing access to data and tools to express their opinion.

2. Integration of CRM into business processes. A huge amount of information about customers, sales trends and other information that affects business is made by available using modern CRM. From sales and marketing to customer service and executive management, CRM should be integrated into all of the business processes spheres.
3. Experience in customer relations. Customers affected by a huge number of brands and choice necessity today. If companies want to attract and retain customers, they have to do more than just provide the information they need to make a lasting emotional impression. New CRM tools give businesses the information they need to understand their customer and find the right approach for them (Technopedia).

Social CRM (SCRM) strategy extends the customer relationship management in social media by using social networks and instant messaging.

The spread of social media is changing business landscape, offering new channels for a more personalized search and communication with clients. New CRM solutions make it possible to take advantage in this area. By 2017 82% of companies planned to increase their use of social media during the sales (Forbes).

Experts estimate that 45% of consumers engage with brands via social media. The main causes of consumer interaction with brands via social media is the purchasing and discounts system (TrackVia).

Therefore, social CRM is the leading trend in the development of enterprise software. Social CRM is a philosophy and a business strategy supported technology platform, business rules and workflow, designed to attract customers to interact in order to ensure mutual benefits within a trusted and transparent business environment.

3. Gartner Magic Quadrant

As a large part of the market software, CRM systems could not stay unnoticed by major research companies such as Gartner. This is a public company, which is a research and consulting center that deals with regular monitoring of the market of information technologies and software. Analysts of Gartner define the Magic Quadrant concept, maturity cycle technology and ERP (Enterprise Resource Planning) – organizational strategy of integrating production and operations, human resources management, financial management and asset management that is focused on continuous balancing and optimizing enterprise resources. Gartner Research results are published regularly in such prominent publications as the Financial Times, The Wall Street Journal, The New York Times, The Register and others.

One of the main components of Gartner's research is a variety of CRM systems used by modern business. Most of market researchers conducted on the principle of Magic Quadrant – specific analysis of any segment of the distribution of manufacturers indicated quarter. Manufacturers sometimes notice their own hit in the quadrant with separate press release as market recognition of their achievements (even when the company is in a niche players quadrant only).

Thus, the most common Quadrant for CRM-systems as of the second quarter 2016 by Gartner research is shown on the Figure 4.

Figure. 4 Gartner Magic Quadrant for CRM-systems analysis in May 2016 (Gartner)



Source: retrieved on 05/02/2017, from: <https://www.gartner.com/doc/reprints?id=1-32AE-ZIA&ct=160331&st=sb>.

4. CRM in the bank

Nowadays, CRM systems are used in all areas of global business: production, sales, consulting, financial services and others. In addition, speaking about the last one should be noted about the specific use of CRM systems in commercial banks.

According to conclusions of different analysts, soon digital technologies will become the main channel of communication and interaction client and the bank (Girchenko & Kossmann, 2016). Thus, using of CRM systems within a bank becomes more and more useful, necessary and easy, because of automatic filling it with needed information. The most part of banks managements take course to introduction of CRM systems when it recognizes the need to provide the compliance with product and service expectations of customers and interact with them took place based on individual characteristics of the client.

However, if the implementation of CRM systems in the bank is focused on registration of information about clients only, the goal will not be achieved. For the purpose of any business organization – and the bank is not an exception – to increase profits. Therefore, CRM technology, first of all, should help bank to meet the challenges of increasing customer profitability.

Given the fact that 80% of the revenue is made by just 20% customers, CRM system should help the bank to “know their heroes”, that means these 20%. Thus, managers will focus their action on conservation and enhancement of the “golden fund”.

As with any business, there are a range of specific features with the integration of the system into the commercial bank’s work.

In the term of modern banking as a business relationship, it requires a change in the organizational structure of the bank, and models of business, formation of skills of employees working with clients. A significant step forward in this direction have had one Spanish bank Santander and the Singapore unit of Citigroup. The bank Santander all departments was sending weekly list to clients, which, according to the system of processing data sets (similar to software CRM), may be interested in specific products, such as insurance house. The system finds the customers who recently purchased property – i.e. a transaction carried out on a significant amount of money and bank employees, offering related services allowing for the account first. By the same principle the Singapore representative of Citigroup offers a special discount service: tracks the time of day, location and purchase history patrons, whereby forming individual offer.

Thus, a number of problems may be solved:

- Hiring new employees and their adaptation,
- The transfer of the client base of the other (new) manager,
- Interchangeability of managers for the holiday period or in case of illness and others.

Thus, CRM system – is not just a single database of customers, but the mechanism is able to maintain, and most importantly, optimize the ratio “80x20” by the Bank with the right used business processes, procedures and their implementation signals CRM system.

New business trend is the use of cloud-based CRM systems. Sellers realize that should be as mobile as their buyers already are. The transition from installed CRM system offers cost savings, scalability and flexibility (IBM). This explains the rapid growth of cloud software: 6 years ago, only 12% of companies was using cloud CRM system, in 2016 their number has increased to 87%.

The benefits of cloud software:

- Access from anywhere,
- Zoom in or out depending on needs,
- Integrated mobile apps for Android and iOS,
- Integration is easier to initiate and support,
- Collaboration and accounts via mobile devices,
- Backup data from more than one location,
- Simple documentation of social interaction,
- Reducing the cost of software,
- Support “green” initiatives,
- Better understanding of the customer,
- Setting up a specific business,
- Track the full life cycle of the consumer,

- Increasing sales, improving customer service, internal communications, customer retention, etc.,
- Increasing productivity for 14.6% (Matrix Consulting).

Thus, the boom of smartphones and the development of mobile broadband Internet access around the world plays a crucial role in the development of mobile CRM technology. Over 80% of companies plan to increase the using of mobile applications. Overcast software is becoming increasingly popular and offers a cost-effective way to collect customer data for business. Cloud CRM system should minimize TCO and IT costs, and facilitates the integration of data from other sources.

5. Conclusion

CRM – is not only a system for collecting information of customers. CRM involves using technology to collect the knowledge that is necessary to provide improved support and services to customers. Therefore, CRM uses the information for better satisfying the needs of existing customers and identifying new customers, resulting in increased profits for the company. The factual efficiency of involving CRM into day-to-day business activity depends on the initial goals of it. It means that CRM does not function just for providing simple current operations (like accounting or data base holding), but it serves to optimize global business scores regarding its clients. In addition, today on the global IT-market there are many different CRM systems, which are separately suitable for different business areas. Thus, another way to provide effective CRM using is to choose “right” system exactly for this kind of enterprise and its targets.

Bibliography

1. *Accent, Sales Enablement Platform* (2017). Retrieved on 05/02/2017, from: <https://accent-technologies.com/>.
2. *Capterra* (2017). Retrieved on 05/02/2017, from: <http://www.capterra.com/>.
3. *Clinchpad* (2017). Retrieved on 07/02/2017, from: <https://clinchpad.com/>.
4. *Customer Relationship Management Accessible, Queen's Printer for Ontario* (2013). Retrieved on 05/02/2017, from: www.onebusiness.ca/.
5. *Forbes* (2017). Retrieved on 05/02/2017, from: <http://www.forbes.com/>.
6. Girchenko, T. (2016). Vprovadzhennia ta rozvytok tsyfrovoho marketynhu u suchasnomu bankivskomu biznesi. *Mizhnarodnyi Zbirnyk naukovykh prats «levropeiske spivrobitnytstvo»*. 12(19), 68-85.
7. Girchenko, T. (2016). Digital Marketing and Its Role in the Modern Business Processes. *European Cooperation*, 11(18), 24-33.
8. *Harris Interactive Quick Query Omnibus Survey* (2014). Retrieved on 07/02/2017, from: <http://www.oracle.com/>.
9. *IBM* (2017). Retrieved on 12/02/2017, from: <https://www.ibm.com/>.
10. *Integros – CRM Innovations* (2017). Retrieved on 07/02/2017, from: <http://www.integros.com.ua/>.
11. Lishchynska, L.B. (2015). Osnovni aspekty avtomatyzatsii roboty z klientamy zasobamy CRM-system. *Khmelnitskoho Natsionalnoho Universytetu*, (5)1.

12. Maoz, M., & Manusama, B. (2016). *Magic Quadrant for the CRM Customer Engagement Center*. Retrieved on 05/02/2017, from: <https://www.gartner.com/doc/reprints?id=1-32AE-ZIA&ct=160331&st=sb>.
13. *Matrix Consulting* (2017). Retrieved on 12/02/2017, from: <http://matrixconsulting.citrix-showcase.com/>.
14. *Moxie* (2017). Retrieved on 05/02/2017, from: <http://www.gomoxie.com/>.
15. *Retail CRM* (2017). Retrieved on 05/02/2017, from: <http://www.retailcrm.ru/>.
16. *Technopedia* (2017). Retrieved on 07/02/2017, from: <https://www.techopedia.com/>.
17. *TrackVia* (2017). Retrieved on 05/02/2017, from: <https://www.trackvia.com/>.

PART III

MARKETING MANAGEMENT – CONTEMPORARY CHALLENGES AND DILEMMAS



Chapter 26

The Impact of CRM Strategy on Business Outcomes¹

Dagmar Lesakova

1. Introduction

Customers are a strategic asset and a source of competitive advantage (Porter, 1985) and therefore development of strategies for managing customers is crucial in boosting business growth (Chakravathy et al., 2003).

At the beginning of customer relationship management (CRM) formation (1991-2000) computer science played a key role, with customers viewed as an “object” that can be managed better with the help of information and communication technology (ICT) (Nonaka, 1995). The literature on customer management (CM) in an IT perception considered knowledge as an object that can be managed by information technology tools, like intranet, data warehouses, document management systems or decision support systems (Gummesson, 2003).

In the expansion stage (since 2000), there was a shift in CRM from “IT as databases” to “IT as an interaction and communication technology”. Repositioning CRM as an “IT concept” to CRM as a “social process” emphasized the feedback aspects of customer management (Brown & Duguid, 2001). This approach views customers as a key resource that can create competitive advantage (Vera & Crossan, 2003).

An integration based CRM occurs when customers are involved in the value chain of the company and freely interact with its employees (Easterby-Smith & Crossan, 2000). Academic literature offers plenty of definitions of customer management. Most of existing CRM definitions were focused on a special particular aspect, because they were rooted in different disciplines. The information technology discipline viewed CRM as a technical activity of providing IT, which stores the customer information. Researchers in the organizational economics viewed customers as an asset and emphasized the need to utilize it. The research in organizational learning stressed the importance of communication, collaboration and learning (Bhatt, 2001). However, little effort has been made

¹ The paper was developed within a Research project VEGA 1/0224/15 “Consumer Behaviour and individual consumption in the periods of unemployment and relative deprivation of population: implications for decision taking bodies and business”.

to integrate these different perspectives. This could be one of the reasons why much of the CRM concepts adopted an IT approach and the needed focus on mutual learning was missing.

Our paper explores different approaches to the focus in customer relationships management and how it affects the company performance. The principle goal of our research is to determine the impact of the effects that different focus in CRM exhibits on company performance.

Recently academic literature does not differentiate between “customer relationship management” (CRM) and “customer management” (CM) and employs both terms as synonymous (Payne, 2006). The CRM in our paper is understood as a business approach that seeks to create, develop and enhance relationships with carefully targeted customers in order to improve customer value and corporate profitability (Payne, 2006). It is a set of processes to bring benefits to both customers and a company (McDonald, 2002).

This definition comprises three aspects: a) developing, and enhancing relationships with customers, b) improving customer value, and c) improving corporate profitability. Equal emphasis is put on satisfying customers and enhancing their value. By adopting an integration focus to the CRM, it emphasizes the importance of mutual learning (Brown & Duguid, 2001).

Several literature sources (Schiuma, 2012) examined the relationship between customer management and performance outcomes (Zack et al., 2009). In contrast to the general views assuming that CRM automatically generates better business performance, we only postulate that customer management could facilitate and simplify managing customers. We do not automatically presume performance gains. The question of CRM impact on company performance is the core of our research.

2. Three types of focus in CRM

Three types of focus in CRM are examined in our research: ICT focus, interaction focus, and integration focus. Each of the three named focus categories highlights a different component of CRM. Although these three focus types differ from each other, they could complement each other in managing the different aspects of customers and providing company benefits.

Companies following ICT-focused customer management install technical infrastructure and rely on technology to deliver CM. Such organizations expect that processing customer data automatically leads to customer management. However, providing technological tools is only a passive approach based on the idea that customer relationships will be managed when the technology is used (Nonaka, 1995). However, information technology can only inspire, but cannot create effective customer management, because this requires all three elements of a triad: technology – people – processes (Liao & Wu, 2009).

In an interaction-focused CM, the company focuses on collecting feedback through recording and storing it in data warehouses in order to be accessible and reused in the future by the employees. Firms that use an interaction-focused customer management, view it as a tool to retain their existing customers and to develop an organizational memory (Ziglidopoulos & Schreven, 2009). They store documents in repositories. However, in all the repositories only the explicit component of customers' feedback information can be recorded. The interaction-focused CM does not manage tacit knowledge, because tacit dimensions of knowledge are present only in social interactions. The aspects of tacit knowledge transfer are managed in the integration-focused CM.

Integration-focused CM is guided by the idea that mutual learning is crucial to managing relationships with customers. Integration-focused approach puts an emphasis on mutual learning that arises from mutual interaction between customers and company employees. It enables to leverage customer knowledge and improve company's processes (Peterson & Wilson, 1992). By creating appropriate strategy and culture this integration focus stimulates the process of innovation and creating new knowledge (Christopher et al., 2002).

Each of the three examined categories emphasize different component of CRM. Technology is a prerequisite for interaction and interaction facilitates integration with effects of mutual learning. Learning processes become more effective when technological infrastructure facilitates communication and transfer of information between company employees and customers (Bhatt, 2001). As a result, these three management approaches can be considered as complementary.

3. Goals and methods

The goal of our paper is to explore the effects of different focus in customer relationships management on company performance. The principle question we raise in the research is focused on the determination of the effects generated by different CRM focus on business performance. To come to the conclusion, we formulate relevant research hypotheses.

Several authors (Vera & Crossan, 2003) document that a mere focus on technology is not sufficient to manage customers and thus create performance benefits. ICT-focused CRM focuses primarily on delivering infrastructure and does not develop systems and processes to enhance customer relationships.

Companies that emphasize interaction, create repositories in order to store, manage and distribute the customer feedback information. By emphasis put on collecting feedback information they can benefit from accumulated experience/expertise and save the costs. However, because of fast environmental changes, new competitors and fast business development, these benefits may be only short-term.

Relying on exploitation of feedback information may weaken innovation and offensive customer strategies. Mere reliance on feedback information prevents companies frequently from product and process innovations that are necessary for growth. Therefore we state following hypotheses:

H1: Interaction-focused CRM will result in a higher level of performance than ICT-focused CRM.

H2: Integration focused CRM will result in a higher level of performance than Interaction-focused CRM.

By providing suitable conditions and processes, the integration-focused management facilitates the creation of customer value and provides performance benefits (Cronin et al., 2000). Generating performance effects through customer integration into value-chain process of a company is resource intensive and also time-intensive process.

Performance measure used in the research was explored based on several indicators identifying processes ensuring long-term success and survival of a company such as ability to respond to external changes, innovativeness of a company, relationships to customers and employees, ability to identify new opportunities. Multi-indicators measures were generated on the constructs used in the research (ICT-focused CRM: 3 items, interaction-focused CRM: 3 items, integration-focused

CRM: 4 items, performance measure: 5 items). 7-point scale was used to assess the particular indicators, with mean values calculated for every construct.

The indicators used for the questionnaire are given in Table 1.

Table 1. Constructs and their indicators

Constructs and indicators
ICT-focused CRM
Implementing ICT-focused CRM in our firm is important for managing customers
Developing ICT-focused CRM is responsibility of specially appointed managers
Our firm uses technology as a principal instrument for managing customers
Interaction-focused CRM
Our firm emphasizes recording and collecting customers' feedback in data repositories
Our firm stores customer feedback for future use
Storing feedback information prevents our firm from losses when employees leave
Integration-focused CRM
Our firm emphasizes involving customers into value chain as an instrument of mutual learning
Customers share their experience with the employees in the firm
Systems in place to motivate integration of customers into a value chain of a company
Customers participate in critical decisions made by the company
Long-term performance (Company processes ensuring long-term success)
Our company is able to respond quickly to changes in customer needs
Our company has a potential of fast innovations
Our company is able continuously to identify new business opportunities
Customers of our company are loyal
Our company has a potential to ensure future performance

Source: own composition.

The sample for empirical research consisted of 105 companies from 5 industry sectors: machinery (43), electronics (18), food production (23), wood processing (11) and construction (10). Regarding the focus of CRM, 18 companies employ ICT-focused customer relationship management, 63 companies follow interaction-focused customer relationship management and 24 companies adopt integration-focused customer relationship management. Companies were asked to assess every indicator (see Tab. 1) on a 1-7 point scale (1=strongly disagree, 7=strongly agree). Following, semi-structured interviews were conducted with eight companies. The interviews covered a range of questions clarifying the concept of CRM in the company.

4. Results and discussion

The hypotheses were tested using one-way ANOVA. Testing for the significance was done by using F-tests.

Hypothesis one proposes that Interaction-focused customer relationship management is associated with higher performance than customer management focused on ICT. An analysis of variance (ANOVA) was undertaken to test the difference. The one-way ANOVA results show that the mean performance for ICT-focused management is significantly less than the mean performance for

interaction-focused customer management ($M(\text{ICTCM}) = 3.81 < M(\text{IntCM}) = 4.88$; $F = 14.801$; $p < 0.001$). Hypothesis H1 is supported due to the fact that an interaction CRM will result in a higher level of performance than ICT-focused customer relationship management.

In hypothesis two a positive difference in performance level was hypothesized between the effects of integration-focused customer relationship management and interaction-focused customer relationship management. The result of the ANOVA confirmed this suggested difference, indicating that the mean performance level associated with integration-focused CRM is significantly higher than the mean performance level of interaction-focused CRM ($M(\text{ItgCM}) = 5.22 > M(\text{IntCM}) = 4.88$; $F = 34.084$; $p < 0.001$). Thus the H2 is supported.

The variance testing revealed that both the hypotheses were supported. In other words, the difference-relationships associated with the focus of customer management were statistically significant.

Interviews with firms supported these findings and suggested that the role of ICT in the performance gains is limited. ICT focus in customer management is unlikely to provide any significant performance benefits. Facilitating the information flow was mentioned by companies as a main benefit of ICT-focused management, however with no direct influence on performance. These findings are in line also with other research studies (Payne, 2006).

It was also reported that mere reliance on usage of feedback information weakens the ability to generate new ideas and create new solutions.

Companies following interaction-focused CRM mentioned in interviews such performance benefits as openness in access to databases, fast response or retaining of important knowledge. These are, however, no long-term performance aspects. Both the questionnaire data and interviews suggest that interaction-focused CRM has only limited effects on long-term performance.

The original contribution of our research rests in investigation of differences in customer relationship management focus. We apply a structured approach distinguishing among three distinct types of customer relationship management approach. Most of existing studies do not explore the particular forms and focus of CRM approach and consider it as a whole. Results from our analysis reveal the hierarchy of different CRM focus and indicate that integration-focused CRM has a higher positive effect on long-term performance than both interaction-focused CRM and ICT-focused CRM.

5. Conclusion

The original contribution of the paper rests in examining the impact of different focus types in CRM on company performance. We found that integration-focused customer relationships management supports long-term benefits better than ICT-focused and interaction-focused customer relationship management.

The analysis of the three different focus alternatives in managing the customers confirmed their hierarchical nature. On the lowest-level is the IT-focused CRM, delivering IT tools in the company with the expectation that it will facilitate and foster information flow. On the middle-level, the interaction-focused CRM encourages feedback information from customers to be codified and stored in the databases. At the highest level, the integration-focused CRM encourages mutual learning and knowledge exchange between customers and a company.

The hierarchical effect was found also in the impact of the three customer focus strategies on company performance. The ICT-focused CRM has lowest documented effect on performance,

the interaction-focused CRM has moderate positive effect on performance, and the integration-focused CRM has a highest positive effect on performance. It was documented in the literature (Aydin & Ceylan, 2009) that mere focus on technology and storing information does not generate long-term benefits. The interviews with managers indicated that adoption of interaction-focused CRM does not support the creativity. Relying on IT tools can reduce the face-to-face social interactions necessary for mutual learning and creativity. As a result, the lower level customer relationship management styles produce weaker performance benefits.

Today, the need to find new ways to competitive advantage is driven by changes demanding more customer-oriented perspective. Competitive advantage can be gained by utilizing knowledge of customers' expectations, preferences and behaviour. This involves creating an ongoing dialogue with customers and exploiting benefits from integration customers in the value-chain of a company (Gummesson, 2002). Systematic attention to the customer relationship management can help companies to achieve competitive advantage through mutual learning, which is one of the resources for growth and competitiveness in fast changing world. Further research in the relevant area will continue also within the research project VEGA 1/0224/15 funded by Ministry of Education, Youth and Sport of Slovak Republic.

Bibliography

1. Aydin, B., & Ceylan, A. (2009). The Role of Organizational Culture on Effectiveness. *Ekonomie a Management*, 12(3), 33-49.
2. Bhatt, G.D. (2001). Knowledge Management in Organizations: Examining the Interaction between Technologies, Techniques, and People. *Journal of Knowledge Management*, 5(1), 68-75.
3. Brown, J., & Duguid, P. (2001). Knowledge and Organization: A Social-Practice Perspective. *Organization Science*, 12(2), 198-213.
4. Cronin, J., Brady, M., & Hult, T. (2000). Assessing the Effects of Quality, Value and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*, 76(2), 193-218.
5. Easterby-Smith, M., & Crossan, D. (2000). Organizational Learning: Past, Present and Future. *Journal of Management Studies (Special Issue)*, 37(6), 17-27.
6. Gummesson, E. (2002). Relationship Marketing in The New Economy. *Journal of Relationship Marketing*, 1(1), 37-57.
7. Gummesson, E. (2003). *Total Relationship Marketing*. Oxford: Butterworth-Heinemann.
8. Chakravarthy, B., Doz, Y., Devaki, R., & McEvily, S. (2003). Knowledge Management and Competitive Advantage. [in:] M. Easterby-Smith & M.A. Lyles (Eds.), *Handbook of Organizational Learning and Knowledge Management*. London: Blackwell Publishing.
9. Christopher, M., Payne, A., & Ballantyne, D. (2002). *Relationship Marketing: Creating Stakeholder Value*. Oxford: Butterworth-Heinemann.
10. Liao, S.-H., & Wu, C.-C. (2009). The Relationship among Knowledge Management, Organizational Learning, and Organizational Performance. *International Journal of Business and Management*, 4(4), 64-76.
11. McDonald, M. (2002). *Marketing Plans: How to Prepare Them, How to Use Them*. Oxford: Butterworth-Heinemann.

12. Nonaka, I. (1995). The Knowledge Creating Company. *Harvard Business Review*, 69(November-December), 96-104.
13. Payne, A. (2006). *Handbook of CRM: Achieving Excellence in Customer Management*. Oxford: Butterworth-Heinemann. Elsevier.
14. Peterson, R., & Wilson, W. (1992). Measuring Customer Satisfaction: Fact and Artefact. *Journal of the Academy of Marketing Science*, 20(1), 76-89.
15. Porter, M. (1985). *The Competitive Advantage: Creating and Sustaining Superior Performance*. New York: The Free Press.
16. Schiuma, G. (2012). Managing Knowledge for Business Performance Improvement. *Journal of Knowledge Management*, 16(4), 515-522.
17. Vera, D., & Crossan, M. (2003). Organizational Learning and Knowledge Management: Toward an Integrative Framework. [in:] M. Easterby-Smith & M.A. Lyles (Eds.), *Handbook of Organizational Learning and Knowledge Management*. London: Blackwell Publishing.
18. Zack, M., McKeen, J., & Singh, S. (2009). Knowledge Management and Organizational Performance: An Exploratory Analysis. *Journal of Knowledge Management*, 13(6), 392-409.
19. Ziglidopoulos, S., & Schreven, S. (2009). Strategic Foresight and the Role of Organizational Memory within a Punctuated Equilibrium Framework. [in:] L. Costanzo & R. MacKay (Eds.), *Handbook of Research on Strategy and Foresight*. Cheltenham: Edward Elgar Publishing.

Chapter 27

The Evaluation of the Application CRM Tools in Online Companies – Survey Research

Katarzyna Łukasik

1. Introduction

Customer Relationship Management (CRM) is a concept for managing a company's interactions with customers. It also involves using technology to organize, automate, and synchronize business processes. Moreover, the objectives of CRM are to enhance profitability, income, and customer satisfaction. To accomplish the CRM, many organizations use set of tools, procedures, and technologies to support the relationship with the customer and then to enhance sales. Therefore, CRM is an issue of strategic business and process rather than a technical one. The company should not ignore the significance of customer satisfaction. It is necessary to put the customer at the centre of the business according to its processes, events and strategies. In fact, it is easier and more profitable to sell something to present customers than to find new ones. Nevertheless, it is so important for the organizations to set themselves strategies in order to ensure customer retention, and change their employees to be more customer-focused and service-oriented.

The empirical analysis presents the impact of CRM on the customer satisfaction and it's based on survey questionnaire (online survey). With the results obtained through the analysis, the main aim of this paper is the presentation the complexity of the CRM together with the potential of it and also its influence on the customer satisfaction and loyalty during the online shopping. The study proceeds to present how the companies should use the CRM in order to influence the buying decision and meet customers' requirements.

2. Definitions of Customer Relationship Management (CRM)

The media of the 21st century have an inevitable influence on people's lives. It is wholly justified to assume that the Internet is going to be a leading force within a lot of areas, especially business ones. E-business is considered to be one of the easiest and fastest way to promote or sell the products and services. However, the worldwide success of e-business would not be possible without one of the rapidly developing branches of management – Customer Relationship Management

(CRM). In the age of globalisation, the business conducted over the Internet is flourishing due to the fact that thanks to CRM a majority of consumers are more and more satisfied and willing to buy something via the Internet.

CRM is a management philosophy which is helpful for companies to better meet customers' needs and increase their satisfaction. What is more CRM is defined as a computerized system for: identifying, targeting, acquiring, and retaining the best mix of customer. CRM is also considered to be a new approach, a new way of thinking, a new management concept. The essence of this philosophy is to manage new technology, processes, information resources and people to create such an environment which help, especially entrepreneurs, to have a full view of their customers (Kotorov, 2002, pp. 218-32).

CRM's environment is not the easiest one. It requires new way of thinking, organizational changes and vision of the business, just think out of the box (Brige, 2006, pp. 24-33). Additionally, CRM focus on managing customers in such a way to attract new ones and retain them. Thanks to it, companies improve their competitive ability. CRM deals with both customers and employees. So, creation of such an environment in which all employees take care of customers' behaviours, needs and abilities is essential in this process. It is very significant, especially in electronic commerce, where is no possibility to have face-to-face contact with the clients (Scullin et al., 2004, pp. 410-415). According to Kotler, Wong, Saunders and Armstrong (2005, pp. 165-167) the cost of attracting a new customer is five times more maintaining an existing one. Moreover, the CRM is literally connected with establishing customer relationship for a long period of time.

CRM creates a complete view of the customers to make right decision about offer, messaging, delivery channel and many others (Sheth et al., 2000, pp. 118-119; Krishnamoorthy & Srinivasan, 2013, pp. 151-161).

It is undoubtedly that reliable customer relationships are at the heart of every business success. So, it is worth mentioning that thinking about CRM only as technological terms is a mistake. It is much better to think about CRM as a strategic process. The best companies understand this difference.

3. The role and importance of CRM on the customer satisfaction

3.1. The Internet and CRM

In daily lives, it is observed the big influence of the Internet on the customer retention and satisfaction. Hence, thanks to appropriate usage of the Internet and CRM companies may affect the customers' decisions, behaviours and attitudes. It is all conducted behind social media, mobile phones, big data and the clouds. As people, places, things and services become increasingly strongly connected to the Internet and as the price of the products and services that connect them continue to decline, there will be a surprisingly increased need for marketing, sales and customer service teams to sell, promote and support these new things (Franklin, 2014).

Thanks to all these devices, which begin to help business to collect large amounts of data for every potential customers, for every individual, there will be a new opportunity for companies to use that data to sell their products and services to clients in real time based on their past attitudes and behaviours. The biggest challenge for the Internet in order to support the CRM

will be collecting, managing and analysing the real-time data output of the devices (Kennedy, 2006, pp. 58-69). All of the collected data will need to be stored, most likely in the cloud, and in any time be available for different users inside the companies, especially by sales, marketing and customer service teams in order to build and maintain strong and durable relationships with the consumers. To achieve CRM objectives it exists the application of Internet-based technologies such as emails, websites, chat rooms, forums and other channels, which is called Electronic Customer Relationship Management (E-CRM).

According to Kennedy E-CRM can be considered as strategic technology relationship marketing business framework (Kennedy & Coughlan, 2006, pp. 516-528). Shan and Lee say that (2006, pp. 95-99): “(...) E-CRM expands the traditional CRM techniques by integrating technologies of new electronic channels, such as Web, wireless and voice technologies, and combines them with e-business applications into the overall enterprise CRM strategy”. They further say: “(...) the ability to capture, integrate and distribute data gained at the organization’s Web site throughout the enterprise”. “The purpose of E-CRM is to serve the customers in better way, retain valuable customers and enhance analytical capabilities in an organization” say Fjermestad and Romano (2003, pp. 572-591).

E-CRM is helpful for businesses to track all sales and marketing activities easily, so in that way they can clearly see targets and make commitments and adjustments in new their products and services. Some of the benefits of E-CRM is to improve customer service, retain the constant customers, gain the new ones and to assist in analytical capabilities. Meanwhile, CRM is also an infrastructure which provides strong support to valuable customers for companies to remain loyal. What is more, E-CRM comprises of software, hardware, processes and applications to manage all these issues. In order to compete the opponents businesses need to create durable multichannel hub which can gather appropriate information from recognized customers, use them and make a single view of customers. The fact that around 70 percentage consumers who purchase at a given website will never do a second purchase, is just the wake-up call for all companies that there is a huge not only a service gap in online channels (Dyche, 2001, p. 173; Rahman et al., 2014, pp. 57-66).

E-CRM describes the broad range of new technologies used to support companies CRM strategy. It is easily observed the connection between traditional CRM and different types of e-business applications (Mahajan, 2015, pp. 1548-1550).

Another essential e-technology offering businesses new opportunities for managing customer interactions is voice response systems. They are very useful in the brands which need to have the services available 24/7. Otherwise, voice response systems may lead to increasing customer service quality, better understanding customers’ needs and behaviours and differentiating the companies in a very competitive marketplace.

The strong correlation between the Internet and CRM can observe within the new area — the Internet of Things (IoT). According to DuBravac Shawn, the Internet of Things (IoT) can be described as the start of another industrial revolution and will rival past technological advances such as the printing press, the steam engine, and electricity (2015, pp. 69; 75-77). The Internet of Things (IoT) represents the new network of items, physical objects — vehicles, devices, buildings and other items — each embedded with software, sensors, and network, which are associated to the Internet. This connection enables these objects to collect and exchange data (*Internet...*, 2017). The term Internet of Things is not so popular yet in Poland, however in light of above expectations, CRM and Internet of Things will be inseparable connection in the near

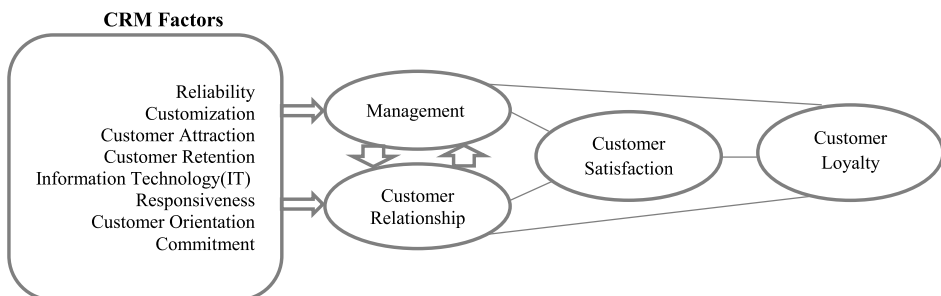
future. However, the essence about the Internet of Things (IoT) is that it embraces not only a “thing” but also all kinds of devices, software and networks from objects to domestic appliances, vehicles to infrastructure and so on. These objects will be able to acquire, analyse and transmit huge content of data that arise from the activity of companies and individuals. It is undoubtedly that CRM solutions play a crucial role not only now but especially in the future. Thus, no matter how business profile companies conduct, all of this data and interaction points must be taken into consideration in order to make business sense.

IoT is undoubtedly the future of CRM and data acquisition systems. Nowadays, more and more intelligent devices rely on technology. All companies who want to be a leader should engage in CRM together with IoT and use this changing trends to their advantage.

3.2. The impact of CRM on the customer satisfaction and customer loyalty

Customer loyalty is described as a customer commitment to deal with a particular company, and buy their products and services. A loyal customer not only encourages others to do business with the particular company but also constitutes the most important assets of it. Thus, more loyal customers mean long-term profit for the organization. From a business point of view, loyalty is: “(...) a psychological awareness process or the observable reaction of a consumer, where intentional and factual retention or intensification of the relationship is based on specific reasons” (Keaveney, 1995, pp. 71-82). Moreover, loyalty requires both a positive and negative attitude of the consumer towards the firms and their products and services. Customer loyalty can be achieved through a successful CRM implementation, as CRM helps business in the process of creating long-term relationships with their consumers.

Figure 1. The Effects of CRM on Customer Satisfaction and Customer Loyalty



Source: (Shaon & Rahman, 2015, p. 321).

The Figure 1 shows the effects of CRM on customer satisfaction and customer loyalty. As it presented below, there are different CRM factors such as reliability, customization, customer attraction, customer retention, IT, responsiveness, customer orientations and commitment. All these factors influence on management and customer relationship. If the factors are used in an appropriate way with well-thinking strategy the customer will be satisfied. Then, when the level of the satisfaction is very high, customer start to trust a particular company, buy their products and services, just create customer loyalty.

CRM helps to render the greater number of customers loyal. Thanks to gathered information from different sources, the level of loyalty can be observed by the frequency of visits website, buying behaviours, needs, and expectations (Koçoğlu & Kirmaci, 2012, pp. 282-291). Today, it is much easier for consumers to find products or services which are interested in. Before choosing a given brand, customers take a look of the price, accessibility, post buy service, newness, innovations, and other additional services. It is easy to observe such a situation in which customers' loyalty to the products or services decreasing, when in the same time the alternatives increasing. This is the simplest reason for importance of the customer satisfaction and customer loyalty. It is happened because of the fact that the clients have almost infinite offers with products and services. Different companies compete with each other within the level of price, extended warranty, additional services and so on. Thus, it is so important to know the customers and their expectations as much as the company can and render customers more loyal. Only in that way, the company is able to prepare such a product or service that interested future customers.

4. The analysis of the impact of the CRM on the customer satisfaction

The main aim of this paper is the presentation the complexity of the CRM together with the potential of it in each companies, no matter how big it is, and also they influence on the customer satisfaction. The materials used for the analysis were gathered throw the online survey. The main tool of research was a questionnaire, which was completed by different respondents on the internet platform.

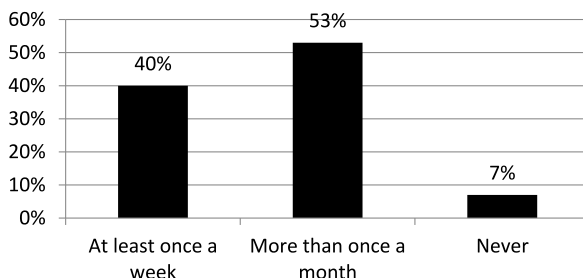
During the research was completed 30 questionnaires. The study involved 30 people: 16 women and 14 men. Respondents are divided into four age groups: from 18 to 25, 26-40, from 41 to 55, 60 and more.

It is commonly believed that men cope better with computers, the Internet and discovering the virtual world. It turns out, however, that online shopping – just like in the real world – is dominated by women. On the basis of conducted survey there can observed that as many as 53% of women do online shops. Nevertheless, the group of men (47%) is also big. It means that both women and men want to save their time and just buy online.

When it comes to the age, more than 40% of respondents are aged 26-40. It is easy to observed that also respondents aged 41-55 are eager to do online shopping. The smallest group consists of elderly people, who cannot be able to handle the Internet as fast as younger people. Very often, elderly people ask for help while doing online shopping, especially grandchildren or someone from the family. Nevertheless, more and more elderly people buy via the Internet. One of the important fact that can influence on it is door-to-door delivery, which can be a great advantage for people living far away from the city. It is also difficult to expect that young people between 18-25 years old have enough money to buy a lot, not only online but also in real.

The next questions presented below are connected with the online shopping. The main aim for those questions is examination of the frequency of online purchase, attitude of the buyers, factors affecting the purchasing decision and impact of CRM on the customer satisfaction (Fig. 2, 3).

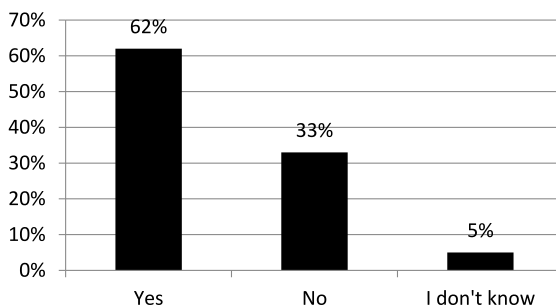
Figure 2. How often do you buy products over the Internet?



Source: own study.

Considering the question “How often do you buy products over the Internet?” (Fig. 3) the biggest group of respondents answered more than once a month (53%). The difference between answer: at least once a week and more than once a month is not so big as it may seem. The smallest group of respondents answered never (7%), but this group also exists. It indicates that online shopping in Poland becomes more and more popular, but still some group of people do not use this form of shopping. They prefer traditional shopping with ability to see the product before buying.

Figure 3. Do you issue a comment about purchased products in store or online auction after purchase?



Source: own study.

Analysing the above question (Fig. 3) – most of the respondents answered “yes” (62%). It means that opinions from buyers are not only important for the other customers but also have a significant impact on the online store. The positive opinion is a good marketing tool, as it can inspire the confidence of other buyers, as well as recommendations from friends or acquaintances. Consumers are more likely to choose stores that have a good reputation in the network. Additionally, important for the store are also opinions on the quality of service. Consumers expect an efficient and rapid implementation of the order. Positive opinions provide high-quality services. Satisfied consumer becomes not only a regular customer, but happy to recommend the store to others. Many customers choose to describe positive experiences on the Internet, arguing for purchases of other users.

Simultaneously, considering the question “Do comments about products posted by other customers influence on your future decisions of buying a product?”, the answers which were given by respondents in 78% pointed how big influence on purchasing decisions has other buyers opinions. A large number of negative comments (22%) exposes the weaknesses of the online stores: the sales process, the level of service or quality of the products. Together with opinions received from customers, sellers receives also feedbacks on the functioning of an online store. Many online retailers systematically analyse customer comments and take them into account when implementing new functionality. Additionally, for several years the value of online reviews is increasing. Thus, if a potential customer finds negative opinions on the desired product, he or she can be effectively discouraged to buy. Unfortunately, many e-shops underestimates the strength of anonymous comments, but on the other hand they do not have influence on this situation.

In respondents opinion the most important factors which are essential during online shopping are price (42%) and quality (31%). These are one of the most mentioned features also during traditional shopping. For 12% respondents the Internet service quality is also important. Surprisingly, delivery time is not so important as it may seem (10%). Nowadays, the customer has a lot of form of delivery, so it is so much easier to adjust it to his or her individual requirements. Adjusting the offer to individual needs is the least important for the respondents (5%). It is just means that within the Internet, customer has a lot of different offer so, he or she can choose which offer suit the best.

Analysing the question about level of the customer service (knowledge, competence, politeness, interest in solving problems, complaint) significant group of customers say “yes”. It could mean that when some problems or questions occur, they are immediately explained with the customers. Only 12% of respondents say that they are not satisfied with the level of customer service during they contacts with the chosen company.

When it comes to the response time to inquiries and orders – the customers are satisfied with it (91%). The companies tries to answer the questions and solve the problems as soon as possible. The customer has constant access to the history of the order at each level. Considering the 7% of answer “No”, the most probable scenario is that this situation regard in large part to the clients, who ask for something very early or lately, or just without need.

Similarly to the previous question, most of the customers are satisfied with the support service and received information. Almost 90% think that received information from service support is technical and helpful when they needed them. Only 9% think differently. However, in many cases the clients are very stubborn or just do something immediately, right now, so some confusions may occur.

Considering the last question (Do you plan to use the online store in the future?), 69% of respondents answer “yes” answer. It means, that the companies try to react on the changing market and customers’ needs. All small things such as quick answer, support service, warranty and so on show that the customer is important for the company. In this way, the customer will remember the company, thus he or she will be returned to it, and – what’s more – recommend the company to others.

5. Conclusion

The above analysis has shown that more and more people do online shopping. As it can be seen, E-commerce is a rapidly growing market. Consumers are mostly wealthy individuals, young and well-educated. People more eager buy online mainly due to availability 24/7, door-to-door delivery, attractive prices, possibility of comparison of different offers, and bigger selection. Nevertheless, online shopping includes a lot of different aspects which should be constantly observe and adjust to the changing market and customers' requirements. One of the biggest mistake of online shops is taking a neutral attitude towards the customer who is not fully convinced to additional purchases. Still only a small number of online stores take such a test, but those who are breaking thanks to the small steps rebuild customer confidence.

It could be said that CRM is the most efficient approach in maintaining and creating relationships with customers. CRM is not only pure business but also creation of strong personal bonding within people. Thanks to development of this bonding, it is much easy for the organization to identify the actual needs of customers and to serve them in a better way. Besides, the online companies should put more emphasis in the two elements which are behaviour of employees and relationship development.

Bibliography

1. Brige, A. (2006). Building Relationship with Customers by Using Technological Solutions in Commercial Banks of Latvia. *Baltic Journal of Management*, 1(1), 24-33.
2. DuBravac, S. (2015). *Digital Destiny: How the New Age of Data Will Transform the Way We Work, Live, and Communicate*. Washington CD, NY: Regnery Publishing.
3. Dyche, J. (2001). *The CRM Handbook: A Business Guide to Customer Relationship Management*. Boston: Addison-Wesley.
4. Fjermestad, J., & Romano, N.C., Jr. (2003). Electronic Customer Relationship Management: Revisiting the General Principles of Usability and Resistance – An Integrative Implementation Framework. *Business Process Management Journal*, 9(5), 572-591.
5. Franklin, T. (2014). *CRM And The Internet Of Things*. Retrieved on 06/05/2017, from: <https://www.crmswitch.com/crm-industry/crm-and-the-internet-of-things/>.
6. *Internet of Things (IoT)* (2017). Retrieved on 06/05/2017, from: <http://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT>.
7. Kamrul, I.S., & Rahman, S.M. (2015). A Theoretical Review Of CRM Effects On Customer Satisfaction And Loyalty. *Prague Economic Papers*, 4(1), 23-36.
8. Keaveney, S.M. (1995). Customer Switching Behavior in Service Industries: An Exploratory Study. *The Journal of Marketing*, 59, 71-82.
9. Kennedy, A., & Coughlan, J. (2006). Online Portals: An Option for Traditional Retailers? *International Journal of Retailing and Distribution Management*, 34(7), 516-528.
10. Kennedy, A. (2006). Electronic Customer Relationship Management (E-CRM): Opportunities And Challenges in a Digital World. *Irish Marketing Review*, 18(1&2), 58-69.
11. Koçoğlu, D., & Kirmaci, S. (2012). Customer Relationship Management and Customer Loyalty. A Survey in the Sector of Banking. *International Journal of Business and Social Science*, 3(3), 282-291.

12. Kotorov, R.P. (2002). Ubiquitous Organization: Organizational Design for e-CRM. *Business Process Management Journal*, 8(3), 218-232.
13. Krishnamoorthy, V., & Srinivasan, R. (2013). Impact of Customer Relationship Management on Loyalty in Indian Banking Sector-An Empirical Study. *International Monthly Refereed Journal of Research In Management and Technology*, 2, 151-161.
14. Mahajan, R.K. (2015). Electronic Customer Relationship Management: Opportunities and Challenges in a Digital World. *Pezzottaite Journals*, 4(2), 1548-1550.
15. Rahman, M.H., Redwanuzzaman, M., Masud-Ul-Hasan, M., & Rahman, M.A. (2014). Factors Affecting Customer Satisfaction on Grameen Phone Users in Bangladesh. *Global Journal of Management and Business Research*, 14(3), 57-66.
16. Scullin, S., Fjermestad, J., & Romano, N.C. (2004). E-relationship Marketing: Changes in Traditional Marketing as an Outcome of Electronic Customer Relationship Management. *The Journal of Enterprise Information Management*, 17(6), 410-415.
17. Shan, L.P., & Lee, J. (2006). Using e-CRM for a Unified View of the Customer. *Communications of The ACM*, 46(4), 95-99.
18. Sheth J.N., Parvatiyar A., & Shainesh, G. (2000). *Customer Relationship Management: Emerging Concepts, Tools and Applications*. Tata McGraw-Hill.

Chapter 28

Strategic Management and Advanced Marketing 4.0

Werner Fees, Lutz H. Schminke

1. Industry 4.0: The 4th Industrial Revolution

Radical breakthroughs in business and economy have already taken place in the past. The first industrial revolution happened at the end of the 18th century: water- and steam-power was used to operate machines. The second transformation took place around 1870, when the first assembly line was used, driven by electric energy. This was the starting point for mass production. At the beginning of the 1970s the next quantum leap happened: the third industrial revolution arose from the development of electronics and information technology ending in automation technology.

In the year 2012 the term Industry 4.0 was created in Germany. German government introduced this wording (Platform Industry 4.0), highlighting the digital transformation. Other buzz words are Digitalisation or Internet of Things IoT.

This 4th industrial revolution is characterized by Cyber-Physical-Systems, consisting of interconnected equipment, machinery and movable objects that transfer information and data through IT and the Internet. The “technological foundation is provided by intelligent, digitally networked systems that will make largely self-managing production processes possible” and “production and logistics processes are integrated intelligently across company boundaries to make manufacturing more efficient and flexible”. Additionally, value-creation chains will become smart and enable producers to monitor products throughout all phases of their life cycles (German Federal Ministry for Economic Affairs and Energy).

Research and implementation programs concerning the 4th industrial revolution are nowadays dominating discussions worldwide in the political, economic and also in the social area.

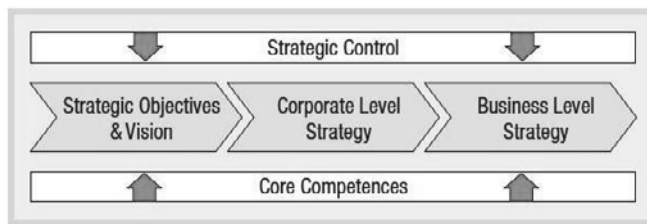
Meanwhile there exists plenty of literature with regard to the 4th revolution. However, most or nearly all of these articles are discussing technical, especially IT issues. In this article, we are focusing on a business perspective. The question is how far Strategic Management and Advanced Marketing concepts are influenced by the digital transformation, and which new aspects have to be considered in order to gain benefits and to achieve an advantageous position for a company.

2. Strategic Management 4.0

“Some have suggested that the internet of things “changes everything”, but that is a dangerous oversimplification. As with the internet itself smart, connected products reflect a whole new set of technological possibilities that have emerged. But the rules of competition and competitive advantage remain the same. Navigating the world of smart, connected products requires that companies understand these rules better than ever” (Porter & Heppelmann, 2014).

Porter and Heppelman (2014) analyze how smart products are transforming companies and competition. On a general level, they also question the implications for strategy. They conclude that the rules of competition remain the same, but managers have to understand the rules of new business models. As a consequence, they have to think about a new strategic orientation for the company. So the main elements of Strategic Management have to be analyzed for revolutionary impacts.

Figure 1. Strategic Management Process



Source: own creation.

2.1. Strategic objectives and vision

Strategic objectives and vision statements are concerned with the aspired future state of an organization. Questions to be answered are:

- What do we want to achieve?
- What business are we in?
- How do we make a difference?
- Why are we doing this?

Due to the high uncertainty about the consequences of the digital transformation for a certain industry it is quite difficult to formulate a precise definition of a company's future target position. All of the four questions may be answered completely differently compared to the current objectives. Before a premature new positioning towards digitalization a due diligence is necessary, forecasting expected developments on macro- (e.g. based on a PESTEL-analysis) and micro-level (e.g. based on a 5-forces analysis). Based upon an objective assessment of the external challenges and of the internal requirements it has to be analyzed if the company is able to build up the necessary capabilities for moving into a new (revolutionary) position.

A new setup of the company can lead to existential challenges:

- E.g. moving from a production oriented company with long tradition into a service-oriented firm, making business not mainly through physical products but through IT-based services from usage of big data.

- E.g. moving from an independent company towards being a part of a horizontally and vertically integrated value creation network, meaning that the freedom of decision-making is reduced to a minimum.

Those radical changes are not only an issue of hard facts, but they require a change in the overall business culture of the organization. Due to possible business myopia the new positioning process can hardly be done by the “old” organization. Proven external experts should be used to overcome the psychological limitations through orientation towards the past, leading to the unlearning of the dominant logic. Modern methods like future and trend research, design thinking, co-creation and scenario technics should be used (Hasso-Plattner-Institute).

2.2. Corporate level strategy

Strategic decisions at corporate level focus on the question:

“What sort of business should we be in?”

Based on the assumption of a fundamental orientation towards digitalization the corporate strategy has to state more precisely in which business segments the company wants to invest. The usage of creativity methods like design thinking and co-creation is recommended. Moreover, a systematic innovation management process should be employed. In order to open the search field also an Open Innovation approach can help to overcome internal barriers and blindness.

At a corporate level it should also be analyzed if existing or future gaps can be closed through cooperation or merger & acquisitions.

It should not be forgotten that the move towards completely new business segments represents an “(un-)related diversification”, which is very often connected with a huge risk. A similar warning comes from the use of the Boston-Consulting-Portfolio: here the entry into a new market with high growth rate and low relative market share stands for a position in the so-called “Question-Mark” field, which is combined with very high investments, a bad position on the experience curve, and therefore a tremendous risk of losing huge cash flows.

2.3. Business level strategy

Strategic decisions at a Business Level have to deal with the question:

“How to compete in a particular Product-Market-Segment?”

Main elements in the creation of a business strategy are first the precise definition of the targeted markets/customers and the product/service – or better the “value” – which is delivered to the customer. Second it must be very clear, why customers should prefer our product, and not the products of competitors, i.e. there should be a significant and sustainable competitive advantage.

Defining the product-market concept requires a systematic market analysis, resulting in the definition of Key Success Factors, which are building the benchmark for the evaluation of the company’s strengths and weaknesses compared to competitors. The process of digital transformation is influencing the methodologies of market analysis, as well as the procedures for internal analysis and strategy formulation.

Analyzing the market will be supported by new digital technologies. The systematic evaluation of huge and complex data volumes is providing insights, which have never existed before. But

it is not only the volume: it is also the high velocity (real-time processing) and high-variety (not only well-structured transactional data, but also unstructured behavioral data) that turn Big Data-Technology into a revolutionary research tool. By means of “Advanced Analytics” it will be possible to analyze behavioral patterns of customers and to provide tailored value propositions. In this way very detailed market segmentation can be made. In the extreme case each customer is handled as an individual market segment. Through cloud-based customer-relationship-management a direct, real time contact can be created with all customers. The basic concepts for assessing the attractiveness of market segments will be unchanged: Porter’s five forces have to be used as before. However, the contents of the investigations will be very different, e.g. new supply chains, service offerings, and platform strategies. After all the key success factors – which may show a revolutionary shape – have to be identified.

The internal analysis of the companies is interdepending with the strategy formulation: the value chain has to be analyzed and restructured along with the options of the generic strategy:

- Adaptation vs. New Game?
- Cost Leadership vs. Differentiation?
- Niche vs. Full scope?

Adaptation means finding the optimum position in a given industry structure (which could also be digital). New Game means the creation of a new industry structure with new rules and new key success factors. This way in particular represents the chances-and threads- of new strategies coming along with the industrial revolution.

Changing the rules – that’s exactly what the protagonists of the digital transformation are trying. Most famous examples are uber or airbnb. Business history shows that these strategies are often very successful, e.g. in the case of IKEA, introducing a new way of doing business 50 years ago. However, the example shows also that despite IKEAs triumph also companies with traditional strategies survived within their “old-fashioned” market. The same is true for areas like bookselling, travel agencies etc. One could assume that there will also be survival strategies outside the new digital world.

The decision between Cost Leadership and Differentiation is heavily influenced by digitalization. Surveys with managers show enormous expectations with regard to higher efficiency and productivity, based on faster time-to-market, cost reductions, additional sales, higher quality etc. Besides potential for cost reductions digitalization provides significant opportunities for differentiation. Unique value propositions are often combined with new business models. Industry 4.0-models are typically associated with service offerings, e.g. Value-as-a-Service (offering an added value proposition), Modules-as-a-Service (providing hardware or software units for implementing the value proposition), Platform-as-a-Service (cloud based computer environment to support App development and usage), and Infrastructure-as-a-Service (providing infrastructure for platforms and modules).

Differentiation and cost reduction potentials based on digitalization can be found in nearly all activities of the value chain, but also in linkages with value chains of other companies. In the extreme case the company no longer relies on its own value chain, but on a value network, which includes a vertical and horizontal integration of a plenty of companies.

The creation of new business models can be done using the Canvas model (Osterwalder & Pigneur, 2002): Nine blocks are taken to identify the key activities of a company: customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships and cost structure.

Digitalization has an impact on and is able to change all of them. However, the change is mostly of an improving nature, rather than radically disrupting the individual building block. It is difficult

to identify a building block that has the most disruptive influence on a business model. It can be assumed that the building block “key partnership” has vast potential of influencing company activities. Entering into strategic alliances to defend market shares, creating competitions and channeling research activities in joint ventures might become essential to stay competitive and flexible in a rapidly changing business environment. Saying digitalization mostly just improves processes or building blocks does not necessarily lead to the conclusion that it is not possible to radically influence the business model as a whole. New combinations of building blocks that lead to new business models can be a result of the improvements.

Porter states that there must be a clear decision: either differentiation or cost leadership, otherwise you are “stuck in the middle”. Digitalization may change this rule: due to possibilities of mass customization Hybrid Strategies are possible, combining individualization with low costs.

Last not least: Niche vs. Full Scope. Using digitalization is expensive, needs enhanced resources and broad competences. For a stand-alone niche company it will be hard to compete on this base. Nevertheless, it is possible for a niche firm to market a narrow product- or service-line with a high volume, e.g. based on online channels.

A way to compete against full-scope competitors is also to enter a value network with a big number of partners.

2.4. Core competencies

Core competencies are the company’s collective knowledge about how to coordinate diverse production skills and technologies, based on collective learning in the organization.

It was mentioned before that a revolution might need to unlearn the traditional dominant logic. I.e. core competencies of the past may be no longer relevant, if the company moves to a new business model. Before giving up historically grown core competencies one should seriously check if this revolution is really necessary. Building up new competencies, which are probably extremely different, is a highly risky path and takes a long time.

2.5. Strategic control

Besides the classical feedback control, measuring the realization of planned targets, a strategic control is needed, analyzing the validity of the strategic plan itself. In this way it tries to compensate the selectivity and uncertainty of strategic planning (double loop learning). Strategic control should be viewed as a counterbalancing activity to strategic planning and question of whether or not the strategic plans are still valid should be asked continuously.

Going through an industrial revolution means an extreme degree of complexity and uncertainty. So, implementing a strategic control system seems to be as important as the implementation of the strategy itself.

The system of strategic control should comprise three steps:

- Premise control: are the assumptions of the chosen strategy still valid?
- Implementation control: is implementation proceeding as planned or should the whole course of action be changed in the light of past events?

Going along with this is the increased velocity and reach of communication. New media and improved applications are available; especially Social Media will have a big impact with buzz words like Content Marketing and Viral Marketing. In some cases, there are different rules: especially regarding: who controls communication? In Social Media, companies (or other senders) have to consider the loss of control about information; all users can generate content. Organizations are a part or member of the communities and networks; they have to earn respect and confidence.

Different categories of Social Media can be distinguished. A differentiation in communication (e.g. Blogs, Twitter), sharing (e.g. YouTube, Instagram; including wikis) and social networks (e.g. Facebook, Xing, LinkedIn) is useful. With media in different categories, different objectives can be achieved. Those earned media are competing concerning budgets with other media categories like owned media (e.g. the homepage of a company) and paid media (e.g. advertising in TV and Print; but also online media like banner ads). Depending on the communication objectives, a meaningful mix between those categories and the choice of the right social media is the issue.

Going along with 4.0 there are new alliances and co-operations.

3.1. Specific areas of interest

Based on the availability of data, which is gathered along all touch points Customer Relationship Management CRM will get an enormous push. Information about customers from internal and external sources will be used for an increased individualization and personalization of communication between companies and their customers. This One on One Approach is forced by the application of improved instruments and media of communication in Print, Telephone and Online.

There is an opportunity for local-based services. Passing by an outlet of a company the customer can get an individual special offer in conjunction with a personalized coupon (via Bluetooth technology). Today it is very common to use Smart Phones, so Mobile Marketing and Online Marketing have become similar.

Automated recommendation systems for individualized suggestions for additional purchases (as it is practice already at Amazon) will become usual. This possibly in conjunction with predictive shipping, based on expected orders by specific customers to optimize the supply chain. May be predictive production will be possible at the end of the road.

A better and deeper understanding of customers (especially consumers) is a result of analyzing the Customer Journey and Customer Experience. A detailed analysis of relevant touch points in the online area seems to be relatively easy applying available instruments. The challenge is to integrate offline touch points as well. This is possible by using response codes or very popular QR codes. The overall objective is to get customer or Consumer Insight. This is the platform to understand customer's behavior and to deliver the right Marketing impulses in time.

By analyzing data, it is possible to model certain customer types and to use this as a basis for cross- and up-selling.

In addition, this modelling is helpful for new customer acquisition. On the one hand the company knows what the new customer should look like, on the other hand analysing (public) available data, it allows profiling a prospective customer. This method – Micro Targeting might be combined with modelling of customer types.

All in all Direct Marketing, which has become Dialogue Marketing might be called Databased or Data driven Marketing in future.

The availability of data has a big impact on Market Research as well. Opportunities are great and challenges are similar. Market research institutes will have to complement their existing toolset by appropriate methods in the online area, which is a complex issue.

3.2. Impact on the Marketing-Mix

3.2.1. Product

Concerning Product there is an impact on new product development. Via Crowd Sourcing Web 2.0 is the platform to use the Crowd Intelligence for new product development as a specific form of Open Innovation. Within open innovation the process of new product development is based not only on internal sources, but also various external sources are integrated.

Using the interactive Web Mass Customization has become reality. Consumers can design their own sports shoe at Adidas or Nike. At Dell and car manufacturers, customers can tailor their individual models. Based on data out of performance tracking and user profiles a product configurator can recommend individualized products for customers including appropriate value added services.

Having new technology available might have an impact on the entire business system. Video leasing shops became obsolete by video on demand. Instead of CDs and DVDs, we have online streaming of music.

3.2.2. Price

Concerning price there is a higher degree of price flexibility using online media (e.g. e-commerce) compared to the traditional mail order business based on printed catalogues. Besides this flexibility to set up prices on a daily basis, there is the opportunity for a high variety in discounts and the issuing of individualized coupons. Couponing has achieved a higher level of sophistication using online media.

At the end individualized pricing, which is quite common in B2B, might be feasible in B2C as well.

3.2.3. Place

The web based distribution channel E-Commerce has recently become available. This is a big area to grow as a single distribution channel, as an additional distribution channel – on the way to multi-channel distribution – or as an alternative distribution channel. Especially in retail, we can observe a strong shift from brick and mortar (local) shops to online sales. Recent developments are relevant for the grocery industry. Supermarkets and discounters will have to compete with online distributors. Amazon is entering the market at this time.

Established businesses have to consider adding this new distribution channel. This issue is very closely related to shipping and delivery, where digitalization and automatization are changing the rules as well.

Regarding Sales or Personal Selling the higher availability of data will have a positive impact on the Sales Funnel and the process of the sales conversation. More information leads to better

preparation, to more detailed argumentation and to a higher degree of automatization. Other aspects like modelling have been already mentioned.

The Sales Funnel describes the process of targeting in sales. Starting with the entire universe of prospects through screening and analytical methods this is a systematic way to identify prospects with a high probability of becoming a customer. This enables concentration of forces and focus on hot targets and holdouts. Dividing a sales conversation into different phases provides a certain logic and it is helpful to concentrate in different phases on specific aspects (preparation, appointment, small talk, need identification, value story, discussion of concerns, closing the deal, follow-up contact are common differentiations).

In the Internet world Affiliate Marketing as a form of distribution is quite common. Companies all placing advertising on the webpages of other institutions and organizations preferred with high traffic. This additional touch point is hyperlinked with the homepage of the company. If a sale is generated through this contact, the partner company gets a fee. Affiliate marketing provides an increasing reach of the distribution network.

3.2.4. Promotion

Some major impacts in the field of Promotion or communication (especially CRM) and the trend to 1:1 communication has already been mentioned. New media are available for communication, going along with a new perspective on and categorization of media. Other new phenomena are real time communication and the symmetry of communication. Real-time communication happens, when sender and receiver are online at the same time and having a chat for example. Symmetry of communication stands for a similar level of information. Having access to information both sides the sender and the receiver (company and customer) have the opportunity for a similar or an increased informational background.

Using especially Social Media there are no media cost, which is a big advantage for companies (and other users). On the other hand, to be present, to deliver and to monitor the information flow, personnel is necessary along with cost for human resources. Maybe artificial intelligence in combination with machine to machine M2M communication we will overcome this situation.

A major activity in the online word is Search Engine Marketing SEM. On the one hand, we have Search Engine Optimization SEO. Companies try to configure the content of their home and landing pages according to the (estimated) search algorithms of search engines like Google etc.; which is an ongoing challenge. There is a risk of violating rules (cloaking), with possible negative consequences (temporary banning).

Due to various aspects Search Engine Advertising SEA (e.g. Google ad words) is becoming more popular. The (paid) links of companies will be listed, when a user is looking for specific keyword. This goes along with highly sophisticated targeting mechanism being offered by the search engines. There is an expectation of a higher reach to the target audience by the company doing paid advertising.

Various meaningful payment models are in place (e.g. price per click, real-time bidding) which allow companies to be present and to control their budgets. On the negative side: ad blockers – software packages – are available and used by an increasing number of users, to suppress advertising messages.

Another way of paid communication is Influencer Marketing. This is a specific form of digital Word of Mouth WOM Communication. Companies are paying so called influencers in the Internet

hemisphere for positive recommendations. Those mechanisms are working quite well and becoming more popular.

3.2.5. Service Marketing

Enlarging the perspective to Service Marketing with additional three P's, we look to People, Presentation (physical evidence) and Process.

Concerning People there is a challenge of new job profiles appearing with increased digitalization. These have an impact on selecting, training and motivating employees, especially those who have direct contact with the customer in service and sales.

In the area of Presentation, there are new opportunities – not only in Service Marketing – through technical devices like Augmented Reality and Virtual Reality.

Augmented Reality is the mechanism, being in the real world and providing additional information through various access mechanism to the virtual world – the Internet. This enables companies to enrich the presentation opportunities for services and products. For example, how a new piece of furniture will look like in the living room of the customer can be configured.

Virtual Reality stands for the process of providing visual access to another world by using technical devices. With virtual reality glasses in the higher end version or putting a smartphone in a specific holder, the customer can see and imagine another world.

Finally, Process, blueprints how services are created or products are delivered or monitored, can be subject of automation, Machine to Machine M2M communication or even robotic.

4. Conclusion

Digitization and Internet Connectivity will be a part our future (business) life and will influence the management of companies. New approaches and methods will complete the existing set of strategies and tools. There is a realistic estimation on increasing speed and acceptance. This is not only for Strategic Management and Advanced Marketing.

A meaningful implementation process and good roadmap for implementation seems to be essential for big companies as well as for SME. One issue might be: do I have to redefine my business or create an entirely new one? Uber and Airbnb are good examples for highly innovative approaches; service companies without any assets.

Different or new management styles might be required; do we need Digital Leaders? What will be the impact on KSF and KPI? With highly integrated business processes there will be new relationships with our business partners.

Google, Facebook, telecommunication companies and others will accelerate data collection and strategic co-operations and alliances.

Nearly all industries will be affected: production by automation and connectivity, distribution and logistics will become digital as well and will use robots and automated, autonomous driving or flying machines. Retail is affected not only by e-commerce, the payment at the cash register will turn in a data collection process.

What will be the future of Smart Fridges, Smart Homes or Smart Cities? How will science be affected? What will be the impact on the Knowledge Management within a company, business and the society?

Bibliography

1. Binckebanck, L., & Elste, R. (2016). *Digitalisation in Sales – Strategies to Apply New Technologies in Sales Organisations*.
2. Brenner, W., & Hess, T. (2014). Business Informatics. [in:] *Science and Practise*.
3. Johnson, G., Whittington, R., & Angwin, D. (2014). *Exploring Strategy*.
4. Kotler, P. (2017). *Marketing 4.0*.
5. Kreutzer, R.T. (2016). *Online Marketing*.
6. Porter, M., & Heppelmann, J. (2014). How Smart, Connected Products are Transforming Competition. *Harvard Business Review*, 92(11), 64-88.
7. Rossa, P., & Holland, H. (2014). Big-Data-Marketing-Opportunities and Challenges for Companies. [in:] H. Holland (Ed.), *Digital Dialogue Marketing*.

Chapter 29

The Issue of Trust in the Concept of Socially Responsible Consumption. The Outline of the Problem¹

Grażyna Plichta

1. Introduction

Consumers make their purchasing decisions conditional on various information about the goods they are interested in. We can observe that more and more often they attach importance to information about the conditions in which the goods were produced and consider ethical standards in the process of their manufacturing. This type of socially responsible behaviours with regard to transactions concluded on the market are related to a dynamically developing phenomenon of Socially Responsible Consumption. Responsible consumption also means ensuring that needs are met adequately to their scale. Food is an example of a good which numerous consumers cannot manage in a responsible way. Social responsibility within that scope can consist in aiming at a decrease in the amount of wasted food and a more aware approach to buying food goods.

The factor of trust is the basis of conscious consumption. We can adopt the thesis that in the situation of uncertainty and perceived risk, the lack or too low level of trust directly affects decisions taken on the market by consumers.

It should be emphasised that trust plays a special role when a purchasing decision concerns food products which were produced as a result of genetic modifications. In spite of the lack of univocal evidence for their harmfulness, they arouse a number of controversies as for their impact on consumers' health. Consumers notice a risk related to the purchase of genetically

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modified food. The risk often arises from ambiguous messages concerning the manufacturing process (e.g. ingredients included) or conditions in which they are produced, and may be negatively correlated with the acceptance and a wish to buy those products. So-called effective risk communication may be the means to limit the perceived risk. Active (preventive) communication contributes to the growth of trust, whereas late (retroactive) communication decreases this trust. In Europe (also in Poland) risk communication is hindered by distrust to achievements of genetic engineering and relatively scarce trust to organisations and institutions which exercise supervision and control in this area. A special role in proper risk communication is played by a substantial dimension of trust, namely transparency. Actions consisting, among others, in placing transparent information about the presence of genetically modified ingredients on product labels may limit distrust. A consumer having reliable information about, among other things, the amount of such modified ingredients in the product, their origin and the method and place of manufacturing the product is able to make a conscious choice/purchase, and the institution which is the source of information will not inspire distrust.

The paper presents problems concerning the social dimension of consumption and attempts to show the role of trust in the process of purchasing genetically modified products. In order to show the issue thoroughly, a survey was conducted, as a result of which empirical data were obtained which were subject to adequate analytical procedures. The analysis of the obtained results was conducted with the use of factor analysis.

2. Socially responsible consumption versus trust to genetically modified food – the outline of the problem

Responsible consumer behaviours with regard to transactions concluded on the market are identified, among others, with purchasing decisions which consider consequences brought by the production, use and disposal of products. Activities undertaken by consumers, consisting in a conscious boycott of products and firms violating ethical, environmental or social standards are an effect of the adopted attitude which arises from the possessed knowledge in respect of the significance of such actions. Responsible actions undertaken by consumers mean simultaneous care about the environmental, economic and social dimension on the individual level and with regard to the whole society. Successive education, dissemination of knowledge and activities consisting in propagating good habits influence the consolidation of consumers' belief that consumption has a social dimension and it is important for it to be responsible.

Responsible consumers are often identified with people who are ethically sensitive, concerned about the natural environment and interested in healthy food. The responsible social attitude of consumers understood in this way has a special dimension in the case of making decisions about buying food which was produced with the use of modern biotechnology, namely transgenic food products. In Poland, social acceptance for this type of products is not high and despite the lack of reliable data on threats arising from their use and univocal evidence for their harmfulness, they arouse a lot of controversies in consumers. Consumers notice risk connected

with the purchase of genetically modified food products². According to the research conducted by the Centre for Public Opinion Research (Centrum Badania Opinii Społecznej – CBOS), the Poles display a lot of distrust to the achievements of genetic engineering³. The negative attitude of respondents to genetically modified products or those including genetically modified organisms is confirmed with respondents' declarations concerning purchasing decisions if they had a choice between a much cheaper genetically modified product or the one including modified organisms and a much more expensive product but not modified and not including genetically modified organisms. A great majority of respondents, namely 72%, when having a choice, are inclined to buy a product which would be not genetically modified and not including GMO, even if it were much more expensive than the product including GMO. It should be emphasised that almost half of respondents (49%) were explicit about it. Moreover, as a result of statistical analyses conducted (Test T, ANOVA), it was found out that respondents' declarations were not influenced by their social status, including material status, but by their beliefs only – religiosity measured by the frequency of religious practices, as well as their opinions on the impact of Poland's membership in the EU on the safety of Polish food. It should be emphasised that a possibility of buying food including GMO is most definitely rejected by people convinced about the negative impact of adjusting the EU standards on the safety of food available on the Polish market and their beliefs about possible negative consequences of GMO plant cultivation (CBOS, 2013).

The Polish society is sceptical about the application of modern biotechnology techniques in food production, and year by year the support for the use of biotechnology in the food industry is decreasing (Filimonow & Berger, 2005, pp. 39-41). It seems that one of the reasons of the lack of acceptance of the Polish society for transgenic products is the lack of objective and transparent information about benefits arising from the achievements of biotechnology and possible risks related to the use of genetically modified organisms. It may be also an effect of insufficient dissemination of knowledge about procedures and safety measures used when launching a product. Uncertainty resulting from the lack of knowledge can be minimised in a way, for example by placing a clear list of genetically modified ingredients, information about their amount, origin and the product manufacturing method on products. It should be emphasised that the applicable regulations of law oblige to mark genetically modified food (Act 2001A; Act 2001 B), and consumers' access to information about products is regulated by legal regulations. And the information about the product

² The definition of genetically modified food is included in Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003. According to that legal act, it is “*food and feed consisting of, containing or produced from genetically modified organisms*” (Official Journal of the EC L 268 of 18.10.2003, as amended); The term genetically modified organisms (GMOs) is defined as organisms in which the genetic material has been purposefully altered in a way that does not occur naturally with the use of genetic engineering methods. In the whole European Union (including Poland) there is an obligation to mark GMO products. In the US genetically modified products do not have to have the information that they are modified. In order to launch them to the market it is enough when they are approved by the FDA (Food and Drug Administration). Therefore, one cannot be sure that, e.g. corn or soy from the US which find their way to the European market are not transgenic products.

³ The research carried out by CBOS and entitled: “Aktualne problemy i wydarzenia” (“Current Problems and Events”) (271) from 30 November – 6 December 2012 on a representative random sample of 1,135 adult Polish citizens; CBOS survey report “*Polacy o bezpieczeństwie żywności i GMO*” (“The Poles about Food Safety”), BS/2/2013, Warszawa, January 2013.

a consumer is buying or is going to buy, governed by legal regulations, may influence the limitation of the perceived risk and a decline in uncertainty, yet it will not eliminate them. Risk and uncertainty may be in a way overcome by trust. We can assume that a specific level of consumers' trust may be a factor determining a purchasing decision made by consumers. The presence of trust between an organisation/firm and a consumer during the conclusion of a transaction is significant because the relation between them is characterised by great asymmetry. Most often the organisation has a lot of advantage over a consumer (e.g. the information, financial, technical one). Building trust between those parties is based on the conviction that the advantage will not be used against the weaker party (the consumer). Keeping the above in mind, the issues related to relational (mainly interpersonal) and transactional context of the occurrence of trust come to the fore. According to Hardin, the existence of trust is conditioned by benefits the parties to the exchange are to achieve, but what is most important, they are accepted and treated "as their own" by both parties (Hardin, 2009, p. 26). Such an approach indicates the existence of a relation between the level of the acceptance of the other party's interest and the level of trust to it. According to D. Harrison, L.L. Cummings, N.L. Chervany (1998), trust forms based on the mutual influence of five forces which can be described in five dimensions: personality, calculative, institutional, perceptive and knowledge-based one. In the case referring to a specific transaction, we can talk about independent trust and context dependent trust. In the case of trust independent of the context, an individual "A" assumes that another individual, "B", will behave in a specific way and will perform an action on which A's interest depends, subjectively expected by A. In the other case, trust is a level to which a given individual "A", in a specific situation, with belief in relative safety, is willing to depend on the other individual, "B" (e.g. a person, an organisation, etc.), despite the fact that negative consequences of such dependence are possible (Plichta, 2013). Building trust between the parties to a transaction may be fostered, among others, by the overall attitude of a consumer, a consumer's previous positive experiences, the producer's or the sales person's professionalism, emotional relation between the consumer and the producer or the sales person and the level of legal and institutional protection of the consumer.

3. Trust and purchasing decisions of consumers on the genetically modified food product market in the light of the survey

The presence of trust is substantial when taking every purchasing decision. As it has been already mentioned, it plays a special role when a purchasing decision concerns food manufactured with the use of genetic modifications. We can assume that trust is an important factor influencing the purchase of such products.

An attempt to verify the above statements was made on the basis of the results of a survey which was carried out in Małopolska Province with the use of the direct survey method. Quota sampling considering respondents' gender and age was applied⁴ (the proper survey

⁴ The survey was conducted from May to June 2016. 162 survey questionnaires were obtained which were verified then. It should be emphasised that at the initial stage of the research, the examination of a bigger number of respondents was assumed, however, the limitations which occurred and objective obstacles brought about the necessity to limit the number of respondents.

was preceded by a pilot study). As a result of the conducted survey, a considerable number of data was obtained. When taking a decision about the choice of the method of their analysis, their considerable correlation was taken into account, therefore, factor analysis was chosen. It should be stressed that the application of this method is particularly justified when a researcher is concerned about the reduction of the set of variables strongly correlated to each other to a smaller number of non-correlated factors. An additional premise justifying the purposefulness of its application is the fact that it can be used to present variables in the space of new factors. The factors provide a substantial part of information included in primary variables and at the same time each of them brings new substantive contents. Thus, in addition to the reduction of the number of variables describing a studied problem, the applied method enables to analyse the studied phenomenon from the point of view of new dimensions created by the isolated main factors.

The main aim of the research findings presented in this paper was to obtain information and provide knowledge about the significance of trust when taking decisions on the genetically modified food products market. The measurement of such empirical phenomena usually takes place with the use of a Likert's – like scale which is a series of statements to which a respondent has to assume an attitude by marking answers. In the survey the respondents expressed their opinions on food produced with the use of genetic modifications by marking answers from the provided continuum – from “strongly disagree” to “strongly agree”. The answers were given in a 7-point scale of intensity. The assumption was adopted that such a scale has the status of a metric scale. At the same time it was assumed that a respondent is ready to give his or her opinions on a given subject and his/her opinion is a really existing attitude which is expressed by indicating the adequate position of the scale. As a result of the conducted survey a considerable amount of data was obtained. When taking the decision about choosing the method of their analysis, their considerable correlation was taken into account and that is why factor analysis was chosen. Then, in accordance with subsequent stages of the factor analysis, the collected data were analysed (Churchill, 2002, pp. 805-826; Gatnar & Walesiak, 2004, pp. 186-245; Sagan, 2004, pp. 172-187). To analyse the data, a module of the factor analysis available in the STATISTICA programme, version 10 was used. The method of isolating factors consisted in the principal component analysis of the main components (Morrison, 1990, pp. 393-416). In the factor analysis, including the principal component analysis, a few methods are used to establish the number of factors which should be adopted for a substantive analysis. The most frequently used ones include: the Kaiser-Guttman criterion (WLB), the Cattell scree test, and the “own value higher than one” method. As a result of the application of the “own value higher than one” method, three factors which in total explain 84.39% of the variability of the whole set of output variables were chosen for further analysis (in accordance with the adopted assumption that the factors considered in the analysis should explain at least 80% of variability). In order to obtain a relatively simple structure of factors, enabling a substantive interpretation, a Varimax rotation was used, which enabled the simplification of the structure by the minimisation of the number of variables needed to explain a given factor. The factor loading matrix after the rotation is presented in Table 1.

Table 1. The factor loading matrix (The principal component analysis; Varimax rotation) for the scale of attitudes towards genetically modified food

Adopted marking	Variable	Factor 1 Safety	Factor 2 Optimum composition	Factor 3 Improvement in quality
ŻMG 1	Genetically modified food is safe in trade	0.795344	0.282130	0.266930
ŻMG 2	Genetically modified food is safe for people and the environment	0.885261	0.318817	0.148072
ŻMG 3	No influence of genetically modified food on human genes	0.896882	0.058266	0.190652
ŻMG 4	Genetically modified food is food of better quality	0.291278	0.252054	0.913832
ŻMG 5	Genetically modified food is food of optimum composition	0.135679	0.904856	0.099791
ŻMG 6	Genetically modified food is food of better nutritional values	0.292394	0.725189	0.295229
Explained variance		2.409403	1.592832	1.061732
Share		0.401567	0.265472	0.176955

Source: own study.

Variables with the highest values of loadings in relation to individual factors (bigger than 0.6) were isolated from the factor loading matrix. An analysis was performed with regard to common features of their names, and then they were defined. As a result of the procedure, factor 1 was called “safety”, factor 2 “optimum composition”, and factor 3 “improvement in quality”.

Three variables were qualified in factor 1 (called “safety”):

- No influence of genetically modified food on human genes,
- Genetically modified food is safe for people and the environment,
- Genetically modified food is safe in trade.

Factor 2 (“optimum composition”) is formed by two variables:

- Genetically modified food is food of optimum composition,
- Genetically modified food is food of better nutritional values.

Factor 3 (“improvement in quality”):

- Genetically modified food is food of better quality.

In the next part of the analysis, an attempt was made to isolate groups of respondents homogenous in terms of the attitude towards genetically modified food. For this purpose, *k-means* method was used – the cases were grouped. In the assumption, the method enables maximum similarity of elements within a given cluster, and minimum similarity among the elements belonging to various clusters. The isolated principal components/factors were treated as new grouping variables.

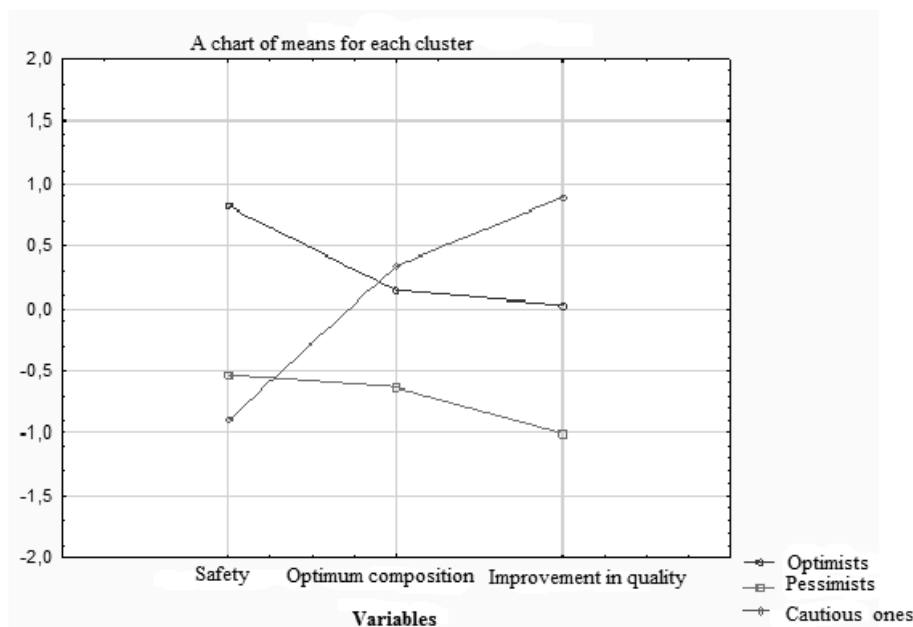
The result of the analysis of variance (F statistic, probability value) prove that the three factors differentiate the obtained clusters (Tab. 2). The chart of mean values for the isolated clusters are presented in Figure 1.

Table 2. The results of the variance analysis obtained for three clusters (k-means **method**)

Variable	Variance analysis					
	Intra-SS	df	Internal SS	df	F	p-value
Factor 1 – Safety	96.74092	2	62.2591	157	121.9768	0.000000
Factor 2 – Optimum composition	22.93100	2	136.0690	157	13.2292	0.000005
Factor 3 – Improvement in quality	76.56299	2	82.4370	157	72.9065	0.000000

Source: own study.

Figure 1. The chart of means obtained for three clusters



Source: own study.

Cluster one was called “Optimists” (47.0% of all respondents). This group achieved high realisation of *safety* variable and *improvement in quality* variable. Keeping in mind the specifications of variables making up individual factors, we can assume that those were people with least sceptical (in comparison with other clusters) attitude towards genetically modified food.

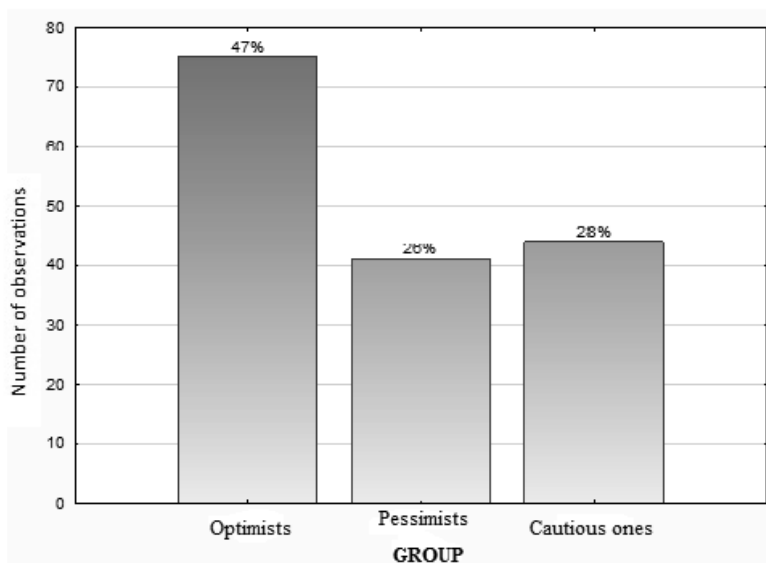
The second group, including 26% respondents, which was called “Pessimists” was made up of people with relatively low realisation of *safety* and *optimum composition* variables, and even lower realisation of *improvement in quality* variable. In their opinion, genetically modified food does not have positive qualities and is not better quality food. We can assume that the cluster was formed by people rejecting in particular positive statements concerning modified food.

The third group, which was called “Cautious ones” (27.5% of the total number of respondents), is characterised by high realisation of *improvement in quality* variable, a little lower level of *optimum composition* variable and definitely low realisation of *safety* variable. According to this group, genetic modifications improve the quality of food, it may have better nutritional values than

functional food, however, one cannot say that it is safe for people and the environment because information about it is insufficient.

The structure of the surveyed group in respect of the percentage share of the isolated clusters is presented in Figure 2.

Figure 2. The structure of the surveyed group considering the isolated homogenous groups

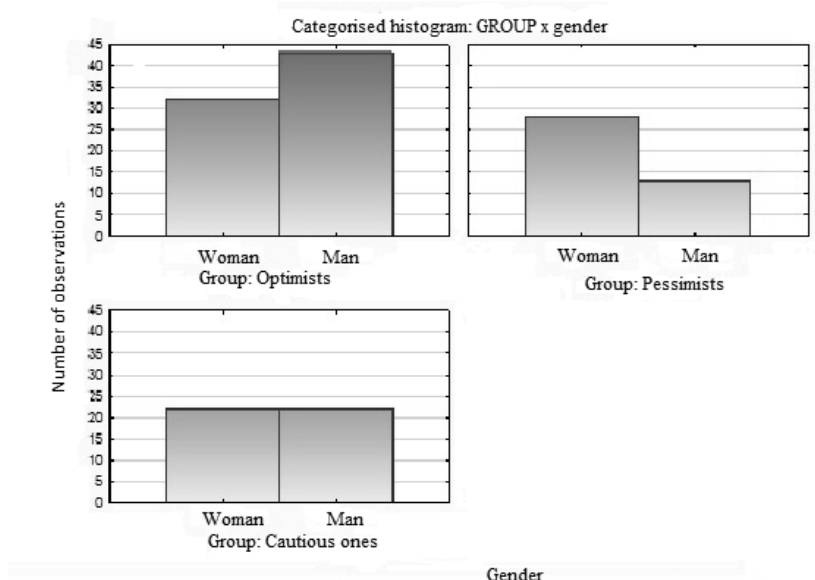


Source: own study.

A demographic variable differentiating the obtained homogenous groups on the statistical significance level $\alpha=0.05$ is gender. In the “*Optimists*” group, namely the respondents least sceptical about genetically modified food, men prevail (43%). Male respondents are more optimistic in their declarations. In the “*Pessimists*” cluster, they are in minority (13%). Among respondents with sceptical attitude to modified food women prevail (28%). They are more “aloof” to possible advantages of such products. On the other hand, in the “*Cautious ones*” cluster, there are equal numbers of the representatives of both sexes. The same group of respondents (regardless of gender) needs more objective information about food produced with the use of genetic modifications (Fig. 3).

Keeping in mind the characteristics of the distinguished homogenous groups with regard to the attitude towards genetically modified food, trust to these products was assessed then in individual groups of respondents. It was found out that trust to food products manufactured with the use of biotechnology is generally not high and probably it is an effect of scarce knowledge of respondents about food modifications. The highest trust to genetically modified food was declared by the respondents called “*Optimists*” (57%), whereas the lowest was found in the “*Pessimists*” cluster (38%). In the homogenous group called “*Cautious ones*”, trust to food produced with the use of genetic modifications was declared only by 40% of respondents, and thus, their opinions differed relatively little from the opinions of respondents who were called “*Pessimists*”.

Figure 3. Gender of respondents versus the membership in individual homogenous groups (clusters)



Source: own study.

4. Conclusion

Social acceptance of products based on transgenic products is rather low. Consumers show a lot of distrust to the achievements of genetic engineering, which translates into low inclination to buy such goods. The conducted survey proves that trust to food products manufactured with the use of biotechnology is not high and it is probably the effect of little knowledge of respondents about food modifications. What results from the research carried out in the EU is that about 53% of the Europeans (that is, more than a half of the studied population) do not trust food products of the new generation. They see the risk related to eating transgenic food and arising from the release of genetically modified organisms to the environment. What may also be the source of the dislike is the attitude of reputable non-governmental organisations, e.g. Greenpeace, according to which the spread of genetically modified products is destructive for the environment (Filomonow & Berger, 2004, pp. 36-38). It seems that one of the reasons for distrust is the lack in so-called public space of objective and transparent information about benefits coming from the achievements of biotechnology and about possible treats and consequences which may occur in the future and which are related to the use of genetically modified organisms. It has unquestionable impact on socially responsible behaviours of consumers, consisting, among others, in conscious attitude to buying food products. It should be emphasised that today ensuring the safety of food products is a priority, and limiting risk and building consumer trust is a common task of European agencies and institutions, international organisations and domestic bodies responsible for health safety.

Bibliography

1. CBOS; Centrum Badania Opinii Społecznej (Centre for Public Opinion Research) (2013). „*Polacy o bezpieczeństwie żywności i GMO*”, BS/2/2013. Warszawa: Foundation of the Centre for Public Opinion Research.
2. Churchill, G.A. (2002). *Badania marketingowe. Podstawy metodologiczne*. Warszawa: PWN.
3. Filimonow, J., & Berger, S. (2004). Genetyka pod społeczną kontrolą. Cz. 2. *Bezpieczeństwo i Higiena Żywności*, 3(5), 36-38.
4. Filimonow, J., & Berger, S. (2005). Możliwości zastosowania GMO w produkcji żywności. *Przemysł spożywczy*, 59(5), 39-41.
5. Gatnar, E., & Walesiak, M. (2004). *Metody statystycznej analizy wielowymiarowej w badaniach marketingowych*. Wrocław: Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu.
6. Hardin, R. (2009). *Zaufanie*. Warszawa: Sic.
7. Harrison, D., McKnight, D., Cummings, L.L., & Chervany, N.L. (1998). Trust. Formation In New Organizational Relationship. *Academy of Management Review*, 3.
8. Morrison, R.F. (1990). *Wielowymiarowa analiza statystyczna*. Warszawa: PWN.
9. Plichta, J., & Plichta, G. (2013). Znaczenie zaufania w handlu elektronicznym – perspektywa instytucjonalna. *Psychologia Ekonomiczna*, (3), 40-51.
10. Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on Genetically Modified Food and Feed (Official Journal of the EC L 268 of 18.10.2003, as Amended).
11. Sagan, A. (2004). *Badania marketingowe. Podstawowe kierunki*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
12. Sztompka, P. (2007). *Zaufanie fundamentem społeczeństwa*. Kraków: Znak.
13. The Act of 11 May 2001 on Health Conditions of Food and Nutrition (2001A). Journal of Laws No. 63, Item 634 as Amended.
14. The Act of 22 June 2001 on Genetically Modified Organisms (2001B). Journal of Laws No. 76, Item 811.

Chapter 30

Actual and Declared Customer Behaviour Toward Functional Food¹

Irena Śliwińska

1. Introduction

Nowadays food producers offer a variety of goods and the awareness of consumers regarding beneficial effects of healthy eating is still growing (Gutkowska et al., 2014, pp. 80-81; Sobczyk, 2014, pp. 93-95). The Internet plays a significant role in this process, as it is used not only as a source of information about proper nutrition but also as a means to exchange knowledge about healthy eating among its users. However, not all the information found on-line is reliable and the declared attitudes do not always reflect purchasing choices made by the consumers.

The aim of this paper is to gain knowledge on consumer declarations on functional foods in terms of perceived benefits and threats associated with its consumption as well as exploring market behaviour towards health aspects. Do the factors such as knowledge of food safety, knowledge of food ingredients, attitudes towards new foods and the awareness about the impact of nutrition on health, have influence on Polish customers' behaviour? Does the change in consumer behaviour result in searching for healthy food and functional food with proven beneficial effects on health?

2. Functional food as a new product for Polish customers

Functional food represents a relatively new category of food in Poland, which is still not widely known among consumers. The concept of functional food appeared in the world literature in the early 1990s and since then many attempts have been made to define it². The most commonly used definition is the one established within the scope of the European research program FUF0SE

¹ This work was carried out with the aid of the Polish Ministry of Science and Higher Education. Research grant No. 028WZ-KAR/02/2016/S/6028.

² Among others: (Bloch & Thomson, 1996, pp. 73-82; Goldberg, 1994; Hasler et al., 2004, pp. 814-815; Pszczoła, 1993, p. 92; Reily, 1994, pp. 121-123).

(Functional Food Science in Europe)³. Considering the definitions proposed in the scientific literature, functional foods should have the form of traditional food, constitute a part of a standard daily diet as well as should be consumed regularly and in normal quantities. Therefore, no dietary supplements or other nutritious substances in the form of capsules, tablets, etc. can be included in this category. In addition to the above mentioned features, the most important aspect is the beneficial impact on the human body that has been documented by clinical trials. Functional foods are also called designer foods or tailored foods. In this category one can distinguish:

- a) natural unmodified conventional foods containing bioactive substances;
- b) modified foods:
 - fortified products – where naturally occurring substances have been fortified (e.g. orange juice with additional vitamin C),
 - enriched products – enriched with additional nutrients (e.g. dietary fibre) that naturally do not occur in these foods,
 - altered products – where undesirable substances (e.g. salt, sugar, fat) have been reduced, removed or replaced with other beneficial ingredients,
 - enhanced commodities – improved to increase digestibility and bioavailability (e.g. through cultivating crops under certain special conditions to obtain optimum levels of desired substances), (Hydzik, 2016, pp. 714-717; *Functional Food*, 2010; Maurice, 2017; Spence, 2006, pp. 4-6; Świdorski, 2003, pp. 27-36).

Despite being the subject of multiple studies and wide availability of this type of food on the market, its legal status has not been regulated yet. As far as EU legislation is concerned, a significant proportion of functional food could be classified in the category “foodstuffs for particular nutritional uses” (Kolarzyk, 2016, pp. 25-31). However, since 2016, after the Regulation (EU) No 609/2013 of the European Parliament and of the Council of 12 June 2013 entered into force, the term, definition and category “foods for particular nutrition uses” is not legally binding. Functional foods are now subject to the same rules as the entire food market, apart from additional regulations for enriched food⁴. Lack of additional labelling makes it difficult for consumers without sufficient knowledge to identify products including bioactive ingredients with proven beneficial effects on health (gis.gov.pl).

3. Research methodology

The study was conducted⁵ in the second half of 2016 in the Małopolskie Voivodship using direct survey method. Quota sampling was applied based on gender (two categories) and age (three categories). Data published in Statistical Yearbook of the Małopolskie Voivodship⁶ (Statistical

³ Full definition: (Diplock, 1999, p. 26).

⁴ In EU: Regulation (EC) No. 1925/2006 of the European Parliament and of the Council of 20 December 2006; In Poland additionally: Regulation of the Minister of Health of 16 September 2010 on enriching substances added to food (J.L. 2010 No. 174, item 1184).

⁵ By the Department of Market Analysis and Marketing Research of Cracow University of Economics.

⁶ Status on 31.12.2014.

Office in Kraków, 2015, p. 99) were used in the study. The analyses presented in this paper were based on responses obtained from 161 respondents.

Principal Component Analysis (PCA), which is one of the methods of factor analysis, was chosen for the declaration and investigation of respondents' behaviours with regard to the food market. The factor analysis model assumes existence of relationships between real data sets (observed variables) and a collection of fewer unobserved factors (generated during carrying out analysis procedure) (Strzyżewska & Rószkiewicz, 2002, pp. 285-289; Stobiecka & Wardęga, pp. 137-141). PCA simplifies the data structure by specifying several latent variables (principal components) that adequately explain the interrelations between many observed variables. Principal components are continuous variables, formed by original input variables. They are always independent of each other. By reducing the number of variables, it is possible to sort the cases per assumed characteristics (Abdi & Williams, 2010, pp. 3-4; Cheba, 2012, pp. 27-36; Zakrzewska, 1994, pp. 30-55).

A Likert scale was used in the questionnaire to obtain input data (observed variables). The respondents were expected to express how much they agree or disagree with a given statement. Responses to both sets of questions (one relating to the declaration, the other relating to behaviour) were measured using a 7-point Likert scale, ranging from "totally agree" to "totally disagree", with a point in the middle "hard to say".

A set of 6 items used in the questionnaire on functional food declarations is presented in Table 1. When constructing this question, two latent theoretical dimensions were laid down in advance: threats and benefits. Variables D1, D2 and D3 refer to threats, while variables D4, D5 and D6 refer to benefits obtained from functional food consumption.

Table 1. Observed variables on respondents' declarations about functional foods

Variable description	Observed variable
D1	Consumption of functional foods by children, the elderly and people suffering from allergies may pose a threat to health.
D2	Active substances contained in functional foods can be easily overdosed.
D3	Functional foods should only be eaten under the supervision of doctors and dieticians.
D4	By eating functional foods, you can avoid many diseases.
D5	Functional foods have better health properties than conventional foods.
D6	Thanks to functional food, it is possible to improve the health of poor people.

Source: own study.

Items on consumer behaviour related to health aspects are summarized in Table 2. In this case no latent dimensions were assumed.

Table 2. Observed variables about the actual behaviour of consumers related to the health aspects

Variable description	Observed variable
B1	I try to buy products of natural origin, I avoid those that were produced with the use of chemicals.
B2	I try not to buy goods suspected of being harmful to my health.
B3	I try to buy goods that do not contain any preservatives, additives and artificial colours or which contain only small amounts of these substances.
B4	Before purchasing, I check the composition of the product and the standard markings affixed to purchased goods.
B5	If the product is harmful to health, I share this information with other people (e.g. friends, family).
B6	I try to avoid buying goods that endanger other people's health.

Source: own study.

In this article the following description of variables will be used: D symbol indicates variables which relate to the declaration (D1, D2, D3, D4, D5), while the symbol B indicates variables which relate to the behaviour (B1, B2, B3, B4, B5).

To show the structure of attitudes and behaviour of consumers in the market, the analysis of k-means clustering was used. This method allows for the formation of clusters (homogeneous groups) with high degree of dissimilarity. Optimal number of clusters is not known in advance and should be calculated based on available data. The method allows for grouping the cases (respondents) with similar attitudes and behaviours (Sagan, 2004, pp. 188-198).

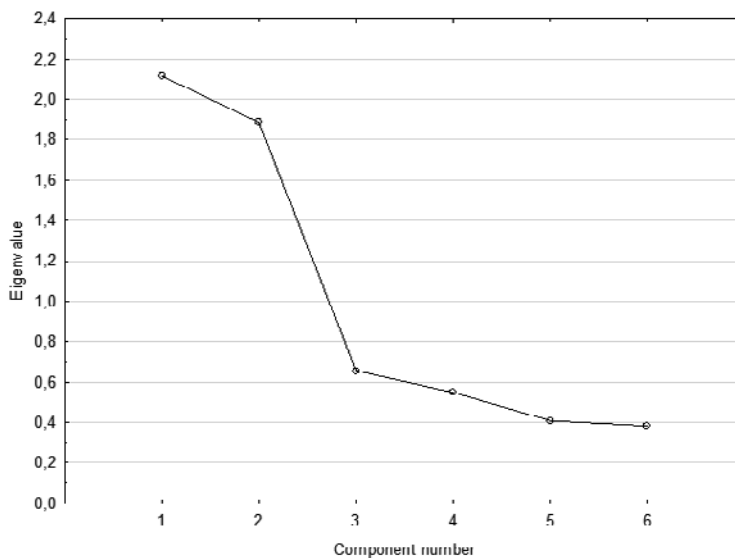
All analyses were performed using Statistica software, version 13.

4. Attitudes towards functional foods

This analysis includes 6 input variables. Based on the scree test (Fig. 1) and the Kaiser criterion⁷ for further analysis, 2 factors (principal components) were qualified. Table 3 shows the eigenvalues obtained for each factor and the variance for each of them. These factors account for 66.7% of the total variance of the input variables.

⁷ Only factors with eigenvalues greater than 1 can be retained.

Figure 1. Scree plot of eigenvalues obtained for attitudes toward functional foods



Source: own study.

Table 3. Characteristics of principal components qualified for analysis of customer declarations

Component	Eigenvalue	Percentage of variance	Cumulated eigenvalue	Cumulated (percentage)
1	2.1167	35.2782	2.1167	35.278
2	1.8856	31.4191	4.0018	66.697

Source: own study.

The next stage of the statistical analysis involved disclosure of latent dimensions by using factor loadings that represent the saturation degree of a variable by the component. Components have been subjected to Varimax normalized rotation to minimize the number of variables needed to explain a given factor. The results are shown in Table 4.

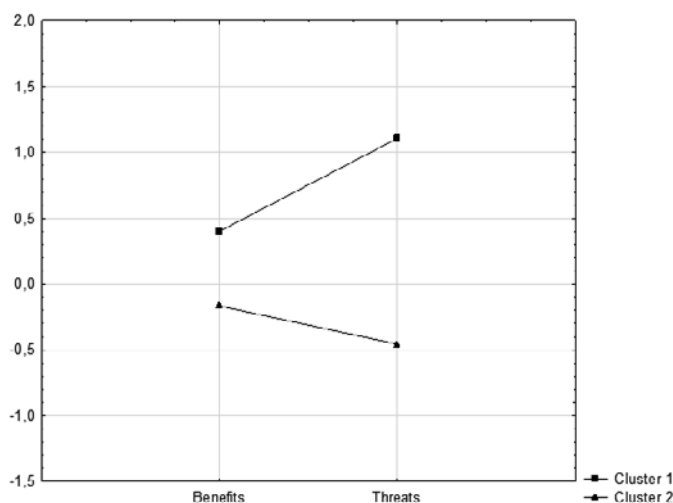
Table 4. Factor loadings obtained by performing PCA after Varimax normalized rotation for attitudes towards functional foods

Variable	Component 1	Component 2
D1	0.1779	0.7049
D2	-0.009	0.8558
D3	-0.089	0.7978
D4	0.8278	-0.186
D5	0.8575	0.0685
D6	0.7765	0.1856

Source: own study.

The analysis of Table 4 shows that the first component consists of observed variables D4, D5 and D6, and the second component consists of observed variables D1, D2 and D3. It confirms the preliminary assumption about latent variables. The items highlighting the benefits of functional food consumption were incorporated into the first component, while items relating to the threats in the second component. The new continuous variables resulting from PCA analysis were used to isolate groups with very similar attitudes towards the analysed food. Cases were grouped applying k-means clustering algorithm. With the two predefined clusters, both variables (perceived benefits and threats) differentiated the clusters at $p = 0.001$, what was interpreted as satisfactory result. Figure 2 shows average values for each cluster.

Figure 2. Plot of means for each cluster



Source: own study.

In order to illustrate differences in the responses of the representatives of both groups, the mean values (items on Likert scale) obtained for each observable variable were presented in Table 5.

Table 5. Differences in responses to attitude related questions regarding functional foods (mean values and standard deviations)

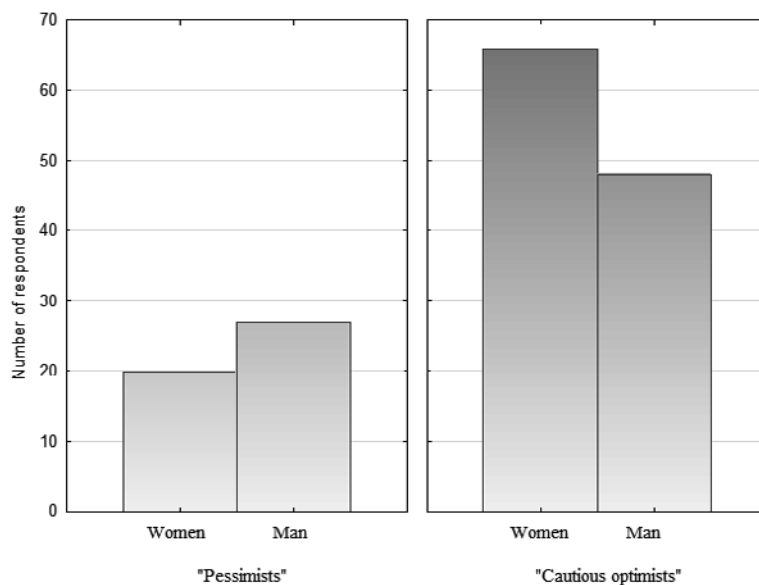
Variable description	Cluster 1 N = 47		Cluster 2 N = 114	
	Mean	SD	Mean	SD
D1	5.6	1.35	3.4	1.12
D2	4.9	1.13	3.5	0.83
D3	5.1	1.11	3.4	1.20
D4	4.6	1.23	4.3	0.91
D5	4.4	1.28	4.0	1.17
D6	5.0	1.27	4.2	0.94

Source: own study.

Cluster 1 – “pessimists” includes 47 people. Respondents in this group generally do not see the benefits of functional foods, but they perceive threats. Most respondents – 114, belong to the second cluster – “cautious optimists”. This group does not perceive functional foods as products potentially posing a threat to health, but is not convinced about the potential benefits of using these products.

Then, homogeneous groups were profiled in terms of demographic characteristics⁸. Statistically significant difference ($p < 0,05$) occurred only in case of the variable “gender”. In cluster 1 the majority of respondents constituted men (57%), as opposed to cluster 2, where women represented 58% of the respondents (see: Fig. 3).

Figure 3. Cluster aggregation by gender



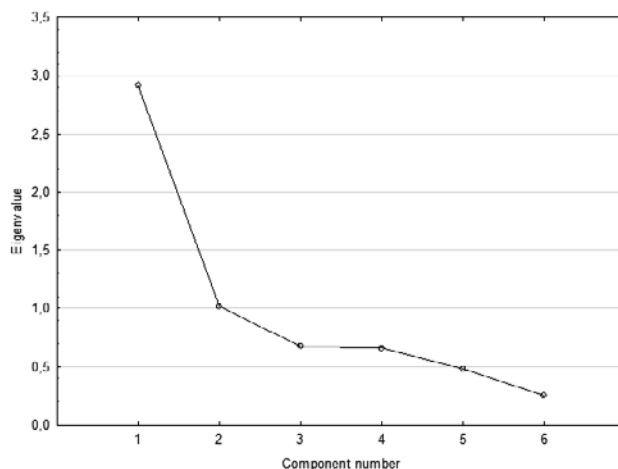
Source: own study.

5. Structure of consumer behaviour in the food market

To gain insight into the consumer behaviour in the food market including health aspects, PCA procedure was applied. The research procedure is analogical to the one used in Part 4 of this article. Out of 6 input variables, two components were qualified for further analysis. These components explain 65.5% of the total variance of all variables. The decision was made based on the scree test (Fig. 4) and the Kaiser criterion. The principal components are shown in Table 6.

⁸ Respondents were asked about: gender, age, education, professional status and declared financial condition.

Figure 4. Scree plot of eigenvalues obtained for behaviour towards health aspects



Source: own study.

Table 6. Characteristics of principal components qualified for customer behaviour analysis

Component	Eigenvalue	Percentage of variance	Cumulated eigenvalue	Cumulated (percentage)
1	2.9117	48.5277	2.9117	48.5277
2	1.0199	16.9985	3.9316	65.5262

Source: own study.

Table 7 shows the factor loadings, which revealed two latent dimensions (two components).

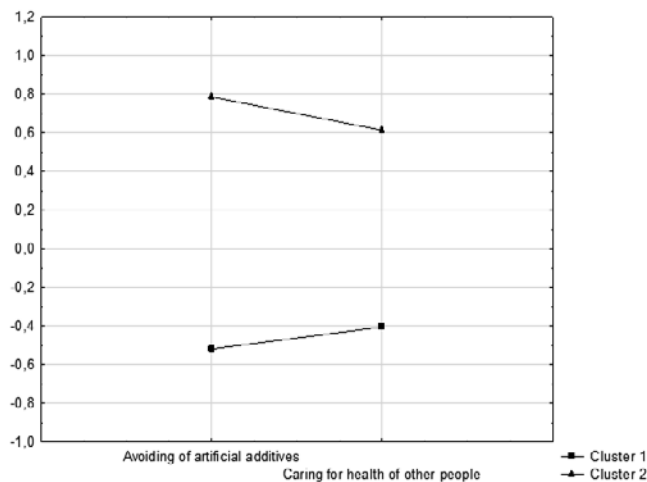
Table 7. Factors loadings generated by PCA after Varimax rotation for behaviour towards health aspects

Variable	Component 1	Component 2
B1	0.8016	0.0357
B2	0.6292	0.2236
B3	0.8684	0.1551
B4	0.7940	0.1776
B5	0.4009	0.6570
B6	0.0084	0.8995

Source: own study.

The first component composed of variables: B1, B2, B3 and B4. These variables represent avoidance of artificial additives that might have a negative effect on health. The second component composed of variables B5 and B6, which concern care about other people's health. The obtained principal components have allowed for separation of two homogeneous groups in relation to consumer behaviour in the food market regarding health aspects. The results of k-means clustering are shown in Figure 5. The mean values calculated for each item of the scale (observed variables) for particular clusters are shown in Table 8.

Figure 5. Plot of means for each cluster



Source: own study.

Table 8. Differences in responses to behaviour related questions regarding the health aspects (mean values and standard deviations)

Variable description	Cluster 1 N = 97		Cluster2 N = 64	
	Mean	SD	Mean	Mean
B1	4.0	1.33	5.7	0.99
B2	5.0	1.27	6.5	0.66
B3	4.1	1.27	5.8	0.86
B4	4.1	1.19	5.7	1.21
B5	3.8	1.57	5.8	0.91
B6	4.2	1.84	5.9	1.25

Source: own study.

Cluster 1 – “passive” – represents respondents who do not pay attention to whether the food contains artificial additives or not, and have a neutral attitude when it comes to taking care about other people’s health. This group includes 97 people, 41% of women and 59% of men. Cluster 2 – includes people who do not buy products with artificial additives and who care about other people’s health. This group was called “active”. It consists of 64 people in total, the vast majority being women (78%).

The final step of this work was concerned with compilation of results (four homogeneous groups) in a cross-tabulation table to show the relationship between consumer behaviour in the market in terms of health aspects and their declarations on functional foods.

Table 9. Relationship between actual customer behaviours and declarations about functional foods

Homogeneous group Pessimists		Declared		Total
		Cautious optimists		
Actual	Passive	31	66	97
	from the column	65.96%	57.89%	
	from the line	31.96%	68.04%	
	Active	16	48	64
	from the column	34.04%	42.11%	
	from the line	25.00%	75.00%	
	Total	47	114	161

Source: own study.

The relationship shown in the Table 9 appeared statistically insignificant ($p=0.34$). But the positive aspect of the study is that the group of cautious optimists includes as much as 75% of active and 68% of passive consumers. Such distribution, in which most respondents (71% of all surveyed) express positive attitude towards functional foods, means that the market for this type of products in Poland has quite a large potential.

6. Conclusion

Based on the results obtained, we can conclude that the functional food market in Poland is still immature. Cautious approach of the consumers as well as lack of conviction that functional food produces health benefits constitute a significant obstacle to the development of this part of food market. It may result from limited availability of the knowledge as legal provisions do not provide the definition of the functional food. The positive aspect of the study is that most respondents (71%) have a positive attitude towards this type of food and consider it safe for health.

Proper communication about the beneficial effects on health including reduction of the risk associated with contracting illnesses is necessary to develop functional food market in Poland. Providing reliable information to consumers should reinforce positive attitudes towards functional foods expressed by “cautious optimists” and convince the group of “pessimists”.

Bibliography

1. Abdi, H., & Williams, L.J. (2010). Principal Component Analysis. *Wiley Interdisciplinary Reviews: Computational Statistics*, 2. Retrieved on 20/04/2017, from: <https://pdfs.semanticscholar.org/53b9/966a0333c9c9198cdf03efc073e991647c12.pdf>.
2. Bloch, A., & Thomson, C.A. (1996). Position Statement of American Dietetic Association: Phytochemicals and Functional Foods. *Journal of American Dietetic Association*, 96(1), 73-82.
3. Cheba, K. (2012). The Applications of Factor Analysis in Study of Spatial Differentiation of Standard of Living on the Example of a Medium-size Cities in Poland. *Folia Pomeranae Universitatis Technologiae Stetinensis, Oeconomica*, 297(68), 27-36.

4. Diplock, A., Aggett, P., Ashwell, M., Bornet, F., Fern, E., & Roberfroid, M. (1999). Scientific Concepts of Functional Foods in Europe – Consensus Document. *British Journal of Nutrition*, 81, 1-27.
5. *Functional Food*, (2010). Publications Office of the European Union, Luxembourg. Retrieved on 20/04/2017, from: http://www.eurosaire.prd.fr/7pc/documents/1276590504_functional_foods_en_publication.pdf.
6. Goldberg, I. (Ed.). (1994). *Functional Foods. Designer Foods Pharma Foods, Nutraceuticals*. Preface. New York, Chapman & Hall.
7. Gutkowska, K., Kowalczyk, I., Sajdakowska, M., Żakowska-Biemans, S., Kozłowska, A., & Olewnik-Mikołajewska, A. (2014). Postawy konsumentów wobec innowacji na rynku żywności. *Handel Wewnętrzny*, 4(351), 80-93.
8. Hasler, C.M., Bloch, A.S., Thomson, C.A., Enrione, E., & Manning, C. (2004). Position of the American Dietetic Association: Functional Foods. *Journal of American Dietetic Association*, 104(5), 814-826.
9. Hydzik, P. (2016). Ryzyko zdrowotne związane z wykorzystaniem nanotechnologii w sektorze rolno-spożywczym. [in:] E. Kolarzyk (Ed.), *Antyodżywcze i antyzdrowotne aspekty żywienia człowieka*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
10. Kolarzyk, E. (2016). *Współczesne i interdyscyplinarne podejście do żywności*. [in:] E. Kolarzyk (Ed.), *Antyodżywcze i antyzdrowotne aspekty żywienia człowieka*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
11. Maurice, M.I. (2017). *Food as Medicine: Functional Food Plants of Africa*. I Series: Functional Foods and Nutraceuticals. Boca Raton: CRC Press.
12. Pszczoła, D.E. (1993). Designer Foods: An Evolving Concept. *Food Technology*, 47(3), 92.
13. Regulation (EC) No 1925/2006 of the European Parliament and of the Council of 20 December 2006 on the Addition of Vitamins and Minerals and of Certain other Substances to Foods.
14. Regulation (EU), No 609/2013 of the European Parliament and of the Council of 12 June 2013 on Food Intended for Infants and Young Children, Food for Special Medical Purposes, and Total diet Replacement for Weight Control and Repealing Council Directive 92/52/EEC, Commission Directives 96/8/EC, 1999/21/EC, 2006/125/EC and 2006/141/EC, Directive 2009/39/EC of the European Parliament and of the Council and Commission Regulations (EC) No 41/2009 and (EC) No 953/2009.
15. Regulation of the Minister of Health of 16 September 2010 on enriching substances added to food (J.L. 2010 No 174, item 1184).
16. Reilly, C. (1994). Functional Foods a Challenge for Consumers. *Trends in Food Science and Technology*, 5(4), 121-123.
17. Sagan, A. (2004). *Badania marketingowe. Podstawowe kierunki*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
18. Sobczyk, G. (2014). Współczesna konsumpcja – nowe trendy na polskim rynku. *Zeszyty Naukowe WSEI, seria Ekonomia*, 9(2), 87-104.
19. Spence, J.T. (2006). Challenges Related to the Composition of Functional Foods. *Journal of Food Composition and Analysis*, 19, 4-6.
20. *Statistical Yearbook of The Małopolskie Voivodship, year XVI*. (2015). Statistical Office in Kraków.
21. Stobiecka, J., & Wardęga, J. (2016). *Predykcja zachowań konsumentów na rynku żywności modyfikowanej z wykorzystaniem regresji logistycznej*. [in:] A. Grześkowiak, K. Mazurek-Łopacińska,

- M. Sobocińska & A. Stanimir (Eds.), *Metody badań marketingowych. Modelowanie, technologia, wizualizacja*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.
22. Strzyżewska, M., & Rószkiewicz, M. (2002). *Analizy marketingowe*. Warszawa: Difin.
23. Świderski, F. (Ed.). (2003). *Żywność wygodna i żywność funkcjonalna*. Warszawa: Wydawnictwo Naukowo-Techniczne.
24. *Żywność specjalnego przeznaczenia*. Główny Inspektorat Sanitarny. Retrieved on 15/03/2017, from: <http://gis.gov.pl>.

Chapter 31

Asymmetry of Information on Consumer Credit Market¹

Ewelina Pawłowska-Szawara

1. Introduction

In times of rapid globalisation, information plays a significant role in making financial decisions for all economic operators. The phenomenon known as information asymmetry is one of imperfections of the market and it means uneven access to information for various subjects, also in bank- client relations. The party which possesses informative advantage can use it to increase its benefits at the expense of the party which is less informed. Currently, various regional and international institutions get more and more interested in diagnosing the areas where information asymmetry is present on financial markets. They are also interested in reducing it as it has negative effect on the stability of financial and economic systems. Asymmetry of information is one of the causes of market failure, as well as of ineffective allocation of resources and it requires state intervention. One of the effects of information asymmetry is that some of transactions are not carried out. This harms the whole economy, which then functions ineffectively.

Customers should be provided with true, honest and extensive information not only when entering into a credit agreement, but also when filing the application for subsidy. The interest in information asymmetry on consumer credit market is dictated not only by cognitive purposes. Taking up this subject is also brought about because of the possibilities to apply the analyses and results of studies in the banking sector, together with making use of conclusions about the creation of information asymmetry on the credit market.

The aim of this article is to determine factors causing information asymmetry on consumer credit market as well as to suggest the solutions to this problem together with suggesting the areas of application of conclusions from the studies for both creditors and borrowers. The second chapter presents the very issue of information asymmetry and discusses its reasons and consequences. This paper depicts also the problems of adverse selection and moral hazard on credit market in Poland. Source materials containing the most important publications of domestic and foreign literature on this subject, reports, databases and normative acts were used.

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2. The notion of information asymmetry on credit market

A developed and well-functioning banking sector is a key factor determining the pace of growth in the economy of every country. Academic studies in the theory of finances show that there is a range of negative phenomena on the banking market which distort its functioning (Ciżkowicz, 2008). Among those is information asymmetry, which implies other adverse processes, like moral hazard or adverse selection, which will be dealt with later on in this article (Pohulak-Żołędowska, 2007).

According to J.E. Stiglitz, distortion and asymmetry of information are common phenomena in the economy (Stiglitz & Northampton, 2002, pp. 31-40). Vast number of scandals in financial relationships in Poland (e.g. Amber Gold, policies combined with a deposit, mortgages of banks in the form of joint stock companies denominated in CHF) proves the existence of information asymmetry and the intellectual imbalance between markets' participants. This form of information advantage leads to disproportionate enrichment of the stronger subject (i.e. bank- creditor), at the expense of the market participant which is weaker (consumer-borrower).

A threat to interests of the client who is applying for a credit is the result of his relatively weaker position regarding its financing institution (Forlicz, 1996, p. 5). The credit agreement does not constitute a contract which is negotiated individually to meet the customer's needs. On the contrary, the choices are limited to the analysis of standard credit offers available on the market (Szpringer, 2005, p. 20). The bank's loan offer is a kind of a package which can be modified to some extent so that it meets the client's expectations (e.g. the choice of additional products to the credit, or the so-called cross-selling). From the point of view of the customer, the banks can take advantage of their privileged position (which is understood as having information advantage) in the following ways (Instytut Badań nad Gospodarką Rynkową, 2003, pp. 35-40):

- impeding access to detailed information about the credit agreement, which can result in erroneous calculations and make it more difficult to make the right decision,
- deliberately limiting time to think matters over and compare the offers which leads to irrational decisions,
- imbalance in the number of rights and responsibilities of two sides of the contract (e.g. in case of delay in interest repayment),
- making the decision whether or not enter into a contract with a client depending on whether he buys some extra service or product (this can be e.g. opening a new, additionally paid account, establishing a credit card, buying extra insurance),
- introducing unjustified difficulties and restrictions for clients in pursuing their claims,
- creating difficulties or charging extra amounts of money for termination of the credit contract (e.g. charging interest for every day after resources have been given to the borrower).

Big complexity and complications of consumer credit agreements bring about information asymmetry (Kaczorowska & Kurzyńska-Lipniewicz, 2009, p. 27). When choosing the credit, the future borrowers should take into account not only the total annual cost of the credit (Commission Directive from 14 November, 2011), but also the repayment plan (equal or decreasing installments, the day of repayment etc.), the model of charging interest, additional charges and commission, the grace period as well as compulsory insurances. All these factors create significant difficulties for an average borrower as they demand from him having particular expertise. Problems with comparing the banks' offers may cause ineffective management of households' property and income. Keeping the clients consistently uninformed puts the banks at risk because making

decisions about granting a consumer credit without enough information may result in accumulation of losses and, at the same time, can threaten the stability of the whole financial system. In this context, information can be seen as a particular kind of common good which refers to consumer credit market (Wilhelmsson, 2004, p. 317).

Information asymmetry does not only happen when one of the sides of the contract (here: the bank) is a professional and can abuse the fact that the other side (its client) is uninformed. It should be stressed out that only the borrower is able to assess his real financial situation because it is only him who has knowledge whether he will or will not repay the credit. The borrower may effectively withhold some information from the bank. In consequence, the bank may make a decision which may result in serious losses. The creditors, in turn, charge additional fees to pay the costs generated by information asymmetry. These fees cover the expenses of monitoring potential clients and verifying if the credits are paid off on time (Heremans, Bouckaert & Geest, 2000, p. 954). On the other hand, the holder of a bank deposit usually is not able to assess the financial condition of the bank or the risk of money loss. This kind of imperfect information in the market functioning is very common in the banking sector. Rating agencies of all kinds which analyse the banks' financial situation do not agree on the assessment of these institutions' financial condition. However, they speak with one voice when it comes to their opinions about other sectors of the market (Barth, Caprio & Levine, 2006, p. 24). In anticipation of the line of thought, one can conclude that information asymmetry in borrower- lender relations is one of main reasons for the regulation of banking activities.

Transaction costs are indissolubly linked to the functioning of financial markets and they are as follows: costs of gathering information, monitoring and costs of possible debt collection. Therefore, information is of key importance in the financial sector, which is also applicable to the consumer credit market. Prescriptive regulation of consumer protection on the credit market both before concluding a transaction and during the term of the agreement is a way to eliminate imperfections of market mechanisms like information asymmetry. On the other hand, introduction of regulations allowing to gather and exchange information about customers' credits will make it possible to reduce costs of transactions and to increase the effectiveness of customer credit markets' functioning.

3. Adverse selection on credit market in Poland

X. Freixas and J.C. Rochet consider asymmetry of information in the context of one of its consequences, i.e. adverse selection (Freixas & Santomero, 2003, p. 37). Adverse selection happens when information asymmetry leads to the market failure and causes the displacement of the better product by the worse one (Spence, 1973, pp. 355-374). The consumer credit market is not perfectly transparent, which is exploited by the banks which have information advantage. These institutions, knowing that their clients are not able to assess their credit offer, propose to them a product of average price and quality. Thus, the borrowers who could have obtained more favourable credit conditions, have to do with the "lower" standard which functions on the market and it is the borrowers who are subject to adverse selection. On the other hand, the creditors neither possess full knowledge about how much information their clients have nor they have full knowledge about their solvency. They only assess the probable extent of those two variables (Stiglitz & Weiss, 1981, pp. 393-410).

J.E. Stiglitz and A. Weiss' studies show that information asymmetry results in a "returning" credit supply curve. Above a certain estimated level of interest rate the creditors decrease the supply because in their understanding the higher interest rates are, the higher risk. Such unfavourable credit conditions are usually accepted by high-risk borrowers (Stiglitz & Weiss, 1981, p. 394). The expected rate of return from the loan constitutes the decreasing function of its risk. Lack of transparency on consumer credit market affects the way the banks behave because they do not possess full information about the level of risk of credits provided to consumers, or about the clients' solvency. In practice, obtaining such information is not only difficult, but it also generates high costs. Credit institutions can only assess the risk of credit repayment. Creditors actually do not possess any tools for the selection of debtors on consumer credit market, where there is much diversity in the level of credit collateralisation. Asymmetry of information on consumer credit markets does not allow the creditor (i.e., the principal) divide the borrowers (agents) into the "better" and "worse" ones because it is impossible to determine their intentions as to the credit repayment.

For these reasons competition on consumer credit market is of a quantitative, not qualitative nature. Bank offers are constructed on the basis of general regulations and conditions of agreements (Szpringer, 2005, p. 22). In result of adverse selection, subjects which are better informed drive other subjects out of the market. Also, adverse selection brings about increased activity of sub-prime borrowers, who only make an impression of being reliable. An increase in credit interest rates has more effect on credible borrowers, who, when faced with such increase will resign from the transaction and rather look for a cheaper credit in some other bank (Bertola, Disney & Grant, 2006, pp. 12-13). Based on this, the banks' market offers are created- they in fact base on general conditions of agreements, regulations and master forms. Then, reliable customers obtain credits for an artificially high price, whereas "worse" clients get relatively better conditions (Daniłowska, 2008, pp. 38-46). This leads to the lowering of quality of credit offers and to situations when the "worse" crediting conditions drive out the "better" ones. At the same time, some people, e.g. students, the unemployed or workers with low income may be at all deprived of access to the credit market (Jeziorska, 2004, pp. 133-152).

There are a number of ways to prevent adverse selection, e.g. creating advanced scoring models by crediting institutions, as well as creating a database where all information about the borrowers and their credit history is included. In economy, such activities are known as screening and they are understood as gathering information about the borrowers' no observed qualities. Especially in least developed countries, since 2003, when the World Bank, together with its agency, IFC (*International Finance Corporation*), launched a "Global Credit Bureau Program", the situation has been changing rapidly. The programme was aimed at speeding up the development of credit information exchange systems. All help and instructions given by this programme covered various fields, for instance technical assistance in the disbursement and development of credit register or legal assistance (Bieć, 2011, p. 102). Registers of credit information exchange continue to evolve and are subject to many changes which are directly connected with clients' ever-changing needs and requirements, as well as with the implementation of new regulations and other legal solutions aimed at main participants of the market, i.e. banks. New information and communication technologies also have a significant impact on the development of credit registers (Kurkliński & Markowski, 2012, p. 13).

4. Moral hazard on credit market in Poland

Moral hazard constitutes yet another malfunction of the market. It is connected with information asymmetry which happens both when the transaction is carried out as well as during its length. It may happen on credit market in a situation when the credit is secured with the property at an artificially high price. What is more, in some cases, the borrower may delay the payment of credit installment knowing that the bank would agree to make concessions to him in hope to get at least some payment back. Moral hazard occurs when contractual relations are permanently distorted by the regulations in favour of one of the parties of the consumer credit agreement. Excessive protection of customers' rights may not only lead to the claimant attitude, but also to lack of feeling of any responsibility.

Moral hazard is one of the most severe problems in modern banking both on domestic and international scale. It also happens when the sustainable financial safety net is built (Ruding, 2002, p. 15). Taking into account examples of financial institutions' collapse, one must find an answer to the question whether they can encourage other credit institutions to take risky loans in the future. The borrowers could come to the conclusion that they would not have to take full responsibility for the loss or deal with it only on their own. Credit institutions take the risk of lending, and the increase in the amount of credit of higher risk usually means a possibility to generate more revenue (Wittman, 2006, p. 296). Moral hazard is intensified when the banks give considerably risky credits while not entirely realising the fact that in case of any problems with customers who fall behind with their repayments, they could not be able to cover their losses. Depositories, tax payers and other stakeholders often have to take the risk of the credit institutions' wrong decisions (Summers, 2007).

Some economists claim that moral hazard brought about the lowering of credit standards in the USA, which in turn induced the financial crisis of subprime credit market in 2007. Each link in a credit chain which generated profit was "sure" that it is not them who take the risk, because they all shifted the risk to the next link in the chain. Credit institutions which resold their credits offloaded the risk on the investors. Investment banks, after they had obtained such credits, divided them into "smaller parts" in the form of mortgage-backed securities (MBS). It is worth noting that some of these securities were more risky than the other ones. Investors purchased securities and by concluding a hedge transaction they protected themselves against the risk of insolvency as they pushed the risk further on. Moral hazard is not only the consequence of the so-called large banks, but it also reflects previous mistakes of government policy towards such banks and what is meant here is their unwarranted interventions. International organisations have taken some measures to deal with moral hazard of large banks as well as with faster increase of assets in the banking sector and cross-border relations between large banks. On 4 November 2011, the Financial Stability Board published the list of cross-border banking corporations (G-SIBs) which are subject to additional inspections. Works of Financial Stability Board (FSB) and Basel Committee on Banking Supervision (BCBS) from October, 2011 resulted in the strengthening of legal underpinnings which determine international cooperation in terms of information flow and making mutual decisions about organized liquidation of financial institutions, as well as about the rules of determining additional, minimal capital requirements for G-SIBs in accordance with the "additional ordinary shares as a percentage of risk weighted assets" formula. The capital requirement for G-SIBs from 1% to 3.5% of risk weighted assets is set based on a scoring model (Kwaśniak, 2011, p. 10). The list of biggest cross-border bank corporations (so called G-SIBs, Global Systemically Important Banks) is updated every November.

As mentioned earlier, the risk of moral hazard results to a large extent from information imperfections that happen on the financial market. Introduction of strong supervision may solve the problem only to some extent, and at the same time it may hamper the development of the whole banking system. Therefore, introducing regulations imposing on banks the disclosure of information about their activities seems to be more effective (Freixas & Santomero, 2003). Thanks to such regulations, the market is able to more successfully monitor the risk which particular credit institutions take. This way, the market mechanism is not replaced with regulations. Not only that- thanks to this its effective operation is increased. An example of such stabilisation of market mechanisms is the requirement to provide the borrowers with detailed information about the costs of credit agreements as well as to create such rules of banks' functioning which aim at limiting the risk (e.g. the requirement to possess capital reserves accurate to the degree of risk involved)².

5. Conclusion

To sum up, the significant risk of malfunctions on the market is the main reason for the necessity to regulate the consumer credit markets by the state. Disruptions of market mechanisms, in turn, are of importance for the social wellbeing. For these very reasons credit services, and, in particular, relationships between professionals and consumers, were regulated. Reasons for more strict regulations of consumer credit markets must not be limited only to reinforcing protection of the consumer, who is the weaker side of the transaction. Also, the protection of the lender's interests should be taken into consideration. They, too, are at the risk of falling prey to market malfunctions. Safety and stability of the credit market should be guaranteed by proper regulations and proper supervision. Credit instruments which are offered to clients are becoming more and more complicated and rapid development of information technology and telecommunication as well as financial innovations and globalisation processes affect the size of the credit market, too. Increasing availability of credit products for consumers, which are more and more often considered as one of instruments of monthly budget management, results in the increase in the debt level of households.

Bibliography

1. Barth, J.R., Caprio, G., Jr., & Levine, R. (2006). *Rethinking Bank Regulation: Till Angels Govern*. Cambridge.
2. Bertola, G., Disney, R., & Grant, C. (2006). The Economics of Customer Credit Demand and Supply. [in:] G. Bertola, R. Disney & C. Grant (Eds.), *The Economics of Customer Credit*. Cambridge-London: MIT Press.
3. Bieć, A. (2011). *Rejestry kredytowe. Teoria i praktyka*. Warszawa: Oficyna Wydawnicza SGH.
4. Ciżkowicz, P. (2008). *Rozwój finansowy a rola państwa*. Warszawa: „Zeszyty FOR”.
5. Daniłowska, A. (2008). Asymetria informacyjna i jej przezwyciężanie na rynku kredytów rolniczych. *Roczniki Nauk Rolniczych*, 95(3/4), 38-46.

² Act from 29 August, 1997. Banking law (Dz.U. of 1997, No. 140, item 939).

6. Dyrektywa Komisji 2011/90/UE z dnia 14 listopada 2011 r. zmieniająca część II załącznika I do dyrektywy 2008/48/WE Parlamentu Europejskiego i Rady, zawierającą dodatkowe założenia do obliczania rzeczywistej rocznej stopy oprocentowania (Dz. Urz. UE z dnia 15 listopada 2011 r. L 296, p. 35).
7. Forlicz, P. (1996). *Mikroekonomiczne aspekty przepływu informacji pomiędzy podmiotami rynkowymi*. Poznań: Wyższa Szkoła Bankowa.
8. Freixas, X., & Santomero, A.M. (2003). *An Overall Perspective on Banking Regulation*. Economic and Business Working Paper No. 664. Barcelona: Universitat Pompeu Fabra.
9. Heremans, D., Bouckaert, B., & De Geest, G. (Eds.). (2000). *Encyclopaedia of Law and Economics*, Vol. 3. Cheltenham: The Regulation of Contractp.
10. Instytut Badań nad Gospodarką Rynkową (IBnGR) (2003). *Zagrożenia dla konsumentów na rynku bankowości detalicznej w Polsce*. Warszawa: Raport opracowany przez Urząd Ochrony Konkurencji i Konsumentów.
11. Jeziorska, M. (2004). Wycena kredytu bankowego w warunkach asymetrii informacji. *Zeszyty Naukowe Uniwersytetu Szczecińskiego*, (394), 133-152.
12. Kaczorowska, P., & Kurzyńska-Lipniewicz, A. (2009). *Prawne aspekty ochrony konsumenta w Polsce i w Unii Europejskiej*. Legnica: Seria wydawnicza Państwowej Wyższej Szkoły Zawodowej im. Witelona w Legnicy.
13. Kurkliński, L., & Markowski, K. (2012). *Systemy wymiany informacji kredytowej – Doświadczenia polskie i europejskie*. Warszawa: Biuro Informacji Kredytowej.
14. Kwaśniak, W. (2011). *Zarządzanie kryzysem w wielkich bankowych korporacjach transgranicznych*. Warszawa: Komisja Nadzoru Finansowego.
15. Ruding, H.O. (2002). *The Transformation of the Financial Services Industry*. Occasional Paper, No. 2. BIS, Basle: Financial Stability Institute.
16. Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87(3), 355-374.
17. Stiglitz, J.E., & Weiss, A. (1981). Credit Rationing in Markets with Imperfect Information. *The American Economic Review*, 71(3), 393-410.
18. Stiglitz, J.E. (2002). Keynesian Economics and Critique of First Fundamental Theorem of Welfare Economics. [in:] T. Cowen & E. Crampton (Eds.), *Market Failure or Success: The New Debate*. Cheltenham UK, Northampton MA. USA: Edward Elgar Publishing Company.
19. Summers, L. (2007). Beware Moral Hazard Fundamentalists. *Financial Times*, 23.
20. Szpringer, W. (2005). *Kredyt konsumencki i upadłość konsumencka na rynku usług finansowych UE*. Warszawa: Dom Wydawniczy ABC.
21. *Ustawa z dnia 29 sierpnia 1997 r. Prawo bankowe* (Dz.U. 1997 nr 140 poz. 939).
22. Wilhelmsson, T. (2004). The Abuse of the "Confident Consumer" as Justification for EC Consumer Law. *Journal of Consumer Policy*, 27(3), 317-337.
23. Wittman, D.A. (2006). *Economic Foundations of Law and Organization*. Cambridge.

Chapter 32

Application of Crowdsourcing in the Polish Fashion Industry¹

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1. Introduction

The concept of crowdsourcing has been functioning in the global marketing literature for more than a decade. Therefore, it can be concluded that it is not a new category or little known concept. On the contrary, it is an example of economic activity which is increasingly being discussed by researchers and practitioners. First and foremost, this is due to the change of pace resulting from the development of information technology (Pukas, 2014; Krawiec, 2014).

Crowdsourcing is often perceived as an extremely flexible term that can take many forms. It is worth noting that the above-mentioned perspective does not facilitate analysis. In addition, there is no agreement among the researchers on the ways of defining it, so various concepts are presented that show its essence and application possibilities. The studied conceptual category is analyzed in various sections, including broad and narrow terms. Under the latter approach emerge new research areas, which correspond with changes in the business environment.

The primary purpose of the article is to identify the possible use of crowdsourcing in the fashion industry. During the course of the discussion, diagnostic analysis of the literature of the subject was used. Theoretical discussion is complemented by current examples of national practice in Poland.

2. Prosumption and its manifestations

For the first time, the term “prosumption” was used in his book *The Third Wave* by American sociologist and futurologist, A. Toffler (1997). This concept meant moving production from the sphere of economy officially recognized by economists to the sphere of neglected economy.

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However, A. Toffler understood prosumption primarily as a shift of certain tasks to the consumer – in line with the “do it yourself” concept. Increasing consumer engagement involves doing things that someone else has done for them before. B. Jung (1997) emphasizes that the term “prosumption” comes from the combination of the two words – “production” and “consumption” – and implies the interpenetrating of production and consumption. Prosumption is the phenomenon of the intertwining of consumption and production processes until the boundaries between them become blurred.

According to D. Tapscott (2008), prosumption is expressed by:

- loss of control over the products and their subsequent life-cycle after production and sales,
- to provide customers with the tools and materials they need to create their own products,
- partnership, involving the evolution of customers into business partners,
- sharing the fruits of their work – customers want to, in fact, enjoy the perks of their commitment.

In practice, this engagement of consumers can take the following forms.

Personalization. Consumers have an impact on the final version of the product or service they buy – they decide on the product’s features that reflect their desires and needs. An example of such a consumer engagement includes car dealer offers: the customer selects additional features and the color of the car according to their preference. In the services sector, an increasing phenomenon are *tailor made services*, suited to individual customer needs.

Product hacking. Modifying products to improve them to fit customer needs, often without brand approval, although some companies, knowing their customers, allow them to improve their products. Examples of product hacking include, for example, IKEA furniture modifications (the effects of consumer creativity are often posted as instructional videos), or changes in audio-video equipment (such as iPods).

Collective intelligence. Its concept in the virtual community was brought to life Pierre Lévy (2006), defining it as “any human group not so much interested in creating a virtual community but rather one approaching an ideal of collective intelligence, more ingenious, faster, more capable of learning, inventing than collectively intelligently conducted” (Lévy, 1997 [in:] Jenkins, 2006, p. 31).

Crowdfunding. This is a type of accumulation and allocation of capital that is transferred to the development of a specific project in return for a specified return service, which involves a large group of donors. It is characterized by the use of information and communication technologies, a lower entry barrier and better transactional conditions than those available on the market.

3. The essence of crowdsourcing

The term crowdsourcing was first used by J. Howe in 2006 in the American “Wired” magazine. The author described it as different forms of cooperation of companies with Internet users, using their knowledge, skills and ideas. According to J. Howe (2006), crowdsourcing can be seen in several ways:

- common problem solving and suggestion of improvements with the participation of collective intelligence,
- use of the so-called crowd wisdom and in this particular case the use of the potential of Internet users,

- microwork,
- social funding of projects (crowdfunding),
- analysis and selection of the best solutions from the presented proposals.

Underlying the assumption of the theory of crowd wisdom lies the conviction that collective problem solving by a group of people provides better results than the creativity of individuals. According to J. Surowiecki (2010), the source of “crowd” advantage is not reaching consensus, but aggregating ideas of individual participants in a given group by using their proactivity, creativity and independence.

An attempt to define crowdsourcing was made by E. Estelle-Arolas and F. Gonzalez-Ladron de Guevara (2012), based on the analysis of more than 40 propositions of definitions available in the literature. The authors identified this phenomenon as a kind of participatory Internet activity in which an individual, an institution, a nonprofit organization or an enterprise issued an open invitation and a voluntary take on a specific task to a group of people. Satisfaction of the person performing the task can be typically economic (financial), social (recognition), individual (self-esteem, development of skills). In turn, the person who orders the task gets the solution to the problem (Adamska-Mieruszevska & Mrzygłód, 2012).

It is also interesting to propose a broad and narrow definition of crowdsourcing, as done by M. Kowalska (2015). Broadly speaking, crowdsourcing means any activity involving any type of knowledge, skill or financial resources of a broadly engaged crowd (whether paid or free) specified in an open invitation by a private individual, an organization, an NGO or an enterprise. Crowdsourcing, in the narrow sense, means the activity of heterogeneous virtual communities, involving their knowledge, skills or assets to carry out certain activities commissioned in the form of an open invitation on the Internet.

4. Innovations in the fashion industry

The fashion industry, as well as the textile industry, have undergone enormous changes in recent years. These are compared to the breakthrough that occurred after the World War II (Rudny, 2015).

Contemporary fashion is not limited to the social or cultural but also the functional aspects. Increasingly, modern lifestyle is associated with the widespread access to clothing, footwear and accessories. As a result, in recent years, the system called fast fashion has grown. Its key feature is to provide to the market a wide variety of articles, as well as ones with limited availability. Clothing companies operating in this segment do not limit their collections to two seasons (spring/summer and fall/winter), offering collections for sub-seasons in return, to match their schedule to suit customer needs (Semppruch-Krzemińska, 2014).

The production cycle in the fast fashion industry is based mainly on modern systems of production and distribution. For example, such a system is a solution offered by Siemens Software PLM that allows the customer to manage the life cycle of products manufactured by the fashion industry (Siemens, 2011). In addition, the business model in the industry requires innovative solutions that will allow fashion brands not only to reach potential customers but also to interact with them and build relationships.

New technologies are conducive to acquiring those customers who have concerns about the purchases made over the Internet. For this group, the application fits.me may be helpful. Such

a solution allows one to find out whether given clothing items will fit the potential customer without leaving home (Rudny, 2015). In turn, the Asap24 application is an example of a search engine to identify the elements of the styling in different people. One simply take a picture of clothes and uploads them to the application. The answer will be a list with similar articles along with a list of their prices. A profiled solution is Stylect, which contains a list of more than 50 thousand pairs of shoes in various styles. This solution allows the customer to get acquainted with the offer of skateboarding brands, as well as to make purchases (Jemerced, 2014).

It is worth noting that the fashion industry has been recognized and awarded by the National Research and Development Center (NCBR). In 2016, INNOTEXTILE contest was launched with a budget of 60 million PLN. The program included such research areas as personalization of clothing design, individualization of textile design and custom made production. In its premise, the contest was primarily aimed at carrying out research and development work on the implementation of innovative solutions in the textile industry². In the justification of the competition, it was emphasized that Polish textile companies have all the potential to promote internalization in foreign markets. A key facilitation for the implementation of these activities should be innovative technologies.

The modern consumer browsing listings on the Internet has more and more choice. This is especially true of clothing. In popular opinion, there is a view that in the cited case, the increase in the quantity of available products is associated both with a variety of designs or styles. What is more, within a single model, various colors are offered to purchasers (Szymkowiak, 2014). However, you must agree with the view that, for the contemporary customer, a tailor-made offer has greater value than one with a wide selection of options (Grzesiuk, 2014). A solution that can highlight a purchasing decision as well as determine its uniqueness, is personalization. Its primary purpose is to make the customer feel that the offer is directed to him or her alone (Szwarc, 2010). It is worth noting that this concept is not a new category, but it undoubtedly takes on a particular meaning in the fashion industry. Personalization allows consumers to create unique products tailored to their preferences, as well as on the background of mass articles available in commercial networks.

An innovative solution available for the representatives of the fashion industry is the Demish tool. The product enables designers and apparel companies offering customers to personalize their offered articles at their own corporate websites or via a Facebook application. In this way, customers can create clothes or accessories that best fit to them and reflect their style (<http://www.offer.demish.com/pl/#>, 6.04.2017). A featured example should be considered as a solution for product development in accordance with the expectations of their potential users.

Innovative activity in the fashion industry still remains crowdsourcing, which allows one to keep an open dialogue with consumers in order to improve products or to adapt them to the needs of potential users (*Our Top...*, 2012). A broader view on crowdsourcing shows that there are different varieties in the Polish fashion industry, which largely derive from the adopted business model.

² More information on: <http://www.ncbr.gov.pl/fundusze-europejskie/poir/konkursy/konkurs112-2016in-notextile>.

5. Crowdsourcing in the fashion industry – case studies

Handbags by Zuzia Górską – “made to measure”

Zuzia Górską's workshop is a small manufacture in the village of Odrzykoń in the Podkarpackie Province in eastern Poland. Its main activity is based on designing and sewing of bags, purses, clutches and accessories (m.in. toilet bags, pencil cases, bracelets, cases). The largest selection of products is available in the category of handbags. All products are made of natural leather and fabrics. Each of the purchased articles can be personalized by selecting the outer color, lining and embroidery.

The primary source for information about the workshop is a website (<https://zuziagorska.pl/>), as well as a profile on Facebook. What is important, according to owner, the only and effective marketing activities carried out by the company are taking place in the social network. The profile features mainly photo articles, as well as information about promotions and discounts (Wawrzyczek, 2013). After reading the information on the website it can be stated that the owner is very passionate about her work and she is trying to treat her potential customers very personally.

Delivery time is 25 business days. Such a long time of order realization should be justified in that each article is created individually at the customer's request. Most models available are available in a completely different colors than those shown in the pictures. On request, the color of the surface, type of material, leather and lining pattern may be changed. The intention of the workshop owner is to create unique handbags as well as to match the preferences of their users. Consequently, any personalized embroidery in the form of initials, inscription or simple graphics can be ordered for free. The manufacturer can place the embroidery anywhere on the article as well as in any color.

Wisłaki – the first fashion crowdfunding in Poland

The Wisłaki brand was the first fashion brand in Poland which was created thanks to crowdfunding. Its foundation has supported 145 individuals and media support was provided by more than 40 editors including Newsweek, Forbes, Glamour and more. The raised funds allowed to implement the project of establishing the Wisłaki brand. In December 2014, the first collection of clothes was created. The collection included clothing for children and adults as well as accessories. The protagonists of the collection, presented in the form of copyrighted works, are protected animals of the Vistula banks, including the cormorant, the white-tailed eagle and the beaver. The brand's mission is to promote eco-conscious fashion and environmental education. What is important, 5 zł from the sale of each clothing item is transferred to the National Society for the Protection of Birds as a support for the protected species. The clothing can be purchased in the online store³ and during fashion fairs (e.g. Slow Fashion). Wisłaki are also present abroad – in the offer of stationary and internet stores in Belgium, Germany, Denmark, the Netherlands and Switzerland and the UK.

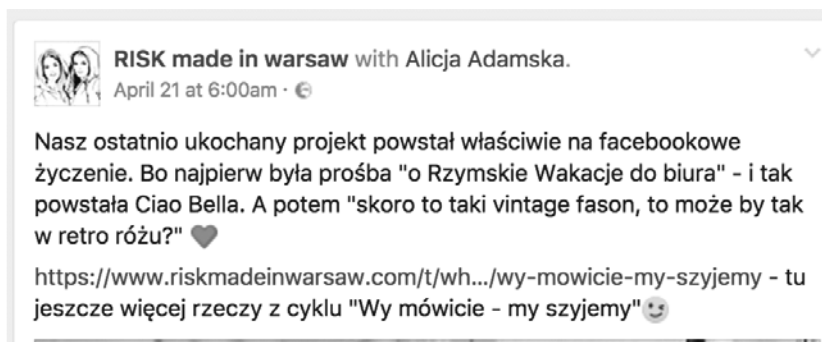
The brand carries out marketing communications primarily through social networking sites and, in particular, Facebook and Instagram. On the affiliate Facebook page of the brand – in addition to promotional entries – photos of fans in the exclusive clothing can be found.

³ More information on: <http://wislaki.com/strona/wislaki>.

Risk made in Warsaw

The Risk made in Warsaw brand was established in 2011 in Warsaw. The founders, Antonina Samecka and Klara Kowtun, design their own collections and organize the production of clothes. The clothes are sewn in Poland and the materials used are made to order by the two designers. Currently, Risk made in Warsaw offers women's, men's and children's collections. The company started selling from Internet commerce through their website and fashion websites, and now also has one stationary store in Warsaw. Risk made in Warsaw clothing is also available in boutiques throughout Poland and abroad: both online and at stationary stores in Finland, Germany, Switzerland and Italy.

Figure 1. Publication on the affiliate page of the Risk made in Warsaw brand



Source: retrieved on 24/04/2017, from: <https://www.facebook.com/riskmadeinwarsaw/>.

Marketing communications the brand is dominated by openness to dialogue with consumers, according to the motto “You say-we sew”. The customers have an influence on which models are present in the permanent brand collection. Risk made in Warsaw has active accounts on social networking sites (Facebook, Instagram) and the brand's affiliate page communicates with customers. The publications of the Internet users are dominated by requests for the restoration of a selected model, changing its shape or incorporating new colors into the offer. It should be emphasized that the brand meets the customer's wishes and is open to their suggestions. An example is the idea by one of the online customers – the “Ciao Bella” dress model (Fig. 1).

6. Conclusion

In conclusion, it should be emphasized that crowdsourcing allows companies not only to build relationships with their customers but to use their knowledge to improve their own products or create new solutions. This is particularly true of the fashion industry, which is constantly looking for inspiration, and increasingly focuses on products tailored to the needs of their potential users.

The examples selected for the discussion show the different varieties of crowdsourcing. Each of them is part of a wider approach to the analyzed concept. Zuzanna Górska is trying to personalize

her products, so she invites her customers to comment on how to adapt her purses to their needs. The Wisłaki project, on the other hand, is an example of the first initiative in the country, which was created within the framework of crowdfunding. The founders of the Risk made in Warsaw project sew clothes for customers' orders and to a large extent use their knowledge in creating new collections.

On the subject of discussion, it can be concluded that Polish fashion representatives are trying to build their business models using crowdsourcing. This concept may not always be the guiding theme of all business decisions. However, the analysis of selected examples proves that crowdsourcing is applicable in the national fashion industry.

Bibliography

1. Grzesiuk, A. (2014). Marketing spersonalizowany w handlu detalicznym. Koncepcja i doświadczenia rynku brytyjskiego. *Marketing i Rynek*, 8, 844-851.
2. Howe, J. (2006). The Rise of Crowdsourcing, *The Wired*. Retrieved on 20/04/2017, from: <http://www.wired.com/2006/06/crowds/>.
3. <http://wislaki.com/>. Retrieved on 06/04/2017.
4. <http://www.ncbr.gov.pl/fundusze-europejskie/poir/konkursy/konkurs112-2016innotextile/>. Retrieved on 06/04/2017.
5. <http://www.offer.demish.com/pl/#>. Retrieved on 06/04/2017.
6. <https://www.facebook.com/riskmadeinwarsaw/>. Retrieved on 06/04/2017.
7. <https://www.riskmadeinwarsaw.com/>. Retrieved on 06/04/2017.
8. <https://zuziagorska.pl/>. Retrieved on 06/04/2017.
9. Jemerced (2014). *Poznaj 6 najciekawszych modowych aplikacji na telefon*. Retrieved on 06/04/2017, from: <http://www.jemerced.com/poznaj-6-najciekawszych-modowych-aplikacji-na-telefon/>.
10. Krawiec, W. (2014). Crowdsourcing – czynniki motywujące tłum do działania. *Marketing i Rynek*, 4, 14-21.
11. *Our Top 10 Crowdsourced Fashion Sites* (2012). Retrieved on 03/05/2017, from: <http://www.fashionnotes.com/content/2012/07/the-top-10-crowdsourced-fashion-sites/>.
12. Pakus, A. (2014). Wykorzystanie crowdsourcing w sferze usług – możliwości i ograniczenia. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 353, 132-144.
13. Pomykański, A. (2001). *Zarządzanie innowacjami*. Warszawa: PWN.
14. Rudny, W. (2015). Nowe modele biznesowe w branży modowej. *Zeszyty Naukowe Politechniki Śląskiej. Seria: Organizacja i Zarządzanie*, 83, 573-583.
15. Sempruch-Krzemińska, K. (2014). Fast fashion – przyszłość branży mody? *Marketing i Rynek*, 2, 25-31.
16. Siemens (2011). *Jak przekształcamy proces tworzenia innowacji w branży odzieży, obuwia i sprzętu sportowego?* Retrieved on 06/04/2017, from: https://www.plm.automation.siemens.com/en_pl/Images/5832_tcm801-21443.pdf.
17. Szwarz, N. (2010). Od masowej komunikacji marketingowej po personalizację w e-marketingu. *E-mentor*, 3(35).
18. Szymkowiak, A. (2014). E-kastomizacja produktów – wykorzystanie narzędzie on-line w e-commerce. *Marketing i Rynek*, 8, 933-938.

19. Tapscott, D. (1998). *Growing Up Digital. The Rise of the Net Generation*. New York: McGraw Hill.
20. Toffler, A. (1997). *Trzecia fala*. Poznań: Wydawnictwo Kurpisz.
21. Wawrzyczek, P. (2013). *Pokaż Swój Sklep [PSS]: Zuzanna Górską, zuziagorska.pl*. Retrieved on 06/04/2017, from: <http://www.ekomercyjnie.pl/pokaz-swoj-sklep-pss-zuzanna-gorska-zuziagorska-pl/>.

PART IV

APPLICATION PROBLEMS OF MODERN MANAGEMENT



Chapter 33

The Scope of the Implementation of Operational Tasks in the Field of Knowledge Management within the Rural Development Framework¹

Anna Krakowiak-Bal, Paweł Łukasik, Bogusz Miś, Janusz Niezgodą, Urszula Ziemiańczyk

1. Introduction

The concept of sustainable development presupposes striving to meet economic and social needs while at the same time caring for the environment. The Europe 2020 strategy, which is a comprehensive economic policy agenda, is based on three priorities: smart, sustainable and inclusive growth (Carayannis & Rakhmatullin, 2014; European Commission Europe 2020). Under the post-industrial economy, the development mechanism is based on the creation, exchange and use of information and knowledge, the use of advanced technology, innovation and creativity (Ziemiańczyk et al., 2013). Therefore knowledge management is a tool supporting development activities.

Knowledge and knowledge management are the factors that determine innovation capacity of an enterprise (Krstić & Petrović, 2012). Moreover, innovation is an idea, which can stimulate knowledge creation through knowledge exchange to facilitate “learning and unlearning” within innovation system (Casaramona et al., 2015; Lockett & Johnston, 2008). Knowledge management is a concept developed in order to increase the competitiveness of business entities. Knowledge management is a tool for making better use of available knowledge resources and for eliminating knowledge gaps through the absorption of knowledge and its creation, and this inter alia leads to the development of the organization’s functioning, improves economic performance, reduces risk, develops relationships with the environs, acquires innovative organizational solutions and product innovations. The scope of applying knowledge management in companies aroused interest in this concept beyond business activity. For example, determining the potential use of knowledge management

¹ The research is a part of the project “Knowledge management in the process of building competitiveness and innovation of rural areas according to the rules of sustainable development – empirical verification on an example of the Malopolska voivodeship”, financed by the National Science Centre under Decision No DEC-2011/01/D/HS4/05909.

within the rural development framework in Poland. The first results of the research are *inter alia* shown in studies conducted by A. Krakowiak-Bal and U. Ziemiańczyk (2016), in which knowledge transfer in 25 selected communities was analysed and the sources of knowledge used by the entities involved in rural development were studied (Ziemiańczyk & Krakowiak-Bal, 2017). Knowledge management involves executing management functions oriented on the resources of the organization, the processes involving knowledge and conditions of their course. As part of knowledge management, it is important, among other things, to properly plan, organize and control the course of core processes involving knowledge within the organizational system and between the system and its environs.

The aim of this article is to present the research results and conclusions regarding the scope of implementation of selected processes involving knowledge (operational tasks of knowledge management) executed within the rural development framework. Attention was paid to the processes of identification, transfer (acquisition, disclosure, dissemination and sharing of knowledge), collection, creation and application of knowledge.

2. Characteristics of research subject and research hypotheses

The rural development framework is a compound of interrelated institutions executing rural development tasks in a way that enable to achieve economic, social, production and ecological goals. The study covered the following institutions: MARD (MRiRW) – Ministry of Agriculture and Rural Development, ARMA (ARiMR) – Agency for Restructuring and Modernization of Agriculture, AMA (ARR) – Agricultural Market Agency, AAC (CDR) – Agricultural Advisory Centre, LAG (LGD) – Local Action Groups, AAC (MODR) – Agricultural Advisory Centre in Małopolska Region, LAACs (ODR) – Local Agricultural Advisory Centres, District Offices (POW), MO (UG) – Municipal Offices, UMWM – Marshal's Office of the Małopolska Region, University of Agriculture (UR). These institutions are key elements of the rural development framework in Poland.

It is assumed that the knowledge management system is a compound of rules, methods, resources, information sets, people and networks, their interrelations which allows to adopt and implement knowledge management strategies and tasks to achieve organizational goals (Miś 2011). The processes (Miś, 2011) were the subject of the study:

1. Identifying knowledge that is the localization of knowledge inside and outside the organization.
2. Knowledge transfer which consists of the following processes:
 - acquisition of knowledge – gaining knowledge from various resources (internal and external),
 - knowledge disclosure – a reverse process to knowledge acquisition that is knowledge transfer aimed at specific people,
 - dissemination of knowledge – a developed form of knowledge disclosure aimed at creating a publicly accessible resource from a given knowledge domain,
 - knowledge sharing – mutual knowledge transfer in the communication process,
 - collection of knowledge – systematic collection of knowledge in codified and (or) well-established form.
3. Creation of knowledge – the process of creating new knowledge.
4. Knowledge application – this is the use of knowledge. Creating visions and concepts of the organization, creating products and services as well as technology and its application, solving daily problems and executing current tasks are the main areas where knowledge is applied.

It was assumed that despite the lack of official findings in knowledge management in the institutions in question and the lack of knowledge management system under the rural development framework, knowledge management occurred and knowledge processes were executed, but both of these elements might have been incognisant to the employees.

The following research questions were acknowledged:

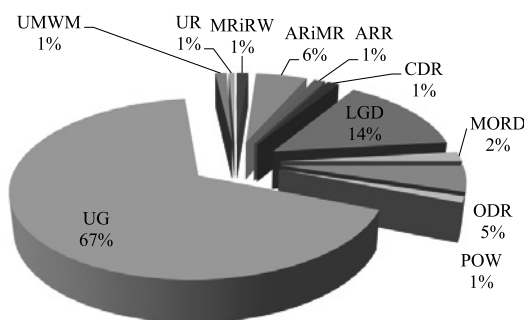
1. What are the primary sources in which employees seek knowledge to carry out rural development tasks?
2. Where do the institutions of the rural development framework acquire the knowledge necessary to perform the tasks?
3. What are the basic impediments in acquiring the knowledge needed to perform the tasks?
4. What are the most commonly used methods of knowledge disclosure?
5. What are the most common methods of knowledge dissemination?
6. What are the most common ways of collection of knowledge?
7. Which processes most often result in creation of new knowledge?
8. What influences employees' behaviour during execution of tasks?

The following hypotheses were proposed:

1. Knowledge which enables employees to accomplish tasks is most often sought on the Internet.
2. Legal acts are the most common source of knowledge necessary to execute tasks in the area of rural development.
3. The main impediment in the process of acquiring knowledge indispensable to accomplish tasks are the recurrent changes in legislation.
4. Phone calls and electronic mails (e-mails) are the basic means of knowledge disclosure with others.
5. Web sites development is the most common method of knowledge dissemination.
6. Knowledge is mostly gathered in a codified form in electronic documents.
7. New knowledge is most often created while executing projects connected with the development of rural areas and creating conditions for the development.
8. Knowledge is the basic factor that drives employees during execution of tasks.

The survey in electronic form was adopted as the research method. 168 representatives of the institutions in question participated in the study (Fig. 1).

Figure 1. The structure of respondents participating in the survey



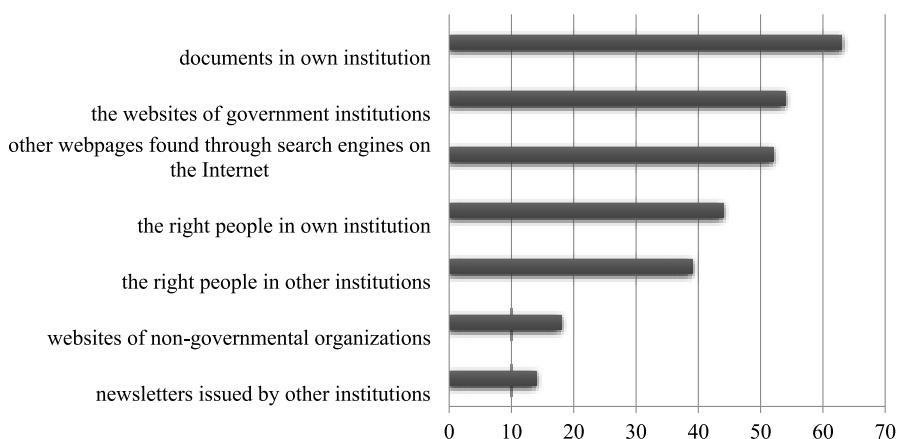
Source: own study.

3. The research results

In order to answer the first research question, an attempt was made to determine the rudimentary knowledge sources that employees use to perform assigned tasks. The results are shown on Figure 2.

As the results of the study illustrate, 63% of respondents indicated that documents in their own institutions were the most commonly used source of knowledge. Frequent (54%) use of government websites is also noteworthy. This may prove that they were more and more valuable source of knowledge in the form of information on websites, data in databases, documents from document databases, etc.

Figure 2. The most frequently used source of information indispensable to complete the tasks (%)



Source: own study.

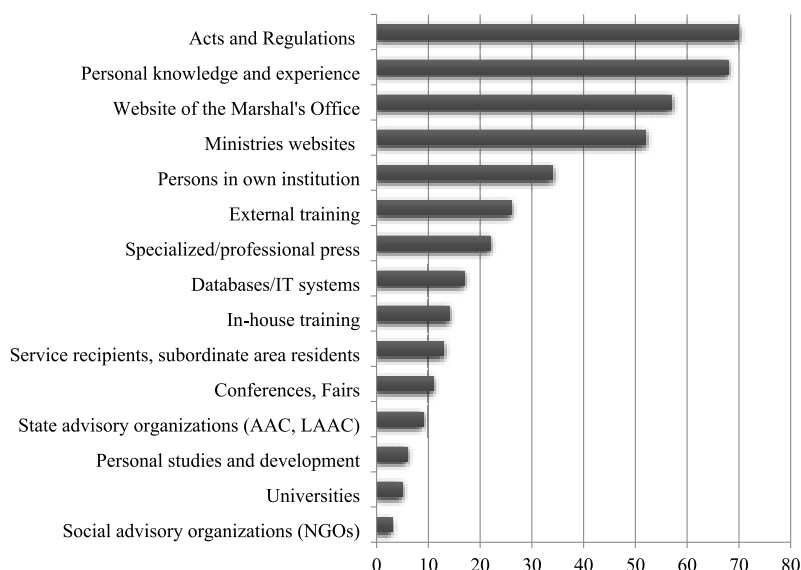
Search engines were the third most commonly used way of finding knowledge which probably resulted from the need to identify the organizations' websites where necessary materials were disclosed. It is worth noting that both the government institutions and other organizations' websites were the most commonly used source of knowledge. The bewildering fact is that amongst often used sources, people in the same institution or in the environs came only fourth and less than a half (44%) respondents resorted to such methods.

Similarly, in the case of acquiring information from people from other institutions, only 39% of respondents often used such information source. Newsletters were the least frequently used source of knowledge.

Knowledge acquisition can take place from different sources and using different methods. Figure 3 shows the sources that were considered in the study.

Nowadays, acquiring knowledge requires the use of multifarious sources. Some of them are used frequently, others intermittently.

Figure 3. Important sources of knowledge acquisition (%)



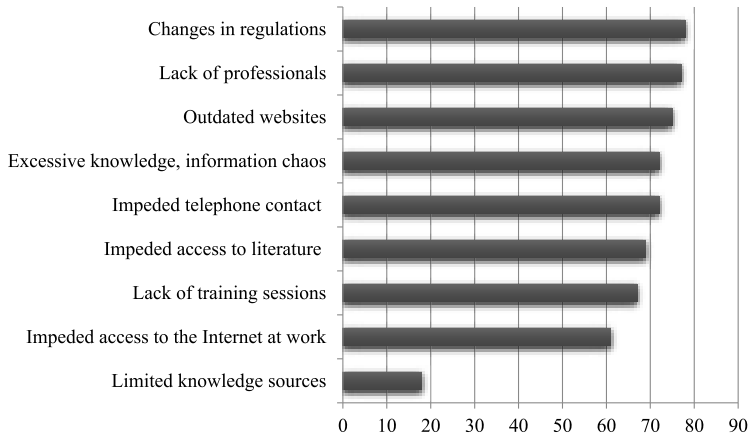
Source: own study.

In investigated institutions in order to acquire knowledge the following sources were often used: acts and regulations (70%), personal knowledge and experience – personalised knowledge (68%), Marshal Office websites and telephone contacts (57%), ministries websites including the Ministry of Agriculture and Rural Development ones and telephone contacts (52%), employees of the same institution (34%). This shows that in the aforementioned institutions knowledge was obtained mainly from the *top* that is from superior institutions and from legal acts. A crucial role was also played by a kind of retrospection which enabled to gain knowledge from experience. The results of research and development studies carried out in the institutions in question, universities, commercial companies, residents of villages, non-governmental organizations were undervalued sources of knowledge during the process of knowledge acquisition and were relatively seldom exploited.

Acquiring knowledge was also related to various problems that are indicated in the Figure 4.

Most respondents indicated that the basic problem of the knowledge acquisition process were recurrent changes in legislation (78% responses in total). Another problems were: the lack of the competent persons (77%) and information chaos (72%). Apart from this, the outdated information on websites (75%) and impeded access to the Internet (61%) were indicated, however such problems should not have occurred in the type of institutions in question. The limited knowledge sources (only 18%) were identified as the least frequent problem.

Figure 4. Knowledge acquisition problems (%)



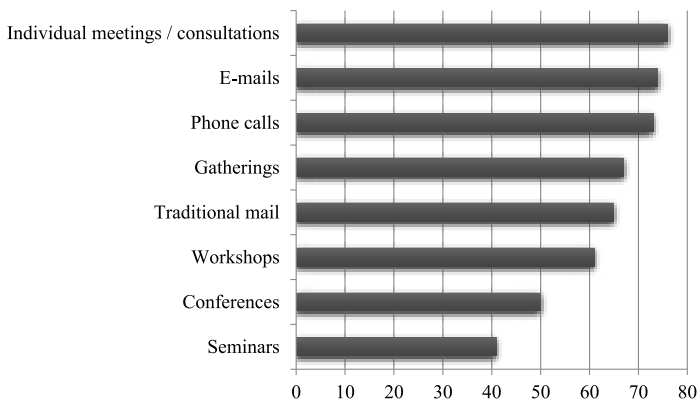
Source: own study.

The other side of knowledge transfer is its disclosure. The scope of using various knowledge transfer methods in this area is presented in Figure 5.

Of the knowledge disclosure tools presented in Figure 5 (including knowledge sharing methods), most of the surveyed entities benefited to a limited extent from seminars and conferences. The use of the remaining tools ranged from 61 to 76%. Among these, meetings and individual consultations (76%), emails (74%) and telephone conversations (73%) were often applied. It indicates, that personal contacts are important in the process of knowledge disclosure. In the group of used methods, there were also gatherings (67%), traditional mails (65%), and workshops (61%).

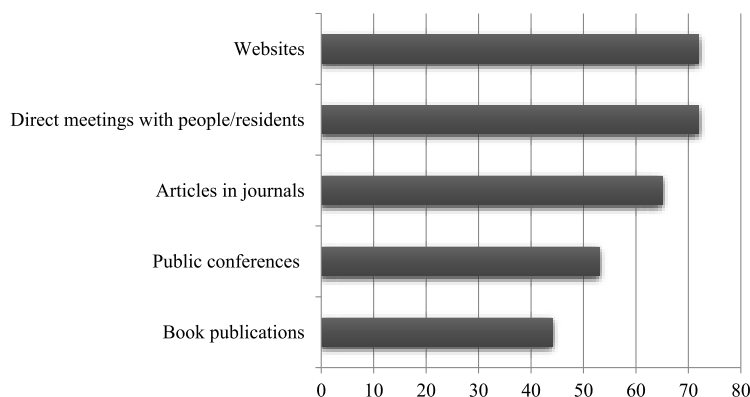
Another process of knowledge transfer is the dissemination of knowledge in the environs. The use of knowledge dissemination tools (including knowledge sharing) as a percentage is shown in Figure 6.

Figure 5. The scope of the use of knowledge disclosure methods (including knowledge sharing) (%)



Source: own study.

Figure 6. The methods of knowledge dissemination (including knowledge sharing) (%)

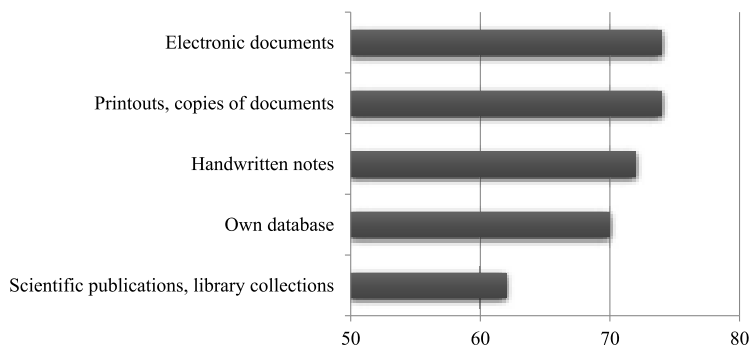


Source: own study.

The collective use of particular methods of dissemination of knowledge pointed to the great activity of entities in this field. Over 70% of the studied institutions exploited websites and direct meetings with residents. While the first method seems quite obvious, the frequent use of meetings with residents in order to disseminate knowledge is a remarkable phenomenon and proves large social capital of the investigated institutions. Articles in journals (65%), nationwide conferences (53%), book publications (44%) were knowledge dissemination methods used by a minority of the studied institutions.

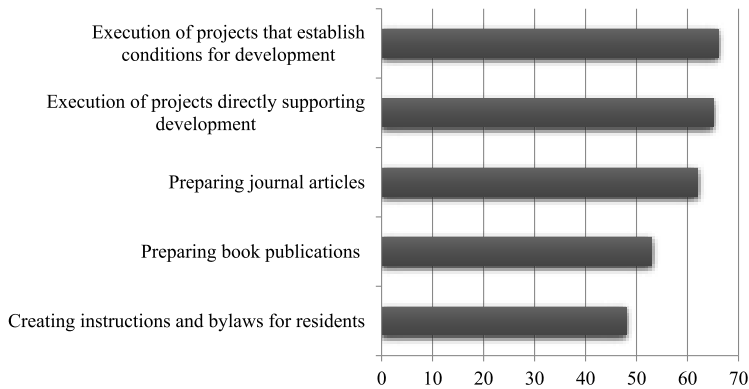
In order for knowledge to be communicated and disseminated it must primarily be collected. Knowledge collection is also essential for creation of new knowledge resources, e.g. by pooling existing resources. The use of different forms of collected knowledge in the studied institutions is shown in Figure 7. As it can be seen from the collected data, the most common way of knowledge collection was saving documents in electronic form on computer disks. Some of them were undoubtedly databased. On the other hand, traditional methods of knowledge collection in the form of notes (a total of 72%) and printouts as well as copies of documents (74% respondents) were also applied.

Figure 7. The scope of use of various forms of collection of knowledge (%)



Source: own study.

Figure 8. The processes that create new knowledge for rural development

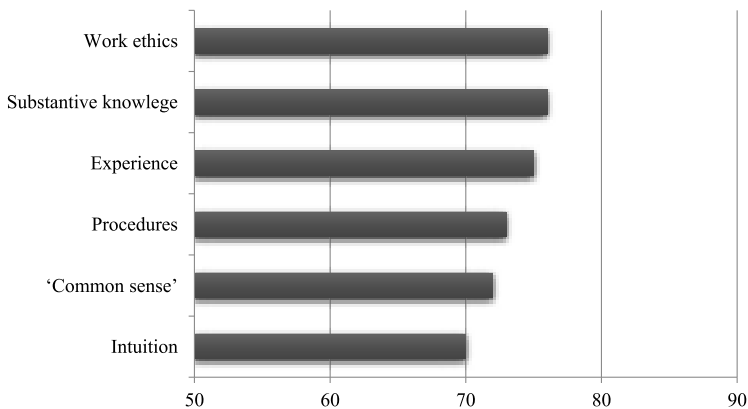


Source: own study.

The execution of knowledge creation activities in the investigated institutions is presented in Figure 8.

New knowledge created in studied institutions was most often localized in projects that created conditions for rural development and, albeit slightly less frequently, projects directly supporting this development. Creation of new knowledge while writing articles and books was much less frequent not to mention instructions and bylaws for residents of subordinate area which appeared to be rare.

Figure 9. Factors determining the performance of tasks in practice (%)



Source: own study.

In total, while performing tasks, the employees of the institutions in question most often were driven by work ethics and substantive knowledge (76%), followed by experience which was mentioned by 75% of the respondents, then procedures (73%) and intuition (70%) (Fig. 9).

4. Research conclusions

As for the first research question, it was hypothesized that employees performing the tasks would look for the necessary knowledge mostly on the Internet. This hypothesis was positively verified. The study, however, highlights the fact that the places where the required knowledge sources were sought, were scattered and that there was no systematic approach in this area. Newsletters seemed to be a kind of assistance to workers, but it is evident that their effectiveness was limited since they were rarely exploited.

The second research question was: “Where do the institutions of the rural development framework acquire the knowledge necessary to accomplish tasks?”. Here, as expected and hypothesized, it was confirmed that these were legal acts. In Polish conditions (that is the bureaucratization of the system) it should be considered as a healthy situation.

While searching for reasons for impediment in the acquisition of the knowledge needed to carry out tasks within the rural development framework, it was found that the primary barrier were the recurrent changes in legislation. This positively verified the hypothesis and came as no surprise due to the fact that in Poland recurrent change in legislation applies to other areas of social and economic activity making a serious impediment to the entities in the implementation of tasks and development activities.

The next hypothesis referred to knowledge disclosure and knowledge sharing and was as follows: “Phone calls and electronic mails (e-mails) are the basic methods used to share knowledge with others (people, institutions)”. It was also positively verified. It is worthwhile, however, that face-to-face contacts took place and knowledge sharing was very common during direct interpersonal communication in the investigated institutions.

Regarding the research question related to the knowledge dissemination methods, the hypothesis proposed that the transfer of knowledge was most often accomplished via websites. It was positively verified. A widely used method of knowledge transfer were direct meetings with residents which is a great asset. It fosters interactions and knowledge sharing.

As for the ways of knowledge collection, the hypothesis proposed that knowledge was mostly collected in a codified form in electronic documents. It was positively verified, but substantial part of knowledge was collected in a traditional way (printouts and copies of documents, notes). It is difficult to infer whether the methods were a remnant of former methods of knowledge collection or whether they were the result of low level of computerization of work, or whether they resulted from the fear of losing electronic documents, e.g. due to computer breakdowns.

As part of the penultimate research question, the hypothesis that the new knowledge was most often created when executing projects related to rural development and creating conditions for the development was confirmed. This came as no surprise, as the remaining processes considered, which should trigger knowledge creation, were much less frequent in the examined institutions.

The last research question was truly fascinating, because it dealt with factors that influenced employees’ behaviour during execution of tasks. The hypothesis put forward, as recommended by literature, was: “Knowledge is the primary drive during the execution of tasks”. That should be the case anyway. It can be assumed that the hypothesis was positively verified (this was also verified by responses relating to experience which is a component of knowledge, too), but the results of the study showed that work ethic, procedures, common sense and intuition played a significant role, too. One can therefore formulate another research question: ‘Should fixed

procedures, in practice, be a significant factor conditioning the action or should action be adjusted to the situation?'.

It is beneficial, however, that work ethics and common sense were taken into account and that these factors were so strongly emphasised by respondents.

5. Conclusion

All hypotheses were positively verified. The way they were formulated was based on critical thinking and experience of the research team. The lack of systematization of knowledge management system and its solutions concerning methods of implementing basic knowledge processes is evident. The knowledge management system is dispersed and practically it does not have supported in the tasks' realization by dedicated IT tools designed to handle knowledge-driven processes. This is proved by responses related to knowledge acquisition from IT systems databases. The frequency of their use is low. This may indicate either a low level of their functionality or a high degree of specialization. Knowledge management system practitioners use the most commonly available online sources of knowledge (for example, acts published in Public Information Bulletins). It should therefore be concluded that there is much to do in this regard, which would certainly help to better execute tasks and make better use of the large amounts of EU funding for sustainable development of the country and for rural development.

Respondents significantly highlighted the problem of co-workers' incompetence. This incompetence, on the one hand, results probably from the term of office of the authorities in the institutions managed by the local governments and on the other, from prevalence of occurrence and tolerance of pathology in the management of human resources in Poland. This is indicated by a wide range of empirical studies (see: Janowska, 2011; Miś, 2014). The studies showed that inappropriate employee selection was quite common. Therefore, lack of knowledge about the possibilities of using computer technology while performing tasks and hiring incompetent employees, grateful for employment and being compliant and obedient to superiors are quite common phenomena.

In conclusion, it should be noted that the knowledge management system functioning in rural development requires in-depth research followed by a comprehensive approach in its redesign and adaptation to existing conditions.

Bibliography

1. Carayannis, E.G., & Rakhmatullin, R. (2014). The Quadruple/Quintuple Innovation Helixes and Smart Specialisation Strategies for Sustainable and Inclusive Growth in Europe and Beyond. *Journal of the Knowledge Economy*, 5(2), 212-239.
2. Casaramona, A., Sapia, A., & Soraci, A. (2015). How TOI and the Quadruple and Quintuple Helix Innovation System Can Support the Development of a New Model of International Cooperation. *Journal of the Knowledge Economy*, 6(3), 505-521.
3. *European Commission Europe 2020*. Retrieved on 26/05/2017, from: http://ec.europa.eu/europe2020/index_en.htm.
4. Janowska, Z. (Ed.). (2011). *Dysfunkcje i patologie w sferze zarządzania zasobami ludzkimi*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.

5. Krakowiak-Bal, A., & Ziemiańczyk, U. (2016). Rozmyta jakościowa analiza porównawcza (fsQCA) w ocenie transferu wiedzy. *Infrastruktura i Ekologia Terenów Wiejskich*, 3/2/2016, Polska Akademia Nauk, Oddział w Krakowie, Komisja Technicznej Infrastruktury Wsi.
6. Krstić, B., & Petrović, B. (2012). The Role of Knowledge Management in Increasing Enterprise's Innovativeness. *Economics and Organization*, 9(1), 93-110.
7. Lockett, N., & Johnston, L. (2008). *Exploring the Role of University in Communities of Innovation: A Systems Approach*, Proceeding of the 2nd International FINPIN 2008 Conference at Series C Articles, Lahti University.
8. Mikuła, B. (2011). Istota zarządzania wiedzą w organizacji. [in:] A. Potocki (Ed.), *Komunikacja w procesach zarządzania wiedzą*. Kraków: Uniwersytet Ekonomiczny w Krakowie.
9. Mikuła, B. (2014). Dysfunkcje w zarządzaniu zasobami ludzkimi w MSP w Polsce. [in:] J. Kardas (Ed.), *Zarządzanie kapitałem ludzkim w warunkach niestabilności otoczenia*. Studio Emka.
10. Ziemiańczyk, U., & Krakowiak-Bal, A. (2017). Learning Organizations as a Part of the Process of Building of the Competiveness in Rural Areas. *International Journal of Business and Emerging Markets*, 9(1), 19-32.
11. Ziemiańczyk, U., Krakowiak-Bal, A., Mikuła, B., & Woźniak, A. (2013). Zarządzanie wiedzą w procesie rozwoju obszarów wiejskich, *Infrastruktura i ekologia terenów wiejskich*, 3(4), 353-369.

Chapter 34

Knowledge Sharing in Organizations Supporting Rural Development – Research Results¹

*Anna Pietruszka-Ortyl, Urszula Ziemiańczyk,
Anna Krakowiak-Bal, Bogusz Mikuła*

1. Introduction

The most significant increase in interest in the knowledge management concept took place in the 1990s. So far the development of this idea has extended into several stages – most often three generations of knowledge management are identified. The current third generation of knowledge management focuses on *knowledge for the future* and involves the democratization of knowledge while at the same time considering the distribution of knowledge which allows for evolutionary development. It is based on creation of common contexts, and interdependence, context, content and level of abstraction are the key to knowledge sharing (Fic, 2012, pp. 371-383). From the perspective of the organization, some of the most advantageous knowledge management strategies, leaving the conditions of their implementation aside, are those based on the creation of new knowledge and its transfer. The use of these strategies is only possible if open-minded individuals who work for an organization are willing to share knowledge with other employees and the organization or when a company engages in cooperative learning in order to share knowledge at an inter-organizational level. Hence, nowadays organizations seeking to enter the position of knowledge-based enterprises are making efforts to analyse and diagnose the factors that influence openness in knowledge sharing at each and every level.

The aim of the article is to present and interpret research results on knowledge sharing solutions and knowledge recipients in organizations supporting rural development. The data was obtained through questionnaires using CAWI (computer assisted interview with the use of the web).

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The questionnaire referred to knowledge management tasks and was addressed to 168 persons working in institutions supporting rural development in the Małopolskie Voivodship.

The following research hypotheses were put forward:

1. the type of organization determines the target audience/recipients of the knowledge of the organization,
2. different actors supporting rural development share knowledge resources with each other,
3. knowledge sharing is a frequent process within entities (organizations), regardless of the type of institution,
4. face-to-face meetings are the most commonly used knowledge sharing tool,
5. lack of a knowledge sharing system is evident in the analysed entities.

2. Theoretical foundations of knowledge sharing

The importance of knowledge sharing is significant – tacit knowledge sharing is the initial phase of the ideal organizational model of knowledge creation according to I. Nonaka and H. Takeuchi (2000, pp. 110-116). Knowledge transfer and sharing are perceived as the most crucial activities in the knowledge management cycle proposed by Walczak (2009, p. 5). Knowledge sharing based on retrieving and finding and then communicating and explaining the knowledge possessed by individual members of a community functioning within the social community is also the first stage in the cycle of creation of knowledge of community according to M. Kodama (2009, pp. 236-237).

In a very narrow sense, knowledge sharing is reduced to transmitting/communicating information. However, this process should be perceived as much more complex, since its essence is the transmission of ideas and common understanding of information. Hence, the precise term for knowledge sharing is *internalisation* of knowledge at the recipient level or re-creation of knowledge (on the sender side) (Fazlagic, 2011, p. 8).

E.Z. Taylor and U.S. Murthy (2009, p. 154) define knowledge sharing as a process that leads individuals through thinking or using their own knowledge to help others transform their own knowledge resources to solve problems that arise from specific circumstances.

Knowledge sharing², then, is a process that is based on the mutual transfer of personalized overt and tacit knowledge. It can take place through a process of communication or through mutual cooperation via direct contact through a dialogue or observation or cooperation resulting in shared experiences. The essence of knowledge sharing in an organization is a process that is at least two-sided, in which individuals exchange their knowledge and at the same time create new knowledge. This is a necessary process in transforming individual knowledge into organizational knowledge (Kozuch & Lenart-Gansiniec, 2016, p. 306).

It is also worth stressing that knowledge sharing is by nature a voluntary and often spontaneous process that is difficult to be included in job descriptions and to be appropriately rewarded due to its intangible and immeasurable character. This is the result of individual interdependencies between individuals, at a keystone of which are mutual congruence, personality and competence match as well as task match, and the individuals relationships with organizations that are influenced by the degree of involvement in the enterprise and the extent of participation in decision-making (Lin, 2007, p. 458).

² A detailed review of the definition of knowledge sharing is presented by Rudawska (2013).

As a consequence, controlled knowledge-sharing, being under the influence of business managers, can only take place at the organizational level. At an individual and team level, knowledge sharing should only be considered in shaping the right context for communication openness.

The implementation of the knowledge sharing process at an individual level is connected to the exchange of knowledge through personal contacts and in terms of functioning in the social network, which is perceived as the basic plane of knowledge circulation. The biggest challenge in this process is building trust and relationships between parties of the process (Dohn, 2016, p. 84).

To conclude, the following factors determine the tendency to share knowledge, both in the individual, team and organizational sense (Fazlagic, 2011, pp. 8-9):

- network membership – entities that are members of network, supply chains, business organizations and associations are more likely to share their knowledge within their own community than non-affiliated entities,
- physical distance between entities – contacts between companies and employees are more intense if they are closely located,
- institutional similarity – companies that are organized in a similar way are more likely to share knowledge,
- similarity of knowledge resources – if the sender and receiver have similar knowledge its exchange is facilitated,
- relational similarity – people and companies with similar biographies/histories are more likely to share knowledge.

Determinants of knowledge sharing efficiency can be analysed in more detail at employee and organizational levels. Then, from the employee level, motivational factors based on the integration of the individual with the objectives of the organization and the behavioural factors based on good will and altruism are identified.

From the level of organisation, structural (directly related to the structure of the organization), cultural (as a derivative of the knowledge-sharing culture), communication, technological and management factors are considered (see: Kożuch & Lenart-Gansiniec, 2016, pp. 310-311).

As a result of launching knowledge-sharing factors appropriate for organizational context, the company gains tangible results in the form of (Rudawska, 2016, pp. 99-100):

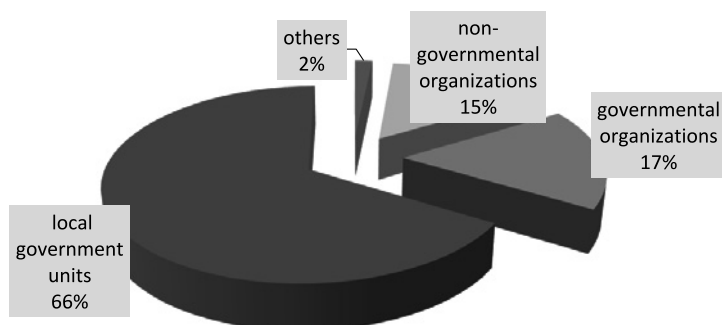
- a higher level of dissemination of knowledge,
- greater common knowledge leading to a similar understanding of reality, which stimulates cooperation by providing the basis for innovative solutions,
- mutual learning,
- improved cooperation between departments,
- development of existing knowledge resources,
- keeping employees in the organization.

3. Knowledge recipients in rural areas

To identify and specify rural knowledge recipients, the relevant question was addressed to those involved in the development of these areas. The structure of the investigated entities that identified the recipients of knowledge of their institution is presented in Figure 1. Representatives of local government units that is the municipal offices and the Marshal's Office comprised the largest group of respondents. Employees of the Agricultural Market Agency, the Agency for Restructuring and

Modernization of Agriculture, the Ministry of Rural Development and Agriculture, Agricultural Advisory Centres were the representatives of government institutions. Employees of the Local Action Groups, actively involved in rural development, were the representatives of non-governmental organizations. County governors and universities comprised the group of others.

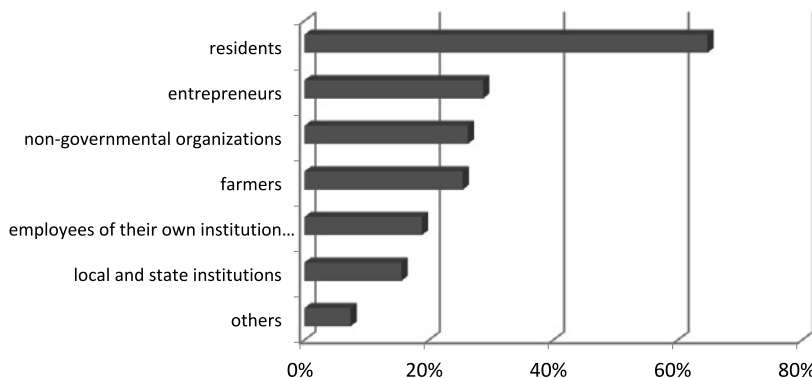
Figure 1. Structure of the analysed entities (institutions and organizations)



Source: own study.

The structure of the investigated units determines to a large extent the type of knowledge recipients made available by these units.

Figure 2. Recipients of the knowledge resources of the analysed entities



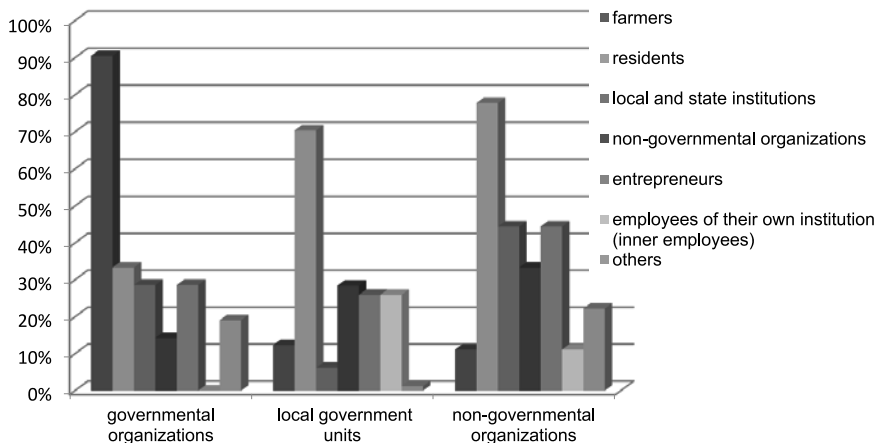
Source: own study.

Residents (65% of respondents indicated them as the main recipients of their knowledge), entrepreneurs (29%), other governmental and local institutions (42%), farmers (25%) and co-workers of the same organization (19%) comprised the main groups of recipients to which knowledge resources were addressed (Fig. 2).

On the other hand, when analysing the recipients of knowledge, according to the types of the subjects examined, a considerable variation was observed. Governmental institutions shared their knowledge mainly with farmers. Residents acquired knowledge from both local government units

and NGOs. This is related to the basic tasks of these institutions which are primarily concerned with the needs of the local community.

Figure 3. Recipients of knowledge according to different types of subjects



Source: own study.

It can also be observed that various types of institutions are reciprocal to their knowledge resources. This demonstrates the cooperation of these institutions, knowledge transfer between them and justifies the possibility of building a knowledge management system among institutions involved in rural development.

It was also found that in the local government units and non-governmental organizations, the recipients of knowledge of these institutions are also employees of these institutions.

4. Tasks in the knowledge management processes and knowledge sharing in practice in the investigated organizations

Knowledge management processes can be analysed at an inter-organizational, organizational, team and single post level. Table 1 presents data of respondents' activities related to the different knowledgesharing processes. The respondents were employees of rural development support units.

Table 1. Actions carried out at a given post as part of knowledge management processes

Activity	Yes	No	Hard to say
1. Location of information, search for knowledge	73	0	27
2. Finding solutions, creating new knowledge	67	2	31
3. Downloading files, documents, information, knowledge; holding conversations to gain the required knowledge	74	0	26
4. Disclosing knowledge to people concerned via conversations, trainings, consultations, etc. (the recipient is known)	69	2	29

5. Wide promotion, dissemination of knowledge through publications, articles, web pages, etc. (recipient is unknown)	60	11	29
6. Collaboration based on close contact with another person (other people) and conscious sharing of knowledge resulting from experience (mostly in conversations)	70	2	28
7. Collection, selection, saving, printing, updating the acquired knowledge	72	0	28
8. Use of knowledge resources to accomplish tasks required by the job	70	2	28

Source: own study.

It can be concluded from the data presented in Table 1 that most of the people employed in rural development organizations primarily acquired knowledge in their daily work by downloading files, documents, information and knowledge (74%), by locating information and searching for knowledge (73%), by handling collection, selection, recording and updating knowledge (72%), by cooperating with other people and sharing knowledge resulting from their own experience (70%), by using knowledge resources to perform tasks assigned to them (70%), by disclosing knowledge to interested people through conversations, trainings, consultations (69%), by finding solutions and creating new knowledge (67%) and by widely propagating and disseminating knowledge through publications, articles and web sites (60%).

Due to the awareness of positive effects of knowledge sharing in the organization, the research conducted on the implementation of the concept of knowledge management in the subjects supporting rural development also focused on the analysis and diagnosis of internal knowledge sharing systems in the investigated entities.

Only 38% of respondents identified an internal knowledge sharing system. Some respondents explicitly emphasized that existing knowledge sharing mechanisms could hardly be called a system, but noted that specific practices existed and if in place they were widely utilized.

Both the level of individual knowledge sharing between individual employees and the meso level of knowledge sharing between the employee and the organization were identified. At the individual level, the following forms of knowledge sharing were recognised:

- cyclic (weekly, monthly, quarterly) meetings of employees to share information and experiences (73% of indications),
 - substantive support of experienced staff to newly appointed employees (34.5%),
 - permanent, ongoing exchange of information and mutual support in the atmosphere of cooperation and mutual trust (18% of indications),
 - team consultations in case of emergency assignments (7.5% of indications).
- As part of the knowledge sharing employee-organization setup, the respondents listed:
- employees contacts as part of cooperation between institutions (9% of indications),
 - in-house trainings (7.5% of indications),
 - reporting on the trainings and forwarding materials to organizations and to other workers who did not take part in them (6%).

The following knowledge sharing tools were identified as a result of the analysis of respondents' replies: conversations at workplace (91% of indications), e-mails (7.5%), intranet (1.5%), e-learning platform (3%) and broadcasts in local media (1.5% of indications). It was noted that knowledge sharing was often informal – respondents more often indicated substantive support than internal training. Tacit knowledge sharing seem to be more valuable and stimulating. Clearly, however, the need for greater use of IT sharing support is evident.

5. Research conclusions

The presented research results allowed for positive verification of the research hypotheses.

In essence, the type of organization (i.e. governmental, local government, non-governmental organization) determines the target audience of knowledge of the organization. This is largely due to the tasks assigned to these entities and allows for avoiding the duplication of activities of these entities. Governmental organizations, due to the implementation of agricultural assistance programs, share knowledge especially with farmers. In turn, local government and non-governmental units share their knowledge mainly with residents and entrepreneurs.

The next positively verified hypothesis was the occurrence of knowledge transfer between different types of the analysed entities. There is a horizontal and vertical flow of knowledge between subjects. They share knowledge with each other. Governmental units share knowledge with local governments and non-governmental units (horizontal) and with other governmental entities (vertical). Employees of non-governmental organizations are particularly active in sharing knowledge with other entities. The fact that knowledge transfer between individuals is bilateral seems to be important. Entities learn from each other.

By analysing the instruments used in the knowledge sharing process in subjects supporting rural development areas, it was found that face-to-face conversations were the most commonly used knowledge sharing tool. Solutions using new technologies (intranet, e-learning) were intermittently utilised.

At the same time the research indicated the lack of internal organized systems of knowledge sharing in the analysed entities. Knowledge sharing processes were unstructured and sometimes carried out inadvertently.

Referring to the results of the research conducted and suggesting directions for improvement, it should be emphasized that one of the basic purposes of knowledge management in the investigated units should be the construction of knowledge sharing system. Managers should be aware that in order to share knowledge effectively at the organizational level, it is primarily necessary to identify the outcomes to be achieved that will be the starting point for selecting the desired knowledge management strategies and appropriate attitudes as well as behaviours which need to occur if knowledge is to be shared. Sequentially, depending on the preferred activities, conditions should be created to encourage individuals to share their knowledge. It must be noted that studies show that the tendency to share knowledge is limited by personality due to psychological barriers (Maliszewska et al., 2010, p. 277).

Another important challenge should be the development of a knowledge sharing system that takes into account its inter-organizational dimension. It is necessary to stimulate knowledge sharing between the analysed units. The more so, the links between them indicate the characteristics of network structures and relationships.

However, creating organizational culture based on affirmation of knowledge sharing should be the starting point in the investigated units.

As part of operational solutions that motivate employees to share knowledge, managers can use the following solutions (see: Trenkner, 2010, pp. 796-797; O'Neil & Adya, 2007, pp. 418-422):

- emphasizing the approach of employees who willingly share their knowledge with others as positive and praising such employees in the presence of other workers,
- disseminating the rankings and statistics that register a person's contribution to the construction of knowledge resources of the organization,

- a periodic assessment system that takes account of (and rewards) employee attitudes related to knowledge acquisition, creation and sharing,
- trainings supporting the development of teamwork-based structures and developing skills for knowledge transfer and its dissemination,
- outsourcing the best employees and instructing them to play roles such as a teacher, a mentor, a master or a coach,
- trainings for managers aimed at knowledge sharing,
- referring to the inner moral obligation of the employee and the care of the common good rather than the self-interest (this attitude changes the specialist perception of knowledge as a private resource towards common source of the organization),
- encouraging spontaneous, informal meetings aimed at exchange of ideas, insights, suggestions, improvements, or at discussing ways to solve problems encountered at work (through communication systems, information technologies, etc.),
- creating places allowing for free exchange of ideas e.g. large kitchen areas which would encourage informal meetings for meals or coffee,
- using narrative techniques such as storytelling which contributes to revealing tacit knowledge,
- creating a climate that supports the networking of practitioners,
- various formal solutions having organizational character e.g. conferences, seminars at work, meetings of quality circle members, innovation groups meetings, practical workshops, autonomous groups, creative teams, employee meetings focussing on problems they have encountered.

Table 2. Barriers hindering the flow of knowledge in the organization

Organizational structure	People	Management methods
Rigidity	Resistance to change	Fear of giving power by delegation
Fragmentation of the organization	Lack of time	Resistance to questioning how a company operates
Separation of functional departments	No motivation to share knowledge	Inability to create the atmosphere of free exchange of ideas
Dominance of top-down communication	Inability to cooperate	Inability to build relationships based on trust and sense of community
No or minimal use of teamwork/ no bottom-up initiatives	Staff turnover	Inability to build teamwork
Lack of flexibility and autonomy	Insufficient emphasis on the process of on boarding	Lack of encouragement of communication which would lead to knowledge exchange

Source: (Gruszczyńska-Malec & Rutkowska, 2013, p. 59).

When considering the selection of appropriate instruments to stimulate knowledge sharing, managers should also be aware of specific barriers to knowledge flow in the organization. They can be identified, for example, in the organizational structure, people and in management methods (Tab. 2).

6. Conclusion

The importance of knowledge sharing increases as the significance and availability of knowledge in the modern economy grow. However, this process is strongly linked to social skills of employees. Therefore knowledge sharing that involves teamwork, communication and continuous

development of individuals and organizations seems important and valued in a knowledge-based economy and dynamically changing environment.

Individual engagement of each member of the organization in continuous development and knowledge expansion is absolutely vital. This will be possible when every member of the organization discerns the value of acquiring and sharing knowledge in the organization. The knowledge sharing culture is important for knowledge broadening and exchange of information both inside and outside the organisations supporting rural development and is a prerequisite for their innovative and dynamic development.

Bibliography

1. Dohn, K. (2016). Identyfikacja zakłóceń w procesie dzielenia się wiedzą na różnych poziomach łańcucha dostaw. *Zeszyty Naukowe. Organizacja i Zarządzanie/Politechnika Śląska*, 89, 81-93.
2. Fazlagić, J. (2011). Dzielenie się wiedzą wg psychologii ewolucyjnej i ekonomii behawioralnej. *Problemy Jakości*, 43(4), 8-12.
3. Fic, M. (2012). Rozwój zarządzania wiedzą – od pierwszej do trzeciej generacji. *Studia Ekonomiczne/Uniwersytet Ekonomiczny w Katowicach*, (118 Nauki o zarządzaniu-u początków i współcześnie), 363-389.
4. Kożuch, B., & Lenart-Gansiniec, R. (2016). Uwarunkowania skutecznego dzielenia się wiedzą na uczelni. *Zarządzanie Publiczne*, 4(36), 303-320.
5. Lin, C.P. (2007). To Share or Not to Share: Modeling Knowledge Sharing Using Exchange Ideology as a Moderator. *Personnel Review*, 36(3), 457-475.
6. Maliszewska, D., Bojar, I., Woźnica, I., Owoc, A., & Diatczyk, J. (2010). Psychologiczne aspekty dzielenia się wiedzą w miejscu pracy na przykładzie grupy pielęgniarek warszawskich szpitali. *Medycyna Ogólna i Nauki o Zdrowiu*, 16(2), 271-289.
7. Nonaka, I., & Takeuchi, H. (2000). *Kreowanie wiedzy w organizacji: jak spółki japońskie dynamizują procesy innowacyjne*. Warszawa: Poltext.
8. O'Neill, B.S., & Adya, M. (2007). Knowledge Sharing and the Psychological Contract: Managing Knowledge Workers Across Different Stages of Employment. *Journal of Managerial Psychology*, 22(4), 411-436.
9. Rudawska, A. (2013). Dzielenie się wiedzą w organizacjach – istota, bariery i efekty. *Organizacja i Kierowanie*, 4(157), 89-103.
10. Taylor, E.Z., & Murthy, U.S. (2009). Knowledge Sharing Among Accounting Academics in an Electronic Network of Practice. *Accounting Horizons*, 23(2), 151-179.
11. Trenkner, M. (2010). Kształtowanie środowiska sprzyjającego dzieleniu się wiedzą. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, (115 Menedżer w gospodarce opartej na wiedzy), 792-800.
12. Walczak, W. (2009). Zarządzanie wiedzą w przedsiębiorstwie. *Ekonomika i Organizacja Przedsiębiorstwa*, (12), 3-10.

Chapter 35

The Role of Organizational Culture and Ethical Standards in the Financial Institutions Management in the Light of the Subprime Mortgage Crisis

Paweł Podolski, Filip Wnęk

1. Introduction

The crisis of 2007-2009 was an impulse to start discussions about the stability and safety of the finance sector. The indicated irregularities in the functioning of banks and financial institutions, such as brokerage houses, pension funds and investment funds, including hedge funds, have contributed to the loss of trust for the financial markets by ordinary people as well as entities active on the market. In many academic and scientific publications attempts have been made to indicate the genesis of the crisis and conditions for making extremely risky investment decisions by the participants of the market. On the 10th anniversary of the 2007-2009 crisis outbreak it seems worthwhile to perform such an analysis especially as regards the impact of the culture of an organization and ethics of the employees on the functioning of financial institutions in the situation of crisis.

2. World economic crisis of 2007-2009 as an axiological crisis

The crisis, which began in 2007 on the financial market of the USA and spread very quickly on the world market, subsequently penetrating the real sphere and public finance, has a systemic character. Bearing this in mind, it is necessary to go beyond the pure financial aspect of the analysis and take social and economic factors into account. The fundamental reason for the crisis seems to be the separation of the economic sphere from its original, ancillary function to the real sphere of the economy. This is due to the fact that the finances constitute all the phenomena related to human economic and social activity through which the allocation of resources occurs in the economy, which creates conditions for economic processes to occur, as a result of which social needs are satisfied.

The reasons for the increasing dysfunctionality of the economic sphere and the outbreak of the financial crisis are primarily an incomplete process of globalization and liberalization

of the financial market, as well as the existence of dysfunctional institutional structures. The genesis of these processes seems to be the deeper and deeper ethical and axiological crisis of the entities in the area of finance, including financial holdings and international organizations as well as individual employees.

2.1. The process of incomplete globalization and liberalization of financial markets

Globalization is defined as all the processes leading to bigger and bigger interdependence and integration of countries, societies, cultures and economies, whose effect is the creation of “one world” and world society (Kempny, 1998), constituting a more and more unified culture, in which traditional norms and beliefs of societies are being replaced by values of a typically consumptionist character. Because of the fact that they play the role of criteria of choice for general, social aims, the above seems to be one of the reasons for the outbreak of the crisis and its dramatic course.

Additionally, at its current stage, the globalization seems to be incomplete due to uneven globalization of particular markets, which can be distinguished based on the subject of circulation. The financial market is regarded as the most globalized, in contrast to the labour market for example (Rymarczyk, 2013). In the case of the financial market, due to continuing processes of liberalization and deregulation, a free flow of capital has been achieved globally, in a situation in which the institutional bases for the creation and execution of world regulations, as well as implementing boundary conditions and standards have not occurred.

Actions taken since the 70s of the XX century in order to deregulate and liberalize the financial markets were supported by the neoliberal ideology developing since that time. The belief in the absolute primacy of the market mechanisms, not limited by any regulations has become an axiom (Żyżyński, 2010). The main arguments for the neoliberal economic policy were the negation of the role of demand in the economy as well as the deregulation of the market economy accompanied by minimal taxes and limited role of the state, whose primary aim should be ensuring budget balance and limiting inflation even at the cost of an increase in the unemployment rate or undermining the stability of economic growth. In the period of crisis of 2007-2009, these assumptions have not prevented those supporting the neoliberal doctrine from expecting help from the weak and previously attacked state for the entities existing on the financial markets which were abusing their freedom earlier.

The result of neoliberal economic policy has been the continued process of gradual delegation of power from the state to the capital managed by market oriented institutions (Wolf, 2008), caused by the dependence of states on capital flows. Competition among the states, whose subject was capital and investments, among others by offering subsidies as well as tax reliefs and exemptions, often not available for domestic SMEs, leads to the monopolization of the economy on the national and international level, resulting in the concentration of economic power in the hands of a limited number of international corporations (Barney, 2008). Their influence, caused to a significant extent by realizing particular interests and gaining short term profits, seems to be far away from the declared ethical norms and negative for the majority of the society, and in the long run for the functioning of the economy.

2.2. Dysfunctionality of institutional structures

The structures of financial institutions existing at the time of the outbreak of the crisis seem to have been dysfunctional, i.e. not adapted to performing their functions on the financial market, as well as providing financial services for the entities in the real sphere of economy. In the period preceding the economic crisis, the problems were mainly an underestimation of the risk related to newly issued assets, the lack of transparent presentation of derivative financial instruments in the balance sheets of financial institutions, strong domestic and international correlations of the financial institutions and high leveraging in the financial system (Blanchard, 2009).

As regards the crises of 2007-2009, one of the most important factors indicating the dysfunctionality of a part of financial institutions can be the development of the a new banking model – arms-length financing, with the lack of control of credit risk of the moneylender by the bank at its basis. The banks and other financial institutions transferred the risk to other participants of the market instead of managing it (Stiglitz, 2004). It was assumed, wrongly as it later proved, that risk mitigation was not possible through differentiation. This was due to the fact that moral hazard premises appeared in the functioning of the “loan chain” – entities engaged in granting loans, theoretically safe from risk, involved in selling more and more risky loans than in the situation when they were exposed to risk themselves.

It seem that the real crisis began when, after a rise of interest rates by FED at the end of 2006, it turned out that financial instruments related to subprime loans can be worthless in most cases. D.M. Smick (2009) seems to be right claiming that the direct cause of the market crash was not the lack of financial solvency of subprime loan-takers, but the crisis of trust to the financial system itself, caused by its common lack of transparency and a shock caused by the level of abuse gradually coming out.

3. The role of ethics in managing financial institutions

It seems to be important to ask a question why abuse on the financial markets happened and still happens to such a large extent on the financial markets. Within the 10 years since the crisis outbreak, a smaller or bigger catalogue of causes related to organizational and legal factors has been presented in many works (e.g. Bootle, 2009; Szymański, 2009). It seems necessary to transfer the analysis to a more general level and answering the question about the proper relation of ethics and management style, the organizational culture of financial institutions, as well as moral values of people employed in such institutions.

3.1. The role of organization culture in managing financial institutions

The culture of an organization constitutes a system of thinking and acting patterns as well as norms, shared among the employees, which have been strengthened in the social environment of the organization and which influence the setting and realization of its formal goals (Schein, 2010). The culture of an organization not only increases its stability and coherence, but reflects the dominating beliefs and is a source of not fully conscious and often not coded acting principles applied at the place of work (Cameron & Quinn, 2010). In shaping the behaviours of employees,

such elements of the culture of an organization as its basic norms and values play a special role (Schein, 2010). The basic assumptions, including the ideological bases and ways of perceiving various situations, seem to influence behaviours indirectly. The norms and values seem to have a more direct influence, but not the declared ones (ethical codes and codes of conduct), but the real ones. In cases of many financial institutions there should not exist a conflict between these categories (Świeszczak & Świeszczak, 2013).

The dysfunctionality of a part of financial institutions seems to be conditioned by the dominating culture of the organization to a large extent – an extreme form of the market culture (Cameron & Quinn, 2010), whose aim is to maximize profit in the short run and achieving stock exchange indicators satisfying the shareholders. All the elements of the organization are oriented at realizing these aims. In a market culture organization, the environment is perceived as competitive and requiring continuous competition and the institution itself functions like a micro market, based on the competition among the employees and money exchange.

An important problem is the detachment of ownership and management as well as the crisis of corporate supervision especially visible in the areas such as risk management, remuneration system, functioning of the board of directors and the influence of shareholders on shaping the strategy of a company (Samborski, 2011). The absence of financial liability of the managers seems to facilitate taking unethical actions. People in the boards of directors are evaluated in accordance with the value based management, which contributes to the acceptance of excessive risk (Nieborak, 2010) and the domination of short-term goals (Clarke, 2011). The role of investments and organizational changes seems to be underestimated, these can be costly in the short run, but enable achieving a competitive advantage as well as a stable, long-term growth of a company.

There was another ethical issue that influenced the markets' behaviour. This was "market automation", which was based on employees called "quants" who were preparing automatic trading systems for an institution. Those systems are known as "algorithmic trading" and the aim is to try and settle a set of transactions based on listed criteria as set by quants, the algorithm's creators. So although quants had the opportunity to set favourable (for them) assumptions to allow the possibility of increasing their profit, this increased the number of risks to the company. Prior to 2007, quants had set a series of assumptions that meant exceeding acceptable risk thresholds – one of the factors that accelerated the collapse of a number of financial institutions. Because they had created unrealistic forecasting models, quants were happily putting stakeholders' money at irrational risk for possible profits. When it comes to being a professional manager, this was also unethical. The effects of the quants' actions was spread around by brokers, because they were selling various derivatives with different underlying instruments. But these were always connected with risks from the real estate market.

Taking up excessive risk by the managers of financial institutions may also be facilitated by the centralization of risk management. Due to a large number, diversification and dynamics of the changes of the situation on the markets, the centralization may make the proper risk assessment in particular market segments difficult. The level of risk, set correctly for all the financial institutions, may prove not to be appropriate for particular local markets, which may lead to local imbalance. Moreover, a cumulation of different kinds of risk may not always be taken into account in the analyses, e.g. the risk of granted loans and sold insurances for the same customer by various companies belonging to one holding (Łobejko, 2012).

3.2. Ethics and morality of the people involved in finance in the light of the Kohlberg theory

3.2.1. The L. Kohlberg theory

The functioning of financial institutions in an ethical way is conditioned by the perception of particular social norms by the people involved in these institutions. A special responsibility is placed on the managers of medium and higher level, as well as on investors and owners of substantial capital, who actively cocreate the strategy of functioning of those institutions. An important role, however, is also played by the ways of acting of employees implementing the worked out solutions and representing financial institutions in the direct contact with the customer.

In this study, an analysis of the role of morality of people employed in such organizations has been performed on the basis of the theory of moral reasoning proposed by L. Kohlberg. An important subject of the Kohlberg theory is the structure of moral judgement, related to the characteristic for each of the three distinguished levels of moral development social-moral perspective, which constitutes the characteristic view point for approaching moral problems and forming moral judgements (Czyżowska, 1993). The social-moral perspective regards the relations of human and social-cultural rules and norms as well as other peoples requirements and expectations.

In the theory of L. Kohlberg morality is complex and polymorphous. First of all, three levels of moral development are distinguished, the preconventional, conventional and postconventional morality. For those representing preconventional morality, an egocentric and individual perspective is specific, in the case of which social rules and norms are not internalized and are external to a person. Due to a very limited understanding of the role of social norms as well as limited sensitivity to the expectations of other people, the behaviours are mainly a subject of external control. Conventional morality is a result of the internalization of social rules and norms of the environment in which a person lives and with which it enters into mutual interactions. In the case of postconventional morality, the subject understands and accepts the social rules and norms, but the dominating role in the interactions with the environment is played by following general, absolutely binding moral rules, such as justice, equality or respect for life and dignity of human.

The moral development is dependent on the cognitive development level and the existence of proper environmental influences. According to L. Kohlberg, the influences of the environment need to be regarded in the categories of adopting roles and the circumstances suitable for their adoption, i.e. situations in which an individual has a chance to adopt attitudes of other people engaged in a particular process and incorporating it into the mechanism of his or her own conduct (Czyżowska, 1993).

3.2.2. Homo pecuniosus

The concept of *homo pecuniosus*, meaning “money man”, has been proposed by J. Filek (2010) first of all in relation to people responsible for the creation of the sphere of finance – the management of medium and higher level of the financial institutions, investors and owners of large capital.

The money man is focused on calculating. His relentless tendency to calculate the value of everything and everyone is conditioned by the unlimited strive for ownership and power. According to J. Filek (2010), the money man is totally not free, because his/her need to possess makes orientation on others, treating them as subjects rather than objects or behaviour in line

with the socially accepted norms impossible. He/she is indifferent towards ethical values, which seems to be a result of treating a human and the whole society like an object, as well as the lack of ethical reflection caused by the lack of empathy and adopting the roles of other people.

In line with the above it seems that the money man represents the preconventional level of moral development, for which an egocentric and individual perspective is specific, related to the primacy of satisfying individual needs and concentrating on individual interests as well as moral heteronomy depicted by following the rules only because of substantial sanctions in the cases of not following them, which became apparent in the times of the 2007-2009 crisis.

3.3. Shared responsibility

Financiers, economists, regulators, governments and common citizens believe that they are something special in their approach which gives them an advantage when getting a piece of the stake in the profits that lie in the market. Unfortunately, this conventional way of thinking is illusionary and is combined with a lack of rationality that comes from a lack of ethical standards. If there is a counterparty that takes risks in a particular market, then the risk is real. But this market participant is making the assumption that its decision-making process allows them to rapidly escape from any precarious event before being pushed into having to account for a loss. This means that the majority of market participants are led into the belief that they possess more intelligence than everybody else and are only one of several market participants, so in that way they alone cannot be held responsible for destroying the market solely by their decisions. All this comes to the statement that the first ethical issue to be disregarded during an economic crisis is a lack of personal ethics.

For a top-down methodology, it is important to look at individuals who have committed many “ethical crimes” within financial institutions in the past. One of the best known was Nick Leeson, an employee of British Barings Bank, who was a junior trader. In the course of his duties, he was making arbitrage transactions, but in his case his trading was leading to several losses. Despite being denied permission to do so, he then decided to try and make amends for the situation by making further transactions. These fraudulent activities in the bank’s trading account were not investigated until the losses reached the extraordinary level of \$1.25 billion. His behaviour is an exact example of a lack of personal ethics, along with an organization that was not being managed well and a company that had no efficient risk management systems (Allen, 2012).

Another obvious example was the case of John Rusnak, who was an employee of the Allied Irish Bank (AIB), and who committed a similar financial crime as Leeson. The only difference was that Rusnak was hiding his losses by making confirmations for imaginary trading, while Leeson was manipulating the back-office’s employees by getting them to not report his losses. John Rusnak led AIB to a loss of approximately \$700 million (Allen, 2012).

In the more recent past it is possible to find another example of a lack of personal ethics. One of Société Générale’s employees was also a junior trader who was smart enough to realize how to conduct unauthorized transactions. He was creating fake trades because he wanted to offset current trading positions. He was aware of the techniques that were required to cheat the control systems and because of that, his trading results were losses of \$7.1 billion (Allen, 2012).

It is important to realize that such establishments are made up of people who are gathered together to make an organization’s aims and goals real. It can be said that the first ethical motive

is “shared responsibility”. This phenomenon is decisive in the economy, and as stated in the previous paragraph, market participants may well make their financial decisions alone, but every single market transaction has an impact on the whole market. If such procedures go further, the more irresponsible participants who proceed with such appalling decisions, then the bigger the collapse of the whole economy. The financial markets are divided into many parts which in turn leads to a shared responsibility, but in the end all market participants are responsible. Unfortunately not everybody pays the costs that arise through a period before a crisis.

4. Conclusion

Looking back with hindsight, it can be said that there have been a few lessons that should be learned from the crisis. The first is that human psychology plays an important role in financial markets. The process of managing a financial institution should include looking for evidence of irrational exuberance and that an assumption should never be made that a market will be infinitely rising. Second, correlation coefficients are not the same during a crisis and a period of prosperity. As it can have been observed in the subprime crisis, correlations strive for a value equal to one, which has made previous calculations of a portfolio’s risk management inefficient.

Transparency in financial markets should be provided by the application of deliberate rules and processes without exception because it is important for a well-functioning financial market. It should be strengthened by trader bonuses aligned with the interests of their employers. Bonuses should be paid over several years and should be cancelled if, in the course of their activities, a trader makes a loss. This would eliminate some ethical temptations which result in making transactions that would be deemed too risky, because then a trader will not receive that highly sought-after sum of cash at the end of the day: their bonus (Hull, 2015).

Bibliography

1. Allen, S. (2013). *Financial Risk Management: A Practitioner’s Guide to Managing Market and Credit Risk, Financial Disasters*. New Jersey: John Wiley & Sons.
2. Barney, D. (2008). *Spółeczeństwo sieci*. Warszawa: Sic!.
3. Blanchard, O. (2009). *The Crisis: Basic Mechanisms, and Appropriate Policies*. IMF Working Paper WP/09/80.
4. Bootle, R. (2009). *The Trouble with Markets. Saving Capitalism from Itself*. London: Nicholas Brealey Publishing.
5. Cameron, K.L., & Quinn, R.E. (2010). *Kultura organizacyjna – diagnoza i zmiana. Model wartości konkurujących*. Warszawa: Oficyna Ekonomiczna.
6. Clarke, T. (2011). *Corporate Governance Causes of the Global Financial Crisis. International Perspectives*. Cambridge: Cambridge University Press.
7. Czyżowska, D. (1993). Środowiskowe uwarunkowania społeczno-moralnego rozwoju w koncepcji L. Kohlberga. *Zeszyty Naukowe UJ, Prace Psychologiczne*, 8, 29-39.
8. Filek, J. (2010). Czy finansista jest człowiekiem (moralnym)? *Prakseologia*, 150, 71-86.
9. Hull, J.C. (2015). *Risk Management and Financial Institutions, The Credit Crisis of 2007*. New Jersey: John Wiley & Sons.

10. Kempny, M. (1998). *Encyklopedia socjologii*. Warszawa: Oficyna Naukowa.
11. Łobejko, S. (2012). *Globalizacja a współczesny kryzys finansowy*. Warszawa: Europejska Wyższa Szkoła Informatyczno-Ekonomiczna w Warszawie.
12. Rymarczyk, J. (2013). Internacjonalizacja i globalizacja giełd papierów wartościowych. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 315, 181-199.
13. Samborski, A. (2011). Kryzys finansowy a nadzór korporacyjny. *Problemy zarządzania*, 9, 233-256.
14. Schein, E. (2010). *Organisational Culture and Leadership*. San Francisco: Jossey-Bass.
15. Smick, D.M. (2009). *The World Is Curved. Hidden Dangers to the Global Economy*. New York: Penguin.
16. Stiglitz, J.E. (2004). *Globalizacja*. Warszawa: PWN.
17. Szymański, W. (2009). *Kryzys globalny. Pierwsze przybliżenie*. Warszawa: Difin.
18. Świeszczak, K., & Świeszczak, M. (2013). Ethical Issues in the Context of Banks as Public Trust Organizations. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 316, 169-180.
19. Wolf, M. (2008). *Fixing Global Finance*. Baltimore: Johns Hopkins University Press.
20. Żyżyński, J. (2010). Neoliberalizm – ślepa uliczka globalizacji. [in:] A. Goryńska (Ed.), *Globalizacja, kryzys i co dalej?* Warszawa: Poltext.

Chapter 36

The Importance of Cooperation in the Network in the Process of Learning of a Public Organization¹

Angelika Wodecka-Hyjek

1. Introduction

A more and more diverse context of undertaken problems may be seen in the current discourse regarding the efficiency and effectiveness of the functioning of public sector organizations. The focus on the customer, accountability, increase in responsibility for results as well as a number of changes taking place inside the organization become dominant. The organizations are changing from bureaucratic to flexible and open to the process of learning. When public governance was separated as a sub-discipline of management sciences, the need for a professional and modern organization management in this area was indicated (Sudoł & Kożuch, 2010). However, opinions regarding the possibility of proper management for business organizations of the public sector stress the need to allow for clear differences the most important of which refer to generating public value, and not earning profit as well as functioning in a specific environment of formal-legal and political conditions (Sudoł, 2007, pp. 40-42; Kożuch & Sułkowski, 2015, pp. 29-31). According to B. Kożuch (Kożuch & Sułkowski, 2015, pp. 28-29), contemporary public organizations undertake actions for the public interest and achieve their goals mainly by establishing a cooperation relationship with other organizations or other participants of the social and economic life. An interesting concept in this respect focused on cooperate resulting from the growth of interdependences towards the challenges of a diverse environment is cooperation in the network, in particular the concept of networks governance which is the model of an intentional management of actions of many entities, not being a strictly political concept – like governance – because it refers to methods used to achieve social and economic coordination (Czakon, 2008, p. 7). Defining network governance directly corresponds with the interpretation of the notion governance which is the prism of new public governance. The notion governance does not have one equivalent in the Polish language and is translated as: coordination

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of collective actions”, co-management or participatory governance in which governmental, semi-governmental and non-governmental structures participate (after: Kopyciński, 2009, p. 7). Extensive deliberations regarding the governance of a network as a learning organization in the public sector allow T. Cooper and M.O. Stephenson (2012, pp. 11-12) to notice that learning opportunities have a significant meaning among the numerous benefits offered to participating organizations by network structures, apart from increased capacity, increase in flexibility as well as increased responsiveness.

The purpose of the study is to present the importance of cooperation in the network in the process of learning of a public organization. The assumptions of the network approach in governance as well as in models of public governance are presented in this respect, the special character of the functioning of public organizations is displayed and attention is drawn to the context of organizational learning. The context of the implementation of cooperation is presented on the basis of an example a platform model of learning in networks, as are the benefits and limitations as well as key issues regarding the experience of cooperation in the network. The review of the current literature on the subject was the basis for the analysis and the conclusions.

2. Paradigm of the network and the development of the public governance concept

Networks for contemporary organizations, also in the public sector, are a modern and a desired form of mutual relations between cooperating entities. One of the three meanings is attributed to networks (Czakoń, 2013, pp. 64-65): structural, organizational and coordination. From the structural perspective, they are a system of peaks and relations between them the structural properties of which contribute to the explanation of phenomena and processes significant for management sciences. From the organizational perspective, it is emphasized that networks create entities separate in formal and legal terms collaborating in creating value, while the basic feature of such network organization is the lack of hierarchy. From the coordination perspective, the issue of the organization of cooperation between entities forming the network is raised, and attention is paid to the simultaneous existence of coordination mechanisms: market, hierarchy and society. The institutional frames of exchange in networks reflect the model of an intentional management of actions of many entities and they are defined as network governance. According to W. Czakoń (2008, p. 7), the issue of network governance is one of the important challenges of strategic management related to such phenomena as: deconstruction of the chain of values, inducing the need for cooperation with others; hyper-competition, forcing flexibility in actions as well as networking, consisting in creating large groups of cooperating units.

The specific network perspective in governance of organizations from the public sector was emphasized in the evolution of the public governance concept which was accompanied by such processes as: decentralization, pursuit of an increase in the quality of public services, use of outsourcing, public and private partnership as well as development and growth in the importance of non-profit organizations in implementation of tasks previously entrusted to the public sector. Because the inefficiency and the wide range of criticism of the assumptions of the Weber's model were demonstrated, the concept of New Public Management was established in the 1980s. Its essence is the adaptation of the managerial approach to management as well as the privatization of the public sector. The particular care for effectiveness in spending public funds, customer satisfaction, the transparency of actions and the responsibility for results undoubtedly prove the fact

that the need for cooperation in the network is indicated. The critical reflection on the theory and practice of reforms postulated by NPM made it necessary to redefine the role of the state (Wo-decka-Hyjek, 2016, p. 138). The concept of governance emerged as a result of the discourse. This concept emphasizes the “soft” formula of public governance as a process based on non-forced cooperation of independent entities cooperating on the basis of trust and mutual responsibility. Governance notices the issue of power dependences between institutions involved in mutual actions; it applies to autonomous, self-governing networks of players; its basis may be seen in the sociology of organizations, the concept of the pluralistic state and the theories of the network (Stocker, 2008; Osborne, 2006; after: Kulesza & Sześciło, 2013, p. 116). The assumptions of the governance model and its wide interpretation became the basis for defining the new model of governance in the public sector – network governance. P. Kopyciński (2009, pp. 8-9) notices that network governance may refer both to relations between companies as well as to interactions taking place in the public sector. In the case of companies, it is interpreted through the prism of specific processes taking place in a permanent and internally orderly group of independent companies (as well as other non-profit organizations), these entities take part in creating products and services, formal and informal pacts are used to adjust the conditions of the environment as well as to coordinate the processes of exchange, and contracts established in such pacts become binding as a result of a social contract, rather than legal regulations. In turn, in the public sector it is understood as interactions taking place among various social and political conditions players who implement co-management processes. E.H. Klijn and J. Koppenjan (2016, p. 11) define network governance as the set of conscious steering attempts or strategies of actors within governance networks aimed at influencing interaction processes and/or the characteristics of these networks in one of the latest publications in this respect. Through the prism of such criteria as: focus, objectives, core ideas/management techniques, politics and complexity in society, they characterize the most important attributes of Network Governance as compared to the assumptions of the New Public Management model (Tab. 1).

Table 1. Attributes of New Public Management and Governance Network

Criterion	Assumptions	
	New Public Management	Network Governance
Focus	Internal functioning of governmental bodies and contractual relations.	Relations between governments and with other actors (inter-organizational focus).
Objectives	Improving effectiveness and efficiency of public service delivery and public organizations.	Improving interorganizational coordination and quality of policymaking and service delivery.
Core ideas/management techniques	Using business and market instruments (modern management techniques, market mechanisms, performance indicators, consumer boards) to improve service delivery.	Using network management: activating actors, organizing research and information gathering (joint fact-finding), exploring content, arranging, process rules, and so forth.
Politics	Politicians set goals. Policy implementation and service delivery is done by independent agencies or market mechanisms on the basis of clear performance indicators.	Goals are developed and negotiated during interaction processes, with no sharp distinction between formation, implementation, and delivery of policies and services. Politicians are part of these processes or facilitate these processes.

Complexity in society	Complexity requires the setting of clear goals and allowing implementers discretionary space to realize outcomes. Keep away from the complex interactions with society. Use market incentives to govern implementing units.	Complexity requires interaction and network relations given interdependencies. Taking part in complexity by interacting with actors in society is unavoidable and/or necessary to reach effective and supported outcomes.
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Source: prepared on the basis of (Klijn & Koppenjan, 2016, pp. 9-10).

3. Specific character of public organizations and organizational learning

Public organizations are defined on the basis of management sciences as units of the public sector covering state and local government institutions as well as their organizational units performing public tasks Kożuch (2007, p. 127). A public organization is a social and economic system the subsystem of objectives and values of which, the psychosocial, material-technical and the structural subsystem and, above all, the management subsystem as well as relations with the external environment are characterized by an audience as an immanent feature distinguishing them from other types of organizations. The specific character of management of public institutions, also known as the audience of organizations, is manifested in four dimensions: the relations of public organizations with the environment, distinctive objectives, the structure as well as values Kożuch (2004, pp. 89, 96). In consequence, the methods of operation used to achieve objectives may be different than in the case of organizations focused on profit. Public institutions seem to be open to the influence from the environment to a greater extent. The environment is, at the same time, more complex and less stable than in the case of commercial organizations. The pressure from competitors is also smaller – the government administration and the local government are established by the state and, as a consequence, the benefit from the revenues to the state budget to a certain extent which is essentially not present in the case of commercial companies (Wytrązek, 2011, p. 324). S. Sudoł (2007, pp. 41-43) established significant differences regarding the management of public and commercial organizations stressing that public management is implemented by public authorities, namely authorities of the local government, the central and regional state administration, while management in organizations is implemented by the management boards or other forms of managerial instances; management within a single organization applies to particular elements combined with a mutual objective, while in public organizations it applies to a set of institutions the objectives of which do not need to harmonize with one another and these institutions do not contribute to the success of the whole; the right to management in economic organizations which are the main objects of management sciences results from the property right, while in public management it results from the control of the state or local authorities or from the right of supervision over social units with a legal personality; the organization is managed by its management body, following its individual good, while public management is always about the good of the community; as opposed to economic organizations, institutions of the public life cannot be assessed on the basis of the shaping of profit or their market value; the prime role in the management of public units is played by social policy as well as political reasons; public organizations perform tasks entrusted to them by way of administrative

acts by superior units, while economic organizations, covered by the principles of general management, define tasks for themselves; the activities of organizations in the public sphere are regulated by the administrative law, while the activities of economic organizations are regulated by the rules of the commercial and civil law.

The current discussion regarding organizational learning stress its shaping in the public sector. They contest that the learning of an organization is the condition for the implementation of changes and achieving the expected results. The detailed review of literature in this respect made by Polish researchers (Olejniczak et al., 2012, pp. 74-76) stresses the multi-aspect context of analyses which is dominated by the statement that organizational learning is a dynamic process in which four elements composing a cycle may be distinguished: actions of the organization, gathering impulses and information, interpretation/reflection, adaptation/change.

Actions of the organization are based on coded routines expressed in procedures of conduct. Organizations are focused on objectives and their actions depend on the difference between the assumed objectives and the reaction of the environment expressed in achieved results. The crucial role in this respect is played by relations with the environment which provides feedback about the effects of the organization's actions. It is also the point of reference and a source of information about the results. The organization tries to adapt to the changing environmental conditions by analyzing the feedback. It should be stressed that organizational learning is something more than regular adaptation. Adaptation is the ability to undertake intensive adaptation activities being the result of changes in the environment. In turn, adaptation in organizational learning needs to be preceded by reflection on the observed results, their interpretation by the employees, the understanding of phenomena and their conversion by the organization. The effect of learning is a change which closes the cycle of learning of the organization.

Functioning in the network enables access to extensive knowledge which constitutes an important resource for any organization. Members of the network become more creative, learn from others and use their experience by extending the knowledge base and increasing the range of operation. In addition, they gain a huge information potential which may be acquired at relatively low costs. Networks which effectively distribute knowledge may be well prepared for innovations in areas which are of mutual interest to their members. The awareness of sharing knowledge itself suggests the possibility of unprecedented innovation (Cooper & Stephenson, 2012, pp. 11-12).

4. Organizational learning in schools as seen in the case of a platform model of learning in networks

The basis for showing the importance of cooperation in networks in the process of learning of public organizations is the example of a platform model of learning in networks described in the literature on the subject by K.P. Schulz and S. Geithner (2010). The platform model of learning in networks is an institutionalized form of knowledge exchange and cooperation beyond the borders of one organization. Representatives of organizations participating in networks meet on the platform, excluding the spatial-time gap, exchanging knowledge and experience as well as considering problems regarding operational activities. Ideas and solutions to problems are transferred to participating organizations and are used in daily practice. In addition, experience regarding implementation may provide feedback and be the basis for further discussion on the level of the platform's functioning.

The learning networks constituted part of the program of “a network of innovative schools in Germany” which was developed and conducted by the Bertelsmann foundation team in order to assess the network’s results as a whole. 13 “learning networks” took part in the program. Each of them consisted of three to six schools, and there were sixty two schools in total. In order to intensify the exchange of experience and to pursue the ideas, each participating school appointed one or two permanent representatives to its network (these most often were the representatives of the management or people holding key positions). Every educational network developed and implemented its own method of operation along with a plan of work, a schedule, objectives, milestones, methods and intended achievements as well as the standards of communication and coordination, such as regular meetings at the level of the network as well as mutual visits. Every learning network focused on a specific general topic significant for the participating schools. The subject matter of works was associated with organizational development or improvement in teaching and learning as well as the development of the participating school as a whole. The results of analyses of learning in a network were used for general discussion on the school’s development. The school’s functioning was developed at the level of operational work (changes in the concepts of teaching and organization of the school’s work, development of teachers) by reflection and exchange of experience at the level of the network.

Two levels were distinguished as part of the major actions:

1. Actions at the level of the platform – learning network, covering:
 - the exchange of experience and the existing concepts of work in schools,
 - the further development of the existing concepts,
 - the collective development of new concepts,
 - the assessment of cooperation in the network.
2. Actions at the level of operational work – participating schools, including:
 - the assessment of current practices with regard to work in schools,
 - the transfer and implementation of ideas from the network,
 - actions related to the school’s development which included the concept of education and teaching, the professionalization of teachers as well as the organization of the school’s administration.

The research was conducted both by means of standard questionnaires with closed and open questions, as well as with the use of interviews. Data obtained in the research was analyzed quantitatively as well as subjected to the descriptive formula.

As a result of the analyses of the obtained research results, the benefits of participation in a learning network were accordingly identified: for the teachers and for the school as a whole (Tab. 2).

Table 2. Benefits of participation in a learning network

Benefits of participation in a learning network for:	
Teachers of schools participating in platform works	School as a whole
<ul style="list-style-type: none"> – exchange of experience in order to acquire new ideas, – acquiring knowledge about other schools, – motivation, support, gaining self-confidence, – further education, – assessment of one's own work and self-reflection. 	<ul style="list-style-type: none"> – exchange of experience, problems and difficulties, – contribution to the development of the school and school curricula, – learning new approaches, improving used teaching methods, – implementing new approaches acquired from partners in the network, – further education, – self-assessment and reflection, – partnership assessment as part of the cooperation network, – building a team and developing the team, – exchange of materials and mutual development of partners in the network.

Source: prepared by the author on the basis of (Schulz & Geithner, 2010, p. 76).

The subject of the analysis also included the presentation of the impact of the platform's activities on the operational work of schools participating in the network. the benefits and limitations as well as key issues regarding experience as part of cooperation in the network were characterized from the perspective of three issues – the motivation to participate and manage the participation in the network, the cooperation at the level of the platform as well as the transfer of results from the network to operational practice (Tab. 3).

Table 3. Key issues and problems in cooperation in the learning network

Key conclusions		
Motivation to participate and managing participation in the network	Cooperation at the level of the platform	Transfer of results from the network to operational practice
<ul style="list-style-type: none"> – common motivation to participate in the network among the examined schools was identified, – participants of the learning network expect the exchange of experience and ideas by crossing their own organizational boundaries, – participants of the network are interested in exchanging experience with regard to solving similar problems, 	<ul style="list-style-type: none"> – the basis for the exchange of knowledge was the discussion on specific problem areas and the method how to develop specific solutions, – development of cooperation and mutual understanding as well as strict agreement at the level of the platform was observed when discussing practices used in particular schools, the general principles of learning or the institutional framework, 	<ul style="list-style-type: none"> – the transfer and implementation of the platform's work results is the most important aspect of creating a learning network, – the majority of school members have a positive opinion about the network,

<ul style="list-style-type: none"> – participants of the network expect the exchange of knowledge about the progress of works regarding similar problems and actions, – cooperation and communication between comparable institutions fosters changes in their own organizations, – established communication forums, such as meetings and notice boards, did not bring the expected results in communication between the platform and particular schools, it was necessary to organize additional meetings and educational workshops, – personal communication with colleagues was the key factor determining the distribution of ideas acquired in the networks in particular schools. 	<ul style="list-style-type: none"> – the atmosphere of work in the network was very good, – the majority of the representatives of schools actively participating in the platform's actions held managerial positions or other key positions in the schools, – the problems with resources were mentioned, – participants of the platform noticed the fact that their conceptual work is very time-consuming, especially when it comes to development actions, – due to operational limitations, they did not have enough time to communicate and to analyze the results obtained from participation in the network. 	<ul style="list-style-type: none"> – it could be noticed in several schools that network ideas were eliminated, mainly due to the lack of resources and the lack of adequate methodology for implementing new solutions, – the representatives of schools often complained that they feel left alone with their ideas and they have the impression that their colleagues are not motivated to become involved in the implementation of new solutions, – teachers who did not directly attend the works of the network stated that new ideas were not understandable for them and they did not have any importance in their everyday work, – the majority of respondents noticed that the success in the implementation of new solutions acquired by learning in the network depends on the specific nature of the functioning of a given school.
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Source: prepared by the author on the basis of (Schulz & Geithner, 2010, pp. 77-79).

5. Conclusion

It may undoubtedly be concluded that the most important advantages of network cooperation include: cooperation based on strategic partnership; an open system of communication between partners; making decisions together by all participants of the network which results in a democratic model of planning and organizing the work of the network; the negotiation method of coordinating the partners' actions; flexibility; complementarity of resource and competences, expressed in the exchange of knowledge, which is not attainable for institutions operating beyond the network as well as the possibility to acquire new solutions providing the customer with more complex products and services adjusted to their needs (Flieger, 2016, p. 116).

However, the presented research results also make it possible to notice a number of limitations identified, in particular, at the stage of translating the experience acquired from participation

in a learning network to the practice of functioning of particular organizations. The issue of effective and efficient cooperation in the network seems important in this respect. As seen in the case of the presented learning platform, effective cooperation requires close relations between the platform and the operating activities of particular units. Despite great motivation and involvement of particular organizations, the exclusion of teachers in the immediate participation in the platform's works turned out to be a critical factor and entrusting this function only to heads and decision-makers was burdened with the risk of failure in the implementation. However, this was not the only reason for potential failures because the respondents also stressed that ideas acquired as part of the exchange of knowledge in the network were not used, mainly due to the lack of resources and the appropriate methodology for implementing new solutions. In addition, a significant issue was the selection of the communication tool between the platform and particular participants for which the electronic communication forums proved insufficient, and traditional meetings and educational workshops turned out to be the preferred way of communication.

From the perspective of the improvement of public organizations, learning through cooperation in the network is a huge potential for implementing new solutions, noticing the changing and diverse needs of stakeholders, increasing the flexibility of functioning, and it may contribute to the development and the improvement of the communication system, an increase in employee involvement, building an organizational culture based on learning as well as searching for and implementing innovations.

Bibliography

1. Cooper, T., & Stephenson, M.O. (2012). Managing Networks as Learning Organizations in the Public Sector. *The International Journal of Management Science and Information Technology (IJMSIT)*, 1(3), 1-37.
2. Czakon, W. (2008). Koordynacja sieci – wieloraka forma organizacji współdziałania. *Management*, 16(5), 373-392.
3. Czakon, W. (2013). Uwarunkowania i mechanizmy koordynacji sieci. *Studia Ekonomiczne*, (141), 62-71.
4. Flieger, M. (2016). Optymalizacja funkcjonowania administracji publicznej poprzez kooperację w sieci. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 421, 114-127.
5. Koźuch, B., & Sułkowski, Ł. (Eds.). (2015). *Instrumentarium zarządzania publicznego*. Warszawa: Difin.
6. Klijn, E.H., & Koppenjan, J. (2016). *Governance Networks in the Public Sector*. London and New York: Routledge.
7. Kopyciński, P. (2009). Znaczenie koordynacji sieciowej w innowacyjnym rozwoju regionu. *Zarządzanie Publiczne*, 3(9), 5-18.
8. Koźuch, B. (2004). *Zarządzanie publiczne*. Warszawa: PLACET.
9. Koźuch, B. (2007). *Nauka o organizacji*. Warszawa: CeDeWu.
10. Kulesza, M., & Sześciło, D. (2013). *Polityka administracyjna i zarządzanie publiczne*. Warszawa: LEX a Wolters Kluwer Business.
11. Olejniczak, K., Rok, J., & Płoszaj, A. (2012). Organizacyjne uczenie się i zarządzanie wiedzą – przegląd koncepcji. [in:] K. Olejniczak (Ed.), *Organizacje uczące się. Model dla administracji publicznej*. Warszawa: SCHOLAR.

12. Osborne, S.P. (2006). The New Public Governance? *Public Management Review*, 8(3), 377-387.
13. Schulz, K.P., & Geithner, S. (2010). Between Exchange and Development: Organizational Learning in Schools through Inter-organizational Networks. *The Learning Organization*, 17(1), 69-85.
14. Stoker, G. (2008). Zarządzanie jako teoria: pięć propozycji. *Zarządzanie Publiczne*, 4(6), 111-121.
15. Sudoł, S. (2007). *Nauki o zarządzaniu. Węzłowe problemy i kontrowersje*. Toruń: TNOiK „Dom Organizatora”.
16. Sudoł, S., & Kożuch, B. (2010). Rozszerzyć nauki o zarządzaniu o zarządzanie publiczne jako ich subdyscyplinę. [in:] S. Lachiewicz & B. Nogalski (Eds.), *Osiągnięcia i perspektywy nauk o zarządzaniu*. Warszawa: Wolters Kluwer Polska Sp. z o. o.
17. Wodecka-Hyjek, A. (2016). Wspomnienie Maxa Weбера. *Organizacja i Kierowanie*, (1), 131-142.
18. Wytrążek, W. (2011). Podstawowe pojęcia teorii organizacji i zarządzania w instytucjach publicznych. [in:] P. Kawalec, R. Wodzis & P. Lipski (Eds.), *Podstawy naukoznawstwa*. Lublin: Wydawnictwo KUL.

Chapter 37

Managing Anniversary Events in Public Institutions – Case Study¹

Beata Paliś, Donata Adler

1. Introduction

Following their mission, public institutions assume the responsibility for a number of tasks such as the management of organization of large events, including anniversary events. The realization of such undertakings is results from the goals assumed within marketing strategies of cities and regions. Both local citizens and tourists more and more frequently participate in this kind of events. Their appropriate organization is of particular importance since events of this kind exert an influence on the image of a given place, determine its brand and identity. The organization of an event involves a variety of tools, including the appointment of programme boards and organization committees. The aim of this article is to analyze the way in which large anniversary events are managed by public institutions. The authors argue that an appropriate management of the organization of historical or anniversary events and the selection of appropriate tools determines the success of this undertaking. This thesis is confirmed by the results of own research works carried out through case studies on the organization of two anniversary events recently organized on such a scale in Krakow, which took place in the years 2006-2008.

This article deals with the characteristics of such concepts as: public institutions, territorial marketing, event marketing, event management, anniversary event, cross-sector cooperation. The following research methods have been implemented: studies of literature on the subject, analyses of documents, analyses of secondary data and case studies.

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2. The concept of an anniversary event in the literature on the subject

The subject matter related to the management of an anniversary event refers to a number of concepts related to various areas of science, beginning with public management and territorial marketing, through tourism, to event marketing. In accordance with the idea of new public management, public units are active subjects dependent on market mechanisms and orientated towards the application of a marketing concept in their activities (Paliś & Adler, 2016, pp. 134-146). This is especially the case when it comes to the principles of territorial marketing, that is conducting a strategy adjusted to the needs and desires of its stakeholders (Niemczyk, et al., 2014, pp. 505-513; Sekuła, 2005, pp. 2016-237). According to A. Szromnik (1996, p. 7) “territorial marketing is a purposeful and systematic activity of the local government administration whose aim is, through the processes of exchange and influence, to recognize, shape and satisfy the needs and desires of the local community”. What is important from the point of view of the research works undertaken in this article is that Szromnik (1996, pp. 17-19) distinguishes five dimensions of territorial marketing, which is a good reason for the analysis of the issue of the management of anniversary events also in the context of the following aspects: strategic-operational, coordination of planning, diversification of activities, informative and philosophical. As it can be seen, the realization of the goals of the public administration must be addressed to various target groups of recipients with the help of various activities. The organization of anniversary events is one of such activities.

Here one should quote the definition of an anniversary event, also known as a jubilee event, according to which it is “a combination of cultural, educational or promotional undertakings organized at a defined time in order to commemorate a certain historical event. This event may encompass both soft-type undertakings and investments” (Paliś, 2016, p. 61). According to Jurczak (2011, p. 10), people are willing to participate in anniversary events because they need a variety of forms of intellectual, spiritual as well as emotional development. Hence, the importance of the so-called historical tourism or, broadly speaking, cultural tourism, is increasing, which creates an opportunity even for small towns or regions.

At present there has emerged a stronger trend, and even a necessity, for the creation of special projects and tourism products which offer a chance to get acquainted with the regional cultural, biological and historical heritage (Žuromskaitė & Katkevičiūtė, 2011, p. 10). Ceremonies and cultural events, also the ones organized as mass gatherings, constituting the core of the sub-product of the ceremonies and cultural events tourism but also of historical-military tourism, are phenomena which satisfy the needs of both tourists and local citizens. Satisfying needs, e.g. of the reception of culture, takes place through the participation in culture (Tyszką, 1999, p. 30, after: Niemczyk, 2012, p. 94). In the case of places where important historical events take place, the best way to gain popularity is through the organization of festivals as well as historical and anniversary events. The categories of events and festivals proposed by J. Jafari (2000, p. 209, after: Ratkowska, 2010, p. 11) also embrace cultural events, anniversary events, political and national ceremonies. Tourists arriving to participate in these events also take advantage of other tourist offers and at the same time visit the region. The organization of events of this type usually constitutes an incentive for the municipal authorities to invest and develop the tourism infrastructure (Žuromskaitė & Katkevičiūtė, 2011, p. 8).

3. The theoretical aspect of the management of anniversary events

In order to contribute to the realization of the intended goals, the organization of an anniversary event must be appropriately managed. As far as public management is concerned, goals are achieved through other organizations (Metcalf, 1993, after: Paliś & Adler, 2016). Partnership and cross-sector cooperation constitute a specific method of management and realization of public assignments which belongs to the catalogue of instruments encompassed by the concept of *good governance* (Wygnański, 2012, pp. 12-13, after: Paliś & Adler, 2016). The following definition of “the management of the organization of an anniversary event” may be formulated – it is “the preparation of an event through the selection of appropriate methods, means and procedures coordinated in an appropriate place and at an appropriate time. Appropriate bodies should be established for this purpose, i.e. for example programme boards, which will prepare the content-based agenda for the event and will supervise its implementation, project teams or organization committees, which then will be in charge of the organization of the event. At the level of the public administration, these bodies usually constitute a team of people representing various institutions, i.e. a broad range of various stakeholders as well as experts. Therefore, anniversary events are usually organized by many subjects” (Paliś, 2016, p. 62). Žuromskaitė and Katkevičiūtė (2011, p. 12) are also of the opinion that when it comes to the organization of events of this type it is not only a good location that is of particular significance, but also an appropriate management of the undertaking as well as the human factor, and especially if and to what extent the local community is involved in the event. The assessment and summary of the event are also very important. In the literature on the subject similar undertakings are discussed in “Turystyka Kulturowa” magazine by Pstrocka-Rak and Nowacińska (2013, pp. 5-20) or Tomczykowska (2014, pp. 6-27). The organization of anniversary events may also be identified with a marketing (promotional) event or the so-called event marketing, i.e. the management of market processes through events; and with event tourism, ceremonies and cultural events tourism, city days celebrations tourism (Mazowiecka Regionalna Organizacja Turystyczna, 2014, pp. 34-46). “Over time celebrations began to change from often informal affairs to spectacular productions requiring new sets of skills, experience, creativity, financing, planning and leadership” (Bowdin et al., 2011, p. 45). Event marketing is one of the forms of marketing communication, whereas events are organized celebrations by means of which a particular message may be communicated to target groups (Kalinowska-Żeleźnik, 2009, p. 431). Kotler and others also indicate the organization of anniversary events and classify the following elements as marketing means-tools: infrastructure, people, attractions, i.e. natural environment, objects of cultural heritage, individuals and teams, expositions and shows, celebrations, events and undertakings, legends and tales as well as historical re-enactments (Kotler et al., 2002, after: Szromnik, 2010). Therefore, it should be noted that the organization of an anniversary event certainly constitutes one of the tools of territorial marketing.

It should be emphasized that the challenges faced by organizers of events and posed by their participants require that they accomplish not only attractive but also efficient and safe activities, frequently ones that would offer diverse benefits (Kalinowska-Żeleźnik, 2009, p. 430). From this point of view, an efficient organization of these events as well as a selection of appropriate tools are of strategic importance in their management. The successive part of the article contains an analysis of the way in which two anniversary events which took place in Krakow in the years 2006-2008 were organized.

4. The management of anniversary events illustrated on the example of the city of Krakow – case study

In the period February-May 2017 the authors carried out research works of the documents and analyzed the effects regarding the organization of two anniversary events in the city of Krakow in the years 2006-2008, i.e. the 750th Anniversary of granting Magdeburg Rights to Krakow, and in 2008 the 325th Anniversary of the Vienna Victory. The purpose of these research works was to analyze and compare the tools implemented during the process of the organization of these events. The analysis was based on the division of key areas of city project management which were identified in the literature on the subject by L. Arendt (2016, pp. 139-166), namely: the management of the scope of the project, time, risk and communication. The verification covered: the selection of tools, the selection of people involved in the organization of the event, the organization of the event from the point of view of time and other aspects. Two events planned as mass gatherings, successfully managed, and where 100% of the programme was accomplished were chosen for the research analysis. 42 documents were analyzed. Table 1 illustrates the analysis of the programmes of the events commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow and the 325th Anniversary of the Vienna Victory as well as the analysis of the kind of accomplished undertakings.

Table 1. Comparison of the programmes of events commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow and the 325th Anniversary of the Vienna Victory

Name	750 th Anniversary of granting Magdeburg Rights to Krakow	325 th Anniversary of the Vienna Victory
Aim of the undertaking	Commemoration of the day of the 5 th June 1257, when Bolesław V the Chaste granted the municipal charter based on the Magdeburg Law to Krakow.	The main idea behind the anniversary was to educate people about how important a role in the battle was played by King Jan III Sobieski, who was the commander in chief of the allied army, and about the victory which was achieved thanks to joining forces. The main aim of the celebrations was to inform all of Europe about these events. Moreover, the organization of the 325 th Anniversary of the Vienna Victory also provided an opportunity of reminding everyone that in Krakow museums there are many exhibits related to that famous event and of their promotion (www.bip.krakow.pl , 2008).

Number of events in the programme	The programme encompassed approximately 100 main undertakings as well as accompanying events. Some of them were one-time events, but there were also ones which turned into cyclical events, e.g. the Festival Cracovia Sacra or the Krakow Night of Theatres (www.bip.krakow.pl , 2007, after: Paliś, 2016, pp. 63-64).	The programme included 28 events.
Kind of events	The programme consisted of groups of undertakings, such as investment activities, highlight events, events of educational character as well as accompanying events, i.e. investments (such as the redecoration of Little Market Square, the rearrangement of the surroundings of the Wawel Hill, investment on the terrain of Jordan Park; the ones which have left a permanent trace after jubilee celebrations, such as the realization of a series of historical-educational programmes, opening a new Tourist Route of the Florian Walls, preparing a model rendering the architectural and urban layout of the City of Krakow; highlight events, which were organized in the period 1-10.06.2007, such as: the realization of the Silva Rerum Mural, the convention of European Brotherhoods of the Rooster, the “Church Bells Concert”, the “Lutes of the World” International Festival, the Krakow-Vienna Ball, the I Festival Cracovia Sacra 2007, opening the Wyspiański Exhibition and Information Pavilion, the Krakow Night of Theatres, other jubilee related events (e.g. a scientific session in the Historical Museum of the City of Krakow titled “Krakow – European City based on the Magdeburg Law”, an advertising campaign, a decoration of the city; additional accompanying events within Krakow cyclical events.	The programme covered the IV International “Week of Bicycle Tourism” – a bicycle race “The Relief of Vienna by Bicycle” and the installation of an information table depicting Krakow green trails. A historical and artistic happening was arranged on the basis of the painting by Jan Matejko “Sobieski at Vienna”, a copy of the painting by Jan Matejko “Sobieski at Vienna” was made and exhibited; one arranged museum exhibitions, the Krakow-Turkey-Vienna Fair, events at the Jan III Sobieski II High School in Krakow, competitions, conferences and scientific sessions, a historical mural titled “The City Gate of Triumph”. The highlight events included: the Parade of the Royal Entourage to the Main Square, the organization of the camp of the Sobieski victorious army on the Krakow Błonia Meadows as well as a cavalry horse show, and also the battle spectacle “Venimus, vidimus, Deus vicit” – (www.bip.krakow.pl , 2008, following: Paliś, p. 63). An advertising campaign and a decoration of the city related to the theme of this event were realized. Discovery Historia TVN channel (Paliś, 2016, pp. 64-65) as well as the Wilanow Palace Museum were invited to cooperation. The Krakow-Vienna Association organized the celebrations in Vienna.

Source: own elaboration on the basis of (www.bip.krakow.pl, 2008; Paliś, 2016, p. 63).

The scale of the presented events required an appropriate system of management, which constituted the subject of this analysis. According to Arendt, “all activities which should be undertaken in order to successfully manage a project are described in the so-called methodologies of projects management. They constitute a systematic description of how to manage a project...” (Bukłaha, 2007, p. 23; after: Arendt, 2016, p. 146). It is an important fact that the analyzed anniversary events were organized before the methodology of projects management was introduced in the Krakow City Hall. However, in spite of the lack of the methodology, in order to efficiently realize the above-mentioned undertakings, the city implemented a number of various tools. These included, among others, the appointment of the Programme Board and the Organization Committee, the preparation of appropriate documents both resolutions of the Krakow City Council and other internal documents. The applied tools are included in the table below.

Table 2. Analysis of the tools applied in the management of anniversary events

Kind of document/tool	750th Anniversary of granting Magdeburg Rights to Krakow	325th Anniversary of the Vienna Victory
Resolution of the Krakow City Council	On 17.12.2003 the Krakow City Council adopted Resolution no XXXIV/299/03 regarding the celebrations of the 750 th Anniversary of granting Magdeburg Rights to the Royal Capital City of Krakow, which determined the celebrations of the 750 th Anniversary of granting the Rights to the city of Krakow.	On 21.11.2007 the Krakow City Council adopted Resolution no XXVII/358/07 determining the directions of activities for the President of the City of Krakow regarding the organization of the official celebrations of the 325 th Anniversary of the Vienna Victory.
Resolution of the Krakow City Council / Decree of the President of Krakow	On 1.04.2004 the Krakow City Council Resolution no XLII/401/04 established the Programme Board (PB) and the Organization Committee (OC) of the Jubilee, whereas Resolution no XLV/442/04 of 12.05.2004 approved the personnel of the Programme Board and the Organization Committee. The following people were included in the OC: Director of Magistrate as the Chairperson of the Committee, Directors of the Krakow City Hall Departments, Directors of the Municipal Units, Police and Municipal Police Chiefs. The Programme Board finally consisted of 19 people.	The OC was appointed by the decree of the President of Krakow no 229/2008 of 5.02.2008. The OC included the representatives of the organizational units of the Krakow City Hall, of municipal units, the Krakow City Council as well as a team of advisors. Apart from the preparation of the programme of the celebrations and its realization, the OC was also in charge of the development of the programme of promoting these events. 4 thematic teams were created with responsibilities for: highlight events, promotion, education as well as the protocol and foreign contacts.

Rules of procedure/ organizational structure	<p>24.06.2004 is the date of the first meeting of the Programme Board. On 6.07.2004 the PB approved its “Rules of procedure”. The Chairperson and the PB Secretary were appointed. Units dedicated to the celebrations of the 750th Anniversary of granting Magdeburg Rights to Krakow were created within the structure of the City Hall, and their tasks were, among others, to deal with the PB and the OC.</p>	<p>Dedicated offices set up within the Krakow City Hall Bureau of Tourism were responsible for dealing with the OC. At the beginning a timetable was developed for the realization of activities, according to which the programme of celebrations was elaborated. The programme comprised 35 undertakings, including 11 ones proposed by the II High School in Krakow. The undertakings were divided into: highlight events, accompanying events, educational undertakings and other activities, including promotional ones.</p>
Instruction/ project form	<p>On 28.09.2004 “the instruction for those who submit and realize projects” as well as the scheme of issuing positive or negative opinions on the projects were approved. “Project forms” were approved. The invitation to submit programme applications was placed on the “Magiczny Kraków” internet page for many months. Press conferences were organized, which resulted in the publication of press articles which informed about the possibility of submitting jubilee projects. The instruction for those who submitted projects applications included the definition of the Jubilee, the form to fill in by projects applicants as well as the criteria of their assessment. Teams for thematic analyses were created whose task was to give negative and positive opinions and make an initial selection of projects. Approximately 230 applications were submitted, and then they were verified by particular teams.</p>	
Programme of events/ Resolution of the Krakow City Council / Official Order of the President of Krakow	<p>On 15.11.2005 the PB accepted in the form of a table the Programme of the Jubilee together with the costs estimate for the years 2006-2008. On 15.03.2006 the Krakow City Council adopted the Resolution regarding the approval of the Programme. An attachment of the resolution listed coordinators and implementers of particular jubilee assignments.</p>	<p>Official Order of the President of Krakow no 10/2008 of 11 July 2008 regarding the realization of the programme of nationwide celebrations of the 325th Anniversary of the Vienna Victory.</p>

Logo of the event	On 12.10.2004 the logo of the Anniversary of Granting Rights to Krakow was approved in two versions: for common use as well as for the use in special magazines and by specific publishers.	Logo of the event was approved
Decree of the President of Krakow regarding highlight events	The Decree of the President of Krakow no 584/20 of 19.03.2007 regarding the appointment of the Task Team responsible for the audience organization during highlight events.	Decree of the President of Krakow no 1182 of 17.06.2008 regarding the appointment of the Task Team in charge of the preparation and realization of the open-air cultural-educational spectacle.
Additional competitions	Competitions were organized, e.g. ...“Jubilee Souvenir – Jubilee Symbol”, “Jubilee Cakes”, “The oldest Krakow business still working”, “Family with the oldest Krakow history”.	
Additional tools	The official order of the President of Krakow no 1/2005 of 13.01.2005 regarding activities related to the celebrations, which were scheduled for 2005. The order of the President no 457/2007 of 5.03.2007 regarding the approval of celebrations sponsors’ activities consisting in placing spatial elements, advertisement media and advertisements as not subject to charges. The order of the President no 588/2005 of 14.04.2005 regarding the appointment of the Task Team in charge of investments related to the jubilee.	
Manner of work	In the period between 2004 and 30.06.2007 the PB arranged 40 sessions, over 150 sessions and meetings within the scope of work of the thematic teams and individual meetings with subjects making programme proposals. The members of the Programme Board worked on a voluntary basis. In the years 2004-2007 the OC participated in approximately 21 meetings. Finishing their work the thematic teams appointed by the PB produced lists of events and jubilee-related activities. The OC issued opinions on the possibility of the realization of events. Opinions, proposals and decisions of the Committee were successively presented during the following sessions of the PB.	Cyclical meetings of the Organization Committee

Source: own elaborations based on Reports on the activities of: the Programme Board of the celebrations commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow and the Organization Committee as well as the Organization Committee of the celebrations commemorating the 325th Anniversary of the Vienna Victory (Myśliwy, Krakow City Hall, 2008).

The data illustrated in Table 2 lead to the conclusion that a range of tools was implemented in order to organize the celebrations commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow and the 325th Anniversary of the Vienna Victory, principally in the form of documents, both internal as well as resolutions and orders of the President of the City of Krakow. The organization of both undertakings was supervised by appointed teams, such as the Programme Board and the Organization Committee, which included city officials, representatives of the municipal units and external experts. The management of both the events started a long time before they started, and more time was needed in the case of the celebrations commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow, due to the scale and significance of this undertaking. All of the organizational activities regarding the work of the teams were coordinated by specially appointed and dedicated for this purpose units in the structures of the department in charge of the promotion and city tourism. However, the realization of particular undertakings which constituted parts of the programme of events was a responsibility of departments/units which were in charge of the organization of particular tasks. As for the organization of the 750th Anniversary of granting Magdeburg Rights to Krakow, there existed interdependencies as well as interrelations between the Programme Board and the Organization Committee. The Programme Board and the Organization Committee commemorating the 325th Anniversary of the Vienna Victory included, among others, people who worked on a voluntary basis. Therefore, cross-sector cooperation was of crucial importance in order to succeed with these undertakings. In both cases a schedule was elaborated in the form of a table. Also other additional forms or helpful instructions were important in the process of the management of the events. Moreover, e.g. in the case of the 325th Anniversary of the Vienna Victory, the large open-air spectacle was treated in a special way and an additional separate team was appointed to handle its organization. The Programme Board of the 750th Anniversary of granting Magdeburg Rights to Krakow, however, appointed a thematic team which was responsible for the success of highlight events, and which was headed by the art director. A special form of the preparation of the investment also played a significant role, and hence in the case of the 750th Anniversary of granting Magdeburg Rights to Krakow a special team was appointed for the coordination of investment undertakings.

Having analyzed the statistical data regarding the described events (Tab. 3) one may draw the conclusion that they were managed in a successful and efficient manner. The organized events constituted a form of marketing communication with the surroundings, which was received with a high degree of interest both on the part of local citizens and tourists. At that time Krakow was visited by 5% more people and they stayed relatively longer in comparison to the similar time in the previous year. These facts are a result of a well prepared way of the management of these anniversary events.

Table 3. Numerical data

750th Anniversary of granting Magdeburg Rights to Krakow
From 1 to 10.06.2007 over 1,500 artists performed on Krakow stages and approximately 240,000 spectators participated in the cultural events. Overall, there were 68 official guests. 21,966 people in total stayed in 57 accommodation establishments between 1 and 10 June. Approximately 95,000 tourists are estimated to have stayed in Krakow accommodation establishments during this time, i.e. about 5% more than at the same time in the previous year.

325th Anniversary of the Vienna Victory

According to the data supplied by the head of security:

- 1) 8,500 people visited the camp of the victorious Sobieski army and the cavalry show on the Krakow Błonia meadows between the noon and 3 p.m.
- 2) 14,000 people were present on the premises of the “Venimus, vidimus, Deus Vicit” historical spectacle on the Krakow Błonia meadows on 13.09.2008, and additional 5,000 people saw the spectacle from the outside. The triumph of King Jan III Sobieski – the Vienna Victory – the march and the spectacle on the Main Square on 14.09.2008 were seen by 30,000 spectators.

Source: own elaborations based on Reports on the activities of: the Programme Board of the celebration commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow and the Organization Committee as well as the Organization Committee commemorating the celebrations of the 325th Anniversary of the Vienna Victory (Myśliwy, Krakow City Hall, 2008).

5. Conclusion

As it can be seen from the conducted own and secondary research works, the organization of events is becoming a more and more frequently utilized tool in the marketing of the public sector (Niemczyk et al., 2014, p. 510).

Events commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow and the 325th Anniversary of the Vienna Victory are large scale undertakings possessing the characteristics of social marketing projects in tourism for the reason of their large size and the target groups to which they were addressed. The analysis of documents and the conducted research enable one to draw a number of conclusions. Firstly, the programmes of both these events were 100% realized. The tools selected in the process of event management accomplished their role and also made it possible to efficiently and successfully manage these events in spite of the fact that they were not realized within the project management system (Adler & Paliś, 2016)². At present undertakings of a similar kind should be further equipped with additional tools which are available through the project management systems and which were absent in the years 2006-2008, i.e. for example a Gantt chart, which would indicate the time dependencies of particular activities. Above all, similar undertakings should be realized within the project management system, but the tools utilized within the management of these events may certainly be adapted as well as constitute precious inspirations for the application of similar instruments. Secondly, an efficient organization of the described events may be related with various areas, such as an efficient and successful management of the city and its image, local investments, tourism, involvement of the local community. As it can be concluded from the analysis of documents, the management of the scope of the project was well planned, including the division of roles, competencies and responsibilities. Cross-sector cooperation as well as an appropriate selection of partners, including institutions and individuals as experts, were utilized as a tool of management. As it was mentioned before, in the management of these projects an emphasis

² The project management system was formally introduced in the Krakow City Hall in 2011 on the basis of the PMI standard (Project Management Institute) (Dębogórska- Rusak, 2013, p. 37, after: Adler & Paliś, 2016, p. 342).

was placed on the involvement of volunteers. The participation of people working on a voluntary basis constitutes, on the one side, a proof of the involvement of the local community (identification with the city) and on the other side, the care for the budget of public finances (organizers and local citizens). Moreover, as far as the 750th Anniversary of granting Magdeburg Rights to the City is concerned, every individual, organization or institution was entitled to submit their own project to be realized.

Planning of the described events was efficient as far as timing and results are concerned. The programme comprised cyclical events taking place in the city, which constitutes a proof of an effective utilization of the potential and a rational management of the resources and budget. What is more, in the area of the management of the project communication, the events were a tool for marketing communication with stakeholders and played an educational role in the formation of patriotic attitudes, communicated a message based on the history. They may be defined in the category of media pretexts of media impact on the national and international scale. The issue of the emotional involvement of the participants of the anniversary events also deserves attention since this aspect distinguishes a product of this kind against the background of others in the management of events and the management of social projects. The indicators referring to the tourists visiting the city, effects of the promotional and media campaigns as well as a series of investments made for the reason of the organization of the described anniversaries constitute a measurable effect. To sum up, the conducted research is well combined with the issues related to the direction of the development of events management. One can observe that “celebration evolved into a business as well as a growing and vital global industry with new demands, needs and challenges every day” (Bowdin et al., 2011, p. 45). Anniversary events, which are gaining popularity in the field of event tourism, require an adjusted and dedicated methodology of management, which is analyzed in this work.

Bibliography

1. Adler, D., & Paliś, B. (2016). Human Resources in the Methodology of the Project Management in the Public Institutions – Krakow and Poznan City Halls – A Case Study. [in:] R. Oczkowska, A. Jaki & B. Mikula (Eds.), *Knowledge-Economy-Society. Strategies, Concept and Instruments of Management*. Cracow: Foundation of the Cracow University of Economics.
2. Arendt, Ł. (2016). Zarządzanie projektami miejskimi. [in:] Z. Przygodzki (Ed.), *EkoMiasto# Społeczeństwo. Zrównoważony, inteligentny i partycypacyjny rozwój miasta*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
3. BIP (2016). Retrieved on 16/05/2016, from: www.bip.krakow.pl.
4. Bowdin, G.A.J., Allen, J., Harris, R., McDonnell, I., & O'Toole, W. (2012). *Events Management*. London and New York: Routledge Taylor & Francis Group.
5. *Imprezy i wydarzenia kulturalne jako efektywne narzędzie przyczyniające się do rozwoju turystycznego region* (2014). Retrieved on 16/05/2017, from: http://www.mazowieckieobserwatorium.pl/media/_mik/files/276/mrot-impreza-i-wydarzenie.pdf.
6. Jafari, J. (2002), *Encyclopedia of tourism*. Londyn.
7. Jędrzyak, T. (2008). *Turystyka Kulturowa*. Warszawa: PWE.

8. Jurczak, A. (2011). Turystyka kulturowa szansą na rozwój regionu. [in:] T. Krakowiak (Ed.), *Turystyka historyczna szansą na rozwój lokalny*. Stowarzyszenie Obywatele Obywatelom. Łódź-Byczyna: Impuls.
9. Kotler, Ph., Armstrong, G., Saunders, J., & Wong, V. (2002). *Marketing. Podręcznik Europejski*. Warszawa: PWE.
10. Kotler, Ph., & Armstrong, G. (2001). *Principles of Marketing*. Prentice Hall, New Jersey: Upper Saddle River.
11. Kotler, Ph., & Lee, N. (2008). *Marketing w sektorze publicznym. Mapa drogowa wyższej efektywności*. Warszawa: Wydawnictwa Akademickie i Profesjonalne.
12. Mazowiecka Regionalna Organizacja Turystyczna (2014). *Impreza i wydarzenie kulturalne jako efektywne narzędzie przyczyniające się do rozwoju turystycznego regionu. Analiza poszczególnych aspektów strategicznych w kontekście efektywności ruchu turystycznego przy uwzględnieniu specyfiki regionu i potrzeb odbiorców produktów turystycznych*. Warszawa.
13. Niemczyk A. (2012). *Zróżnicowanie zachowań konsumentów na rynku turystyki kulturowej*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
14. Niemczyk, A., Załona, T., & Adler, D. (2014). Gminy w czasie kryzysu gospodarczego XXI w. w świetle podejmowanych działań marketingowych. [in:] A. Czubała, P. Hadrian & J.W. Wiktor (Eds.), *Marketing w 25-leciu gospodarki rynkowej w Polsce*. Warszawa: PWE.
15. Paliś, B. (2016). Organization of Anniversary Events as a Factor of Creating a City Image and Developing Tourism Projects. [in:] J. Wyrzykowski, J. Marak & S. Toczek-Werner (Eds.), *Tourism Role in the Regional Economy Vol 6. Cultural Tourism as a Branded Tourism Product of Cities, Towns and Regions. Theoretical Framework and European Examples*. Wrocław: Wyższa Szkoła Handlowa we Wrocławiu.
16. Paliś, B., & Adler, D. (2016). Społeczna odpowiedzialność biznesu (CSR) w projektach branży spotkań. [in:] J. Żylińska, I. Przychocka & M. Filipowska-Tuthill (Eds.), *Współczesne wyzwania nauk społecznych i ekonomicznych*. Warszawa: Wydawnictwo Uczelni Techniczno-Handlowej im. Heleny Chodkowskiej.
17. Paliś, B., & Adler, D. (2016). Społeczna odpowiedzialność biznesu w zarządzaniu organizacjami publicznymi poprzez współpracę międzysektorową w przemyśle spotkań – dobre praktyki. [in:] K. Krukowski & J. Sasak (Eds.), *Tendencje w zarządzaniu współczesnymi organizacjami publicznymi*. Studia i Monografie, Kraków: Instytut Spraw Publicznych UJ.
18. Pstrocka-Rak, M., & Nowacińska, M. (2013). Uczestnictwo reanimatorów dawnej historii w imprezach turystyki kulturowej na przykładzie inscenizacji Bitwy pod Grunwaldem. *Turystyka Kulturowa*, 4, 5-20.
19. Report on the activities of: the Programme Board of the celebration commemorating the 750th Anniversary of granting Magdeburg Rights to Krakow (I. Myśliwy) and the Organization Committee as well as the Organization Committee commemorating the celebrations of the 325th Anniversary of the Vienna Victory (I. Myśliwy, Krakow City Hall), 2008.
20. Sekuła, A. (2005). Marketing terytorialny. [in:] M. Daszkowska (Ed.), *Marketing. Ujęcie systemowe*. Gdańsk: Wydawnictwo Politechniki Gdańskiej.
21. Szromnik, A. (1996). Marketing komunalny: Rynkowa koncepcja zarządzania gminą. *Samorząd Terytorialny*, (3), 3-19.
22. Szromnik, A. (2007). *Marketing terytorialny. Miasto i region na rynku*. Kraków: Wolters Kluwer Polska.

23. Szromnik, A. (2010), *Marketing terytorialny jako efekt poszerzania i pogłębiania rynkowej orientacji podmiotów gospodarujących. Kreowanie wizerunku miast, strategii i techniki*, Warszawa. Retrieved on 7/05/2010, from: http://wsp.pl/file/183_252033808.pdf.
24. Tomczykowska, P. (2014). Święta ulic toruńskiego Starego Miasta – nowa forma promocji dziedzictwa kulturowego w turystyce miejskiej. *Turystyka Kulturowa*, 5, 6-27.
25. Walczak, W. (2009). *Rola fazy planowania w zarządzaniu projektem*, eMentor.edu.pl.
26. Zdon-Korzeniowska, M. (2012). Budowa marki regionalnej na wybranych przykładach województw Polski. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego*, 19, 130-141.

Chapter 38

Management of Sustainable Events – Case Studies¹

Donata Adler, Beata Palis

1. Introduction

This article deals with the issues related to the management of sustainable events. Due to the fact that the principles of sustainable development correspond well with the strategy of the functioning of present-day organizations, these issues also exert an influence on the organization of sustainable events, meetings, conferences.

The purpose and assumption behind the organization of an event in a sustainable manner is to minimize the negative impact of the meeting on the environment. The event may be organized not only in an ecological but also a socially-responsible way. The arrangement of a conference in accordance with the assumptions of CSR, taking into consideration social, ethical and ecological aspects during its realization is an innovative approach since this activity may bring numerous benefits to every organization. The benefits are visible not only for the environment but also for the image of the company as well as a higher prestige of the organized event. Moreover, this constitutes a positive contribution to the social development, and the cooperation with social partners, non-governmental organizations may lower the costs of the organization of the event (Oczyp, 2017). Such a perspective raises the value of the described issue for the process of decision making in the management of a company (compare: Porter, 1991).

The purpose of the article is to analyze the manner of the management of sustainable events and to examine what tools are implemented by subjects for their organization. The research works were focused on the manner, course and compatibility with the norms of the organization of “green” events as well as the impact of such an activity on other issues related to the organization management. It contains information about how to achieve such an effect, that is what is important from the point of view of the organization and management of a socially responsible event. Both international and Polish norms and certificates regarding sustainable events have been analyzed. Scenarios of good practices have been presented on the basis of case studies.

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The following research tools have been utilized: an analysis of the literature on the subject, analysis of documents, analysis of secondary data, participant observation, free interview and case study. As far as the management of sustainable events is concerned the conclusions correspond well with the modern concepts of management and the concepts of sustainable development in the management sciences. A sustainable approach bears its significance from the point of view of the management, including the attitudes of investors for whom more and more frequently the financial results only are not enough when it comes to making strategic decisions (Ratajczak, 2010, p. 78), but instead they take into account all of the responsible and ethical activities undertaken by the management personnel.

2. A sustainable event – basic theoretical assumptions

The purpose and the assumption behind the organization of an event/conference in a sustainable manner is to minimize the negative impact of the meeting on the environment. Nowadays more and more companies pay attention to the ecological aspects since the principles of sustainable development correspond well with the strategy of the functioning of the company. These issues should translate into the organization of ecological, sustainable meetings, or conferences and other celebrations (Oczyp, 2017).

Per aspera der astra (through hardships to the stars) is a Latin saying which corresponds with the idea of sustainable development which is already referred to in Art. 5 of the Constitution of the Republic of Poland, which reads “The Republic of Poland shall safeguard the independence and integrity of its territory and ensure the freedoms and rights of persons and citizens, the security of the citizens, safeguard the national heritage and shall ensure the protection of the natural environment pursuant to the principles of sustainable development” (The Constitution..., 2008, p. 7). The right to the clean environment is strongly correlated with the obligation resulting from Art. 86 of the Constitution, which reads: “Everyone shall care for the quality of the environment and shall be held responsible for causing its degradation” (Ploszka, 2010, p. 23). In accordance with the Environmental Protection Law Act of 27 April 2001: Journal of Laws of 2001, No 62, item 627, sustainable development is defined as: “socio-economic development in which a process takes place that integrates political, economic and social activities, maintaining the biological equilibrium and the continuation of elementary natural processes, in order to ensure the possibility of satisfying the basic needs of particular communities or individual citizens belonging to the present-day or future generations” (Jurczak, 2010, p. 10). The important role of source documents, such as Agenda 21, the Lisbon Group Document, the Rio Declaration on Environment and Development, etc. (after: Piontek, 2002) should also be emphasized. The European strategy assumes a vision of the social market economy based on intelligent and sustainable development as well as on social inclusion (Gołębiowska, 2015, pp. 171-179). In the Polish literature on the subject this issue is analyzed broadly by B. Piontek in the work “The concept of sustainable and permanent development of Poland” (2002 and Strategy for Poland, 1999).

Speaking of the organization of events in a sustainable manner we refer to the ethical and socially responsible principles of management performed by economic subjects on the local and global scales alike (Adler et al., 2015). The meetings industry is one of the areas of tourism which deserves special attention. In tourism the concept of sustainable development encompasses the economic, ecological and socio-cultural aspects. Essentially this is because of the idea that

tourism should become economically profitable in the long run (for the receiving community), ecologically neutral and socially justifiable. These three pillars of sustainability refer to the tourism economics, tourism participants (both tourists and the community receiving tourists) and tourist destinations. All of these aspects of sustainable development of tourism should be treated with equal importance since combining them together may bear fruit resulting in the creation and development of sustainable tourism. It is indicated in Agenda 21 that in order to ensure pro-ecological development of tourism one should take into account both the new regulations or enhancements of the existing legal means aimed at the protection of health and the environment but also the organization, at the initiative from the tourism branch, of programmes aiming to ensure a responsible and ethical management of tourism products (Kazimierczak, 2009, p. 14). The organization of events in a sustainable manner may also constitute a valuable initiative.

Bearing in mind all of the above theoretical considerations, the organization of sustainable events should be taken into account from the point of view of the management of organizations regardless of their industry or branch. This results from the fact that the strategy of sustainable events, which accounts for the three pillars of sustainable development, is related to the management through:

- a rational utilization of natural resources and the limitation of the negative impact on the environment,
- an influence on the social development taking into consideration the specific qualities of various groups,
- economic efficiency and stability.

3. Principles of the organization of sustainable events

Specific principles or norms referring to the organization of events in a sustainable manner exist. In this case factors such as the selection of local partners, suppliers and subcontractors should be taken into consideration. There are more and more services and products available on the market, which are useful when it comes to the organization of green events. Applying checklists and basing the organization of an event on the existing standards may be helpful (Janek & Mieszkowicz, 2010). The two principal standards introduced for the implementation while realizing sustainable meetings are: the BS8901 standard and the ISO 20121:2012 standard. The BS8901 standard was developed by the British Standard Institution in 2007. It is based on three priorities: minimizing the negative impact on the natural environment, exerting a positive influence on the local community, and reducing the costs of production and exploitation (Gerwin, 2009). The 20121 standard was introduced by ISO on 15 June 2012, in this way providing a model of the system of the sustainable management of events based on the Deming cycle (PDCA) (Oczyp, 2017; *Sustainable...*, 2012). The management of a sustainable event may also be based on the following norms: the S.A. 8000 norm, the ISO 14001 standard, the ISO 9001 standard, Green Events Certification, Green Festivals (Mieszkowicz & Bielski, 2013), Green Office, or simply an energy audit or an initiative towards reporting (*Global Reporting Initiative GRI*) (more: Paliś & Adler, 2016, pp. 734-755).

In accordance with the standards regarding the organization of this type of events, it is important to take into consideration the following elements (after: Adler, 2010, pp. 68-71; Mieszkowicz, 2012; Oczyp, 2017):

1. **Location:** while choosing a location for an event one should pay attention to the fact whether a given building is ecological – this criterion is met by many new, appropriately adapted buildings. Sustainable buildings may be found in some catalogues which contain information about buildings realizing sustainable meetings (Buchwald, 2012). It is also a good idea to search for hotels and conference centres which possess the Green Key sign, awarded to environment-friendly accommodation establishments. Starting cooperation with a community centre or a theatre may also constitute a solution.
2. **Catering:** one should choose an offer which would ensure ecological dishes, prepared, as far as it is possible, from seasonal products of local origin. Coffee and tea as well as other products should have the Fair Trade label. The excess of food which is not consumed should be transferred to local Food Banks, whose mission is among others to prevent food waste, so that they could redistribute it. It is recommended to use reusable vessels.
3. **Promotional materials and advertisements:** one should, as far as it is possible, limit or resign from printed materials and replace them by the electronic ones. If it is necessary to produce them, one should pay attention to the fact that they should be made from ecological components which could be reused, possibly at the time of the successive events. Banners, roll-ups may be replaced by pictures shown with the help of projectors. It is recommended to use recycled paper.
4. **Cooperation:** organizing an event one may start the cooperation with the subjects of social economy, which may be helpful during the realization, i.e. foundations, associations, social cooperatives, Vocational Development Centres, whose aim is to create jobs for the people who face the threat of exclusion or marginalization.
5. **Recycling and offset:** wastes which may be recycled should be transferred for recycling by throwing them to appropriate containers which already are popular and accessible. Segregation of wastes is important. Attention should be directed to the issues of neutralizing our climatic trace, that is reducing the amounts of carbon dioxide generated during the time of the conference. This may be achieved with the help of a special calculator which calculates “the climatic trace”, and then the emission of CO² may be neutralized e.g. by planting trees (Oczyp, 2017).
6. **Savings:** one should pay attention to the issues of savings, e.g. using paper printed on both sides, saving water or energy.
7. **Trips and transportation:** using and promoting public transportation, e.g. buses, coaches, coaches powered by solar batteries as well as electric ones (Mieszkowicz, 2012, p. 23).

The application of the presented principles in the organization of events in business practice constitutes the subject of the research works on case studies in this work.

4. The manner of the management of sustainable events – case studies

In the period between February and May 2017 the authors carried out their own research works through the analysis of the tools utilized in the process of the management of selected sustainable events.

The research works were focused on the manner, course, compatibility with the norms of the organization of “green” events as well as the impact of such an activity on other issues related

to the organization management. The following research tools were implemented: an analysis of the literature on the subject, analysis of documents, analysis of secondary data, participant observation, free interview and case study.

The need for the organization of events in a sustainable manner appeared in the circles of organizers of competitions and Olympic games because following their organization a number of negative consequences for both the environment and the local community were noticed. The principles of sustainable events were implemented for the first time during the Winter Olympic and Paralympic Games in Vancouver in 2010. Sustainable events may include scientific, cultural, artistic or industry-related ones². Table 1 illustrates selected examples of events organized in a sustainable manner. The tools implemented within the management of the events have been analyzed.

Table 1. List of events organized in a sustainable manner – case studies

Kind of activity	Name of event		
	Events related to the Polish Presidency in the EU in 2011	Sustainable events as a chance for the competitiveness of regions – the conference of the Krakow City Hall and the Aeris Futuro Foundation – 2010	CSR Fairs 2012 organized by the Responsible Business Forum
Management of the event	Leading working groups related to the environmental aspects of the activities of the European Union. Encouraging persons responsible for the Presidency to organize events and tenders in accordance with the principles of sustainable development; organizing training for the Presidency Corps on the subject of green public procurement; preparing and distributing guidebooks regarding green events.	Cross-sector cooperation, internal and external communication, standards of projects management.	In accordance with the Green Events certificate of the Aeris Futuro Foundation.
Partnerships	Cooperation with non-governmental organizations specializing in the area of pro-ecological attitudes of citizens, competitions regarding subsidizing ecological issues.	Public administration, Polish and English non-governmental organization, entrepreneurs representing the market of ecological products.	Greater involvement of the Fairs participants.

² More: www.aerisfuturo.pl.

Trips and transportation	Public and municipal transportation (buses, coaches); coaches powered by solar batteries, 3 electric cars.	Carpooling, public transportation, pedestrians, bicycle, teleconferences and on-line transmissions.	Thanks to the prepared procedures transportation needs were reduced.
Conference and hotel establishments	Located in city centres, new or refurbished ones and adapted for the needs of disabled people; as for the decoration of the establishments – carpets and furniture made from natural fibres, non-flammable, reusable in other establishments; plants in pots in the rooms, which were later returned to the gardening centre; as for recycling – dedicated containers for glass, paper, plastic and aluminium.	Adaptation of a Room in the Krakow City Hall – a lower consumption of water and energy, a location near the Main Train Station, labelling the event in accordance with the standards of a sustainable event.	Modern, energy-saving, conference establishment located in the city centre (Copernicus Science Centre).
Catering	Preferences for the Polish cuisine as well as regional and local suppliers; collective packaging for foods and equipment, fresh fruits and vegetables, planning purchases and portions on the basis of the data obtained from the accreditation, promotion of healthy foods from ecological plantations; a publication promoting the Polish cuisine based on local products.	Ecological menu, local suppliers, entrepreneurs representing the market of services delivered by ecological producers.	Ecological menu, local suppliers, entrepreneurs representing the market of services delivered by ecological producers.
Communication, promotion, education	As for the internal communication – a system of exchanging documents and updates (Extranet); as for the external communication – a web page and an electronic system of accrediting; teleconferences, telephone conversations, email correspondence, reusable exhibition equipment and materials; recyclable pencils; gadgets and presents made by Polish artists and craftsmen; promotional publications in the form of tablet	Electronic materials, multimedia presentations, information materials available on-line, materials for the participants on memory sticks, limited amount of printing on recycled paper.	One introduced the Programme of Reusing the Materials which were distributed during the event among its participants. Thanks to this programme all the materials were subject to recirculation, selection, redistribution and recycling.

	applications, training for 120 employees on the subject of green public procurement; organization of 2 conferences in accordance with the standard of Green Events.		
Wastes	Transferring information-promotional materials which were not suitable for further usage for ecological utilization; in 2012 planting trees in the quantity corresponding to the value of wastes subjected to recycling; collections of scrap paper, scrap metal and banners.	Event recycling and offset – calculation of the climatic trace of the conference, planting trees in order to neutralize the climatic trace.	A responsible, selective wastes collection was carried out at every stage of the event (preparing, performing, cleaning). The amount of the wastes was optimized thanks to an appropriate planning.
Other	Focusing attention on the aesthetics of landscape, e.g. the Ministry of Foreign Affairs competition “Warsaw in flowers and greenery 2011”; the Ministry of Environment support for the festival “Day of green Presidency” (gifts – 300 pansies representing the colours of the EU and Poland); returning the beach in Sopot back to its original state.	Fairs with ecological products – commercial partners and non-governmental organizations, promotion of ecological products entering the market, e.g. sanitary items, bicycles generating electric power, sleeping bags made from bottles as well as electric vehicles.	One introduced the “Carbon Offset” programme by planting an appropriate number of trees which will consume an adequate amount of CO ₂ within a particular period of time.

Source: own elaboration on the basis of “Polish Presidency of the Council of the European Union. Final report on the preparation and performance of the Presidency” approved by the Council of Ministers on 17 April 2012, Warszawa, pp. 90-92 as well as on the basis of www.zielonewydarzenia.pl, www.odpowiedzianybiznes.pl.

Whether an event is sustainable is determined by its compatibility with the norms in the areas of the cooperation with the local community, location, catering, wastes management, transportation, offset, promotion. The presented examples of green events in each of these categories proposed specified solutions, partly typical ones, e.g. catering based on a local menu, using public transportation, limiting the amount of printing of promotional materials; and partly unique ones addressing a particular meeting, in the form of dedicated competitions or references to local problems or locations, e.g. returning the beach in Sopot to its original state.

To sum up, the presented organizations carry out sustainable events within the management system in accordance with the existing norms, and their course corresponds with the PDCA model as well as with the criteria of certificates.

5. Conclusion

The conducted research works referring to the organization of sustainable events enable one to draw a number of conclusions. Sustainable management of events is a relatively new topic, and one may observe a continuous necessity to raise the awareness on the subject of the implementation of green standards. One should highlight the fact that on the Polish market the standards of sustainable events have been implemented at the same time as is the case around the world (since the years 2007-2010). Such a style of management is compatible with the strategy of sustainable development – the Europe 2020 Strategy, the direction of the European and global trends.

As can be concluded from the analyzed material, organizations carry out the presented events in accordance with the guidelines of the BS8901 norm, the ISO 20121 standard or Green Events, following the scenario of sustainable activities in the project. Looking for an answer to the question of how the organization of events in a sustainable manner relates to other issues of the organization management, one may conclude that the adoption of the model of managing events in a sustainable manner:

- is compatible with the mission and the strategy of socially-responsible organizations,
- permits to rationally manage own resources and the resources of the surroundings – to evaluate the incurred costs,
- helps with the integration within the team through shaping responsible attitudes,
- contributes to the creation of the image of a responsible employer,
- exerts an impact on the local natural and social environment.

Analyzing particular tools of the management of an event of this type it is difficult not to emphasize important issues in the changing environment, which support these activities. Hence, the popularization of new technologies constitutes a chance for the development of sustainable events. The emergence of the idea of the smart city requires that the local community, including business units, assumes the responsibility for the quality of life in the city and for the implementation of social and environmental innovations, including sustainable events. A broader range of the obligatory social reporting signifies a calculation of the impact of the organized events on the surroundings, an evaluation according to the PDCA model. The organization of events in a sustainable manner results in an increase in the competitiveness through the quality of services, attractiveness of the offer, interest of the media. Cross-sector cooperation as the management of relations signifies a selection of sustainable stakeholders in the chain of supplies. As a result, one promotes the infrastructure of sustainable suppliers, establishments, partners and supports the local entrepreneurship and good green practices.

In the long term, the organization of sustainable events signifies an innovative and competitive economic development, a high quality of life in the clean environment, safety and health of various social groups (Mieszkowicz, 2012, p. 10). Taking into consideration the organization management, the introduction of green events reduces the risk related to business activity, prepares for the coming unavoidable changes in the legal system resulting from the necessity of the protection of the environment.

Bibliography

1. Adler, D. (2011). Zielone Wydarzenia... czyli jakie? *Magazyn Brief*, 4(138), 68-71.
2. Adler, D., Chmura, J., Cieciora, M., Czechowska, K., Korenik, D., Niedźwiecki, A., & Wiśniewska, J. (2015). *Wpływ etyki na bezpieczeństwo obrotu gospodarczego*. Warszawa: Wydawnictwo Texter Sp. z o. o.
3. Buchwald, J. (2012). *Kraków. Małopolska. Spotkania zrównoważone*. Wydawca Województwo Małopolskie, Departament Turystyki, Sportu i Promocji, Urząd Marszałkowski Województwa Małopolskiego.
4. Environmental Protection Law Act of 27 April 2001: Journal of Laws of 2001, No 62, item 627.
5. Gerwin, M. (2009). *Zrównoważone spotkania biznesowe. Poradnik dla organizatorów*. Sopot, Warszawa: Earth Conversation.
6. Gołębiowska, E. (2015). Zarządzanie organizacjami w świetle zrównoważonego rozwoju. *Prace Naukowe Wyższej Szkoły Bankowej w Gdańsku*, 42, 171-179.
7. Janek, J., & Mieszkowicz, J. (2010). *Organizacja Wydarzeń w Zielonym Standardzie*. Kraków: Wydawnictwo Fundacji Aeris Futuro.
8. Jurczak, A. (2011). Zrównoważony rozwój. [in:] T. Jemczura & H. Kretek (Eds.), *Zrównoważony rozwój – debiut naukowy 2010*. Racibórz: Wydawnictwo Państwowej Wyższej Szkoły Zawodowej w Raciborzu.
9. Kazimierzczak, M. (2009). Turystyka zrównoważona synonimem turystyki zorientowanej etycznie. *Studia Periegetica*, (3), 9-21.
10. Mieszkowicz, J., & Bielski, P. (Eds.). (2013). *Zielone festiwale, praktyczny poradnik, doświadczenia i najlepsze praktyki przy organizacji festiwali w Polsce i za granicą*. Kraków: Wydawnictwo Fundacji Aeris Futuro.
11. Mieszkowicz, J. (Ed.). (2012). *Praktyczny poradnik. Jak zorganizować wydarzenie w zielonym standardzie? Doświadczenia i najlepsze praktyki polskiej prezydencji w Radzie UE*. Fundacja Aeris Futuro i Ministerstwo Spraw Zagranicznych.
12. Oczyp, P. (2011). *Organizacja zrównoważonych eventów – ekologia i nie tylko*. Responsible Business Forum. Retrieved on 27/05/2017, from: www.odpowiedzialnybiznes.pl.
13. Oczyp, P. (2012). *Nowy standard wspomagający zarządzanie zrównoważonymi wydarzeniami – ISO 20121*. Responsible Business Forum. Retrieved on 25/05/2017, from: www.odpowiedzialnybiznes.pl.
14. Oczyp, P. (2017). *Zielone wydarzenia. Jak zorganizować ekologiczny event?*, Responsible Business Forum. Retrieved on 17/05/2017, from: <http://www.ekologia.pl/srodowisko/ochrona-srodowiska/organizacja-zrownowazonych-eventow-ekologia-i-nie-tylko,13829.html>.
15. Paliś, B., & Adler, D. (2016). Społeczna odpowiedzialność biznesu (CSR) w projektach branży spotkań. [in:] J. Żylińska, I. Przychocka & M. Filipowska-Tuthill (Eds.), *Współczesne wyzwania nauk społecznych i ekonomicznych*. Warszawa: Wydawnictwo Uczelni Techniczno-Handlowej im. Heleny Chodkowskiej.
16. Piontek, B. (2002). *Koncepcja rozwoju zrównoważonego i trwałego Polski*. Warszawa-Kraków: PWN.
17. Płoszka, A. (2011). Zrównoważony rozwój a prawa człowieka. [in:] T. Jemczura & H. Kretek (Eds.), *Zrównoważony rozwój – debiut naukowy 2010*. Racibórz: Wydawnictwo Państwowej Wyższej Szkoły Zawodowej w Raciborzu.

18. Polish Presidency of the Council of the European Union. Final Report on the Preparation and Performance of the Presidency” Approved by the Council of Ministers on 17 April 2012, Warszawa.
19. Porter, M.E. (1991). America’s Green Strategy. *Scientific American*, 264(4).
20. Ratajczak, M. (2010). Implementacja strategii CSR w odniesieniu do środowiska naturalnego jako ważny element strategii rozwojowych współczesnych przedsiębiorstw. *Zeszyty Naukowe Szkoły Głównej Gospodarstwa Wiejskiego w Warszawie. Problemy Rolnictwa Światowego*, 10(4), 74-81.
21. Strategy of Sustainable Development for Poland till 2025, Resolution of the Sejm of the Republic of Poland of 2 March 1999.
22. *Sustainable events with ISO 20121*, International Organization for Standardization, Geneva, 2012.
23. The Constitution of the Republic of Poland (2008).
24. www.aerisfuturo.pl. Retrieved on 27/05/2017.
25. www.cpe.info.pl. Retrieved on 20/04/2017.
26. www.globalreporting.org. Retrieved on 12/03/2017.
27. www.zielonewydarzenia.pl. Retrieved on 27/05/2017.

Chapter 39

Reliability Determinants of the Value of Transport Company Fixed Assets Components¹

Stanisław Młynarski, Jarosław Kaczmarek

1. Introduction

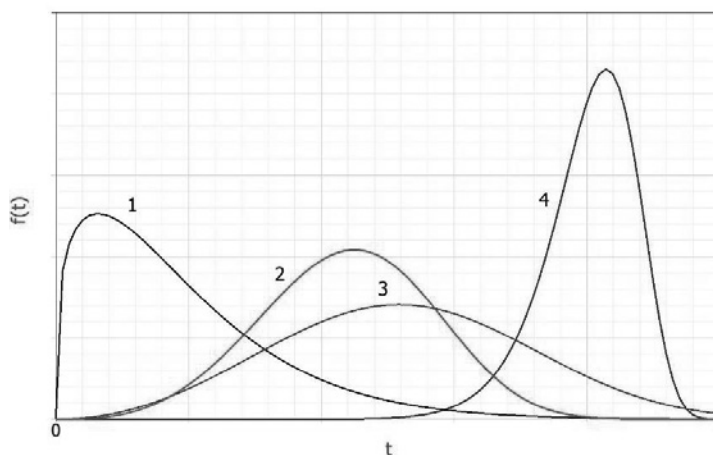
We can talk about rational management of fixed assets use when with given resources the maximum value of output (products or services) is reached. Consequently, rational management of fixed assets can be done in two ways. These are: maximisation of the output value employing the given resource, i.e. production technical means, and by minimising the costs of the use of fixed capital resources (machinery and vehicles) to produce goods (Kaczmarek & Młynarski, 2012, pp. 191-204). The execution of these two postulates can be sought by way of the utilisation of production means that satisfy high reliability requirements and standardised service life. In the considerations on the rationality of management and effectiveness of assets components, on the other hand, one of the most significant factors is the value of assets components that are used as production technical means. The value of these components match the benefits derived from possessing them, and these are directly proportional to durability and reliability of their functioning (Byrski & Luchter, 1972, pp. 22-24; Kaczmarek & Młynarski, 2006, pp. 259-274).

The level of operation reliability depends on physical and technological factors of the given component of the fixed assets, which is associated with its physical and economic wear and deterioration of technical condition.

A natural effect of the use of machinery and vehicles is the occurrence of their failures (Magiera & Piec, 1994). The earliest to be revealed, as early as testing of the prototype, are design errors induced failures (Fig. 1, characteristics 1), a little later – those caused by technological problems (curve 2). The failures represented by curve 3 result from incorrect operation and natural ageing (degradation) processes to which structural and so-called operational (e.g. lubricating greases) materials are subjected. A machine of well-developed design and technology and used properly behaves after model 4 in Figure 1.

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Figure 1. Regularities occurring in the use of mass products (causes of failure)

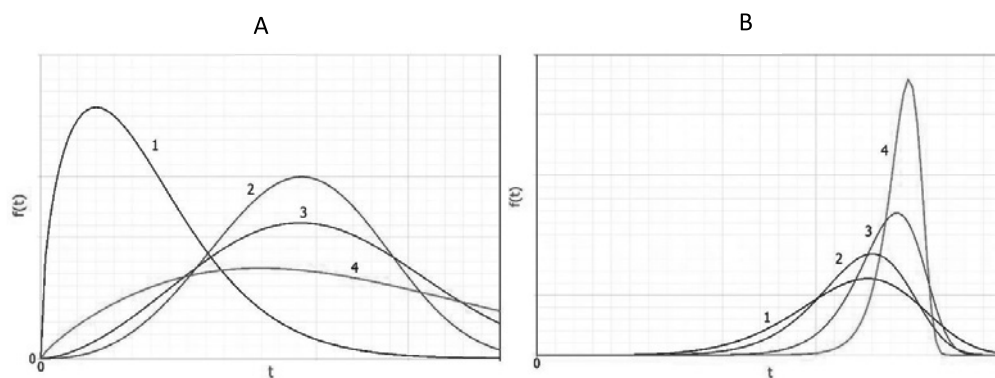


Notes: causes of failure: 1 – design related; 2 – technological; 3 – use-related for objects of prototype design (immature); 4 – use-related for objects designed correctly and used correctly.

Source: own elaboration based on: (Magiera & Młynarski, 2003, p. 327).

The higher the technical and technological advancement of the producer the slenderer curve 4 (minor dispersion of reliability distribution), and the further away from the scale origin its maximum (this indicates high service life) (Magiera & Młynarski, 2003, pp. 325-335). A well-developed design should include the durability of all the components of the structure specified and foreseen by the producer. Such a case, concerning a structure refined reliability-wise, is shown in Figure 2B, where the components (sub systems) of an object have a statistically similar durability.

Figure 2. Components up times of object



Notes: A – underdeveloped object in respect of reliability; B – structurally mature object of similar durability of components. Subassemblies: 1, 2, 3, 4.

Source: own elaboration.

Such properties of an object are difficult to achieve even with the current state-of-the-art and calculations potential. Design engineers and producers of mass goods such as cars enjoy favourable conditions since to improve the quality of their products they have at their disposal reliable statistical, operation-based data on failures. The case of the production of large technical objects structurally intricate manufactured individually is more complex. Designing of reliability level only on the basis of operation-based data is then ineffective. Such objects require construction methods that enable the estimation (forecasting) of future behaviour of the object (Oprędkiewicz, 1995). The knowledge of object's future failure is of considerable technical significance for the prevention of some failures by way of preventive actions and applying this information to newly designed machinery and vehicles. In respect of economy this knowledge seems to be much more important. This is related to several factors that affect the incurred expenditure on the purchase of ineffective machinery, which entails the costs of failing to execute a contract and expenditure for repair works. Since the actual (intrinsic) value of a machine as a production means depends on the benefits from possessing it, there is a clear relationship between the reliability of the machine and its intrinsic value. Therefore, searching for and analysing these relationships for the estimation of the value of the technical means of production and the management of the company's fixed assets are self-evident. The impact of reliability on the production potential and the value of fixed assets components executing the production tasks is very significant in the activities of transport enterprises. In what follows the problems of the analysis of costs associated with the estimation of the assets components from the group of transport means.

2. Technical-economic reliability indicators of transport means

Reliability of a technical object is a property that defines the quality of the execution of the tasks by the given object considering random changes of its functional characteristics. Quantitatively the object's reliability is expressed by measures called reliability indicators. Their type and number are selected adequately to the given object and task (Borowiecki et al., 2004, pp. 155-167).

The technical-economic indicators of vehicle reliability can be divided into two groups:

1. indicators characterising vehicle reliability in the technical aspect in the period of operation. These include:
 - λ – failure rate,
 - T_o – amount of work done,
2. indicators characterising vehicle reliability in the aspect of waste of resources, materials loss and resulting cost indices. These include:
 - vehicle repair expenditure factor (1):

$$K_r = \frac{E_r}{A} \quad (1)$$

where:

A – vehicle acquisition cost,

E_r – repair cost and spare parts cost during tests.

- availability factor (2):

$$K_g = \frac{T_e}{T_e - T_n} \quad (2)$$

where:

T_e – operation time,

T_n – repair time,

- factor of vehicle technical use (3):

$$K_w = \frac{T_n \cdot n}{t} \quad (3)$$

where:

T_n – mean time of vehicle repairs during operation period,

n – number of failed elements in a period of time $(0, \dots, t)$,

t – time of observation.

The proper use of reliability indicators has an impact on the determination of the economic time of operation period. In the majority of real life situations the vehicle reliability reduction leads to the reduction of the likelihood of reaching high economic effects from its functioning. Conversely, an increase of vehicle reliability will increase – within some boundaries – the probability of reaching favourable economic effects (Czarnek, 1982).

An increase of the probability of reaching favourable economic effects, however, is not the only result of reliability increase. If out of the total sum of the costs of system construction and operation some part that directly determines the system reliability were separated out, an increase of these costs might be noticed in some cases, provided the reliability increases. The group of costs in question can be called “reliability costs”. These include, *inter alia*, the costs of repairs and maintenance, the costs of upgrading the staff’s qualifications and the costs of improving the quality of components and the whole system of operation (Ciesielski & Sudrowicz, 1993; Copeland et al., 1997; Siudak, 2001).

The interdependencies between reliability, operation costs and economic effects of company fixed assets utilisation are not easy to identify. The knowledge of them gives an opportunity to compare the effectiveness of objects of various reliabilities on the basis of which the value of fixed assets components can be estimated (Młynarski & Kaczmarek, 2009; 2015, pp. 4954-4971). The possibility of comparing assets in this aspect is a starting point for assets valuation and optimisation of company’s expenditures. For a transport enterprise one of the major investment expenditure is the acquisition of transport technical means (vehicles). Therefore, next to the information on the price, the information on the reliability indicators of vehicles offered for sale is a basis for specifying the fundamental techno-economic values that determine the effective functioning of an enterprise. The calculation of the costs of technical servicing and indispensable post failure repairs can be done using the presented formulae.

The mean cost of technical servicing can be calculated from empirical data as:

- mean cost of a single maintenance operation (4):

$$C_{OT} = \frac{\sum_{j=1}^{N(0)} \sum_{i=1}^{n_j^{OT}} C_{ij}^{OT}}{\sum_{i=1}^{N(0)} n_j^{OT}} \quad [zł/1 \text{ operation}] \quad (4)$$

– mean cost of maintenance per 1000 km mileage (5):

$$C'_{OT} = \frac{\sum_{j=1}^{N(0)} \sum_{i=1}^{n_j^{OT}} C_{ij}^{OT}}{\sum_{i=1}^{N(0)} l_j} \quad [zł/1000 \text{ km}] \quad (5)$$

where:

C_{ij}^{OT} – cost of i -th maintenance operation on an j -th vehicle,

n_j^{OT} – number of maintenance operations on an j -th vehicle,

l_j – mileage of an j -th vehicle,

$N(0)$ – number of vehicles.

The mean repair cost represents an expected value of repair costs $E(C_n)$ or vehicle maintenance costs $E(C_n)$. To estimate the mean repair cost (OT) the sum of mean labour costs and the costs of spare parts used for the identification and removal of the failure should be calculated.

The indicator of mean repair cost OT of a vehicle per mileage unit can be presented as (6):

$$C_n = C_r + C_{cz} \quad (6)$$

Mean labour cost is (7):

$$C_r = \frac{1000}{\sum_{j=1}^{N(0)} l_j} \sum_{j=1}^{N(0)} \sum_{i=1}^{n_j^{(r)}} C_{ij}^{(r)} \quad [zł/1000 \text{ km}] \quad (7)$$

Mean cost of spare parts is expressed by formula (8):

$$C_{cz} = \frac{1000}{\sum_{j=1}^{N(0)} l_j} \sum_{j=1}^{N(0)} \sum_{i=1}^{n_j} C_{ij}^{(cz)} \quad [zł/1000 \text{ km}] \quad (8)$$

where:

C_n – mean repair cost per 1000 km mileage,

$C_{ij}^{(r)}$ – labour cost of i th repair on j th vehicle,

$C_{ji}^{(cz)}$ – cost of spare parts in i th repair on j th vehicle.

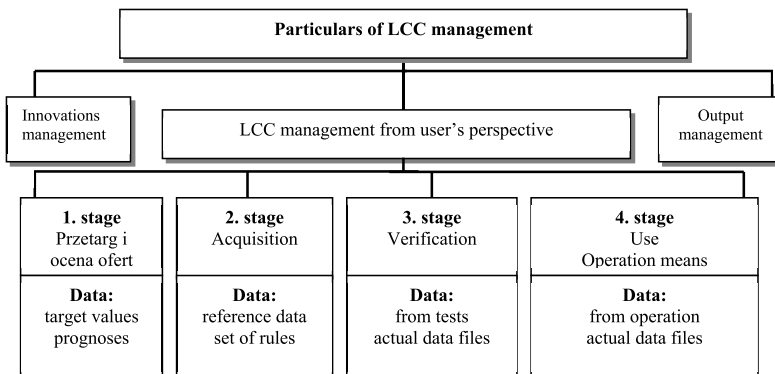
The presented indicators are determined by the vehicle reliability properties and they are also indicators of operation costs. Also, operation costs have a degressive impact on the final value of the benefits derived from the use of the assets and are an important factor in developing the actual value of the assets.

3. Fixed assets life cycle cost and modelling its value

Maintaining transport costs within reasonable limit is particularly important for the rational functioning of a business. The requirements of modern transport generate increased investment expenditure and operating expenses. The expenditure to acquire new vehicles is a substantial part of these expenses. To a large extent operating costs depend on the vehicle correct design which defines its durability and reliability as well as maintenance labour consumption, or traction and fuel energy expenditure. These factors always considerably affect the vehicle's value. It is a case of a kind of inversely proportional relationship – the less expensive the operation the higher the vehicle's value (Borowiecki et al., 1997, pp. 74-75; Janasz, 1991).

These circumstances have induced transport enterprises to use an indicator that covers both investment expenditure (acquisition cost) and vehicle operation costs. Such strategy clearly indicates the interdependence between operation costs and vehicle's value. The indicator can also be applied to vehicle individual assemblies, justification of introducing new materials or technologies. It can also be a basis for the company to forecast the costs of operation and service life optimisation. *LCC* (*Life Cycle Cost*) of a vehicle represents the objective function in costs optimisation. A scheme of the hierarchy of procedure elements is shown in Figure 3 (Strauß, 1999).

Figure 3. Vehicle life cycle cost management



Source: (Strauß, 1999).

It should, however, be noticed that the use of this indicator can be applied only to vehicles or their assemblies of identical main operating parameters. It is not reliable in case of, for instance, various series of vehicles or modernisation that modifies the main performance properties of a vehicle or its assemblies.

3.1. Components of assets life cycle cost (LCC)

The vehicle life cycle cost can be defined by the formula:

$$LCC = K_i + K_o + K_u \quad (9)$$

The group of investment expenditure K_i covers the costs of acquisition of the vehicle, set of spare parts (initial lot of corrective maintenance), workshop instrumentation (including diagnostics tools), technical documentation, instructions for use and servicing, modernisation and additional investments in workshop facilities. This group also includes the costs of vehicle decommissioning and disposal or resale.

The group of maintenance costs K_o covers the costs of implementation, preparation of vehicle for use, the costs of inspection, scheduled and routine repairs. Costs K_u cover the costs of use of the vehicle, i.e. together with costs caused by the vehicle impact on transport infrastructure as well as expenses on energy for transport purposes.

Costs K_o and K_u should actually be referred to the entire period of vehicle use. For modern designs this period is adopted in the range of five to twenty years depending on the type of vehicle. In some cases shorter periods are adopted, for instance when after this period the vehicle's basic systems are replaced. In some calculations the interest rate in discounts and the averaged price increase index are also taken into account.

In practice, simplified LCC calculations are sometimes done, disregarding some cost components that have a minor effect on the result, or those similar to comparable alternatives. For example, a limited number of cost components can be taken into account as follows:

- among costs K_i – the price of vehicle, spare parts, documentation,
- among costs K_o – costs of inspections and costs of scheduled and corrective repairs,
- among costs K_u – expenses on energy used for transport purposes (the costs associated with the vehicle impact on infrastructure are usually neglected as difficult to determine particularly in case of a new vehicle that has not been used for long).

3.2. Fixed assets LCC factorisation

The life cycle cost of a technical object used for increasing the company's assets consists of cost fractions derived from various factors depending on the type and rate of assets component utilisation. Each of these fractions has its characteristic properties which individually affect the cost of functioning of the component as a production means. Moreover, these fractions have a specific and sometimes not explicit effect on the creation of assets components value. Vehicles used for transport are a generic group sensible to these factors (especially to some costs fractions). High life cycle costs disqualify such vehicles from operation in transport tasks (Swatler & Falkiewicz, 1989).

Investment costs K_i

The main constituent of these costs is the cost of the vehicle itself. For a new vehicle it is decided by the seller – manufacturer. Until recently it was a standard procedure based on the analysis of costs of materials, components, labour, energy necessary for production, general costs, marketing policy of the company. Once *LCC* evaluation became necessary, the optimisation analysis became indispensable, as early as the stage of vehicle design, i.e. the alternative between more expensive materials and technologies, which increased the mileage between repairs, and cheaper materials and technologies, which increased the maintenance costs but reduced the manufacture costs. At present the process is additionally determined by fast advancement in technology and planned reduction of the durability of machines and vehicle. In each case the vehicle cost should be shaped created with the other vehicle life cycle cost components taken into consideration. The spare parts cost is specified on the basis of experience with other vehicles. The other costs in this group such as workshop equipment and investments in the facilities are negotiated in consultation with the operator. They can be disregarded in the case of similar requirements for the evaluated vehicles of the same intended use and their relatively insignificant scope, or significant use of the existing equipment. The costs of vehicle decommissioning, its scrapping or the costs of neutralisation of operational materials are sometimes taken into account.

Maintenance costs K_o

The main item in this group of costs are the costs of inspections and scheduled and corrective maintenance. The first group is specified on the basis of vehicle inspections and scheduled–preventive maintenance cycle included in the engineering design phase. It is developed by way of the analysis of adopted construction solutions referred to the data obtained in vehicles operation. The expenses on materials, spare parts or maintenance labour consumption are evaluated in a similar way. In the case of completely new design the results of trial operation of the vehicle or its subassembly. Maintainability can be estimated by simulation operation on the prototype model.

What is relatively most difficult to estimate is the cost of corrective maintenance. In the case of vehicles of new design it is necessary to confirm the assumptions by collecting data on unavailability over a longer period of operation. As the operation practice shows, unavailability level stabilisation (with correct vehicle design and technology) is reached after ca. two to three years. Only then is it possible to assess whether the vehicle reliability assumptions conform to reality.

Operation costs K_u

The basis cost in this group is the cost of energy used for transport purposes. To specify it, it is necessary for the buyer to present the vehicle operation conditions. To do this establish operation routes or lines (scheduled speeds, stopping frequency, expected load) should be specified.

Energy expenses on heating, ventilation or air conditioning are also interesting. This estimate is based on averaged climatic conditions of vehicle use.

Energy expenses on both aims mentioned above can be defined with sufficient accuracy by computer simulation. Their practical verification during prototypes testing is not excessively difficult, either.

4. Conclusion

The synthesis of company's assets components value confirms the argument of inseparable heavy interdependence between the value and reliability of technical means of production. Investment decisions on the acquisition of modern vehicles must be preceded by the technical research of the market offer and an analysis of all the costs of transport vehicles. The vehicle purchase price is merely an initial value of the assets acquired. The component acquires the real value from the benefits derived from its operation. To be able to obtain economic profits on the basis of *LCC* estimation it is necessary to use an adequate model that in the costs estimation represents faithfully vehicle technical parameters such as, for instance, reliability, availability, maintainability, safety (RAMS). The model is used as a tool so it must present digital data and facts in their interdependence to enable taking strategies that decide of investments in the acquisition of new vehicles and their value for the company, determined by the quality of transport tasks performed.

Reliability of calculations and employment of *LCC* results depends decisively on the specification of the calculation basic model and adoption of its main parameters such as costs of energy, labour, vehicle use mode. Only then will *LCC* results be comparable for various acquisition variants, and then the estimation of the value of the acquired vehicle will be possible. The practical verification of the employment of vehicle life cycle cost is an important problem. Taking the decision of buying a new vehicle and next during the vehicle operation the transport enterprise verifies whether the *LCC* data given by the tenderer were reliable. The verification procedure covers primarily the trial operation, if it is feasible.

It should be highlighted that vehicle life cycle components may reveal certain dynamics over the subsequent years of operation (labour, materials, energy). To make necessary comparisons possible a theoretical model on which life cycle costing is based should be presented to enable recalculations in real time.

Bibliography

1. Borowiecki, R., Czaja, J., & Jaki, A. (1997). *Strategia gospodarowania kapitałem w przedsiębiorstwie. Zagadnienia wybrane*. Warszawa-Kraków: TNOiK.
2. Borowiecki, R., Kaczmarek, J., Magiera, J., & Młynarski, S. (2004). *Eksploracja taboru szynowego komunikacji miejskiej. Niezawodność, Jakość, Ekonomika*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
3. Byrski, B., & Luchter, E. (1972). Produktynność środków trwałych w przemyśle a decyzje inwestycyjne. *Working Papers WSE w Krakowie*, 50, 22-24.
4. Ciesielski, M., & Sudrowicz, A. (1993). *Ekonomika transportu*. Poznań: Wydawnictwo Akademii Ekonomicznej w Poznaniu.
5. Copeland, T., Koller, T., & Murrin, J. (1997). *Wycena: Mierzenie i kształtowanie wartości firmy*. Warszawa: WIG-Press.
6. Czarnek, J. (1982). *Rachunek efektywności inwestycji i postępu technicznego w przemyśle*. Warszawa: PWE.
7. Janasz, W. (1991). *Gospodarowanie majątkiem trwałym w przedsiębiorstwie*. Szczecin: Wydawnictwo Uniwersytetu w Szczecinie.

8. Kaczmarek, J., & Młynarski, S. (2006). Uwarunkowania niezawodnościowe i organizacyjne w gospodarowaniu majątkiem trwałym. *Working Papers – Wydział Zarządzania Uniwersytetu Gdańskiego*, 2, 259-274.
9. Kaczmarek, J., & Młynarski, S. (2012). The Rationality and Optimisation of Use of Assets – Active Assurance of Safety and Reliability. [in:] J. Kaczmarek & T. Rojek (Eds.), *Dilemmas of the Contemporary Economy Facing Global Changes*. Cracow: Foundation of Cracow University of Economics.
10. Magiera, J., & Młynarski, S. (2003). *Prognozowanie niezawodności w aspekcie planowania części zamiennych w eksploatacji pojazdów*. XXXI Szkoła Zimowa Niezawodności. Szczyrk: KBM PAN.
11. Magiera, J., & Piec, P. (1994). *Ocena zużycia i niezawodności pojazdów szynowych*. Wrocław-Warszawa-Kraków: Zakład Narodowy im. Ossolińskich.
12. Marcinek, K. (1996). *Finansowa ocena przedsięwzięć inwestycyjnych przedsiębiorstw*. Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.
13. Młynarski, S., & Kaczmarek, J. (2009). The Management of Durability and Reliability of the Means of Production in Companies. [in:] R. Borowiecki & A. Jaki (Eds.), *Global and Regional Challenges for the 21st Century Economics*. Cracow: Foundation of Cracow University of Economics.
14. Młynarski, S., & Kaczmarek, J. (2015). Efektywność funkcjonowania przedsiębiorstw transportu towarów w ujęciu przyczynowej analizy kreowania wartości. *Logistyka*, 4, 4954-4071.
15. Oprędkiewicz, J. (Ed.). (1995). *Zużycie i niezawodność*. Kraków: CPPGSMiE PAN.
16. Siudak, M. (2001). *Zarządzanie wartością przedsiębiorstwa*. Warszawa: Wydawnictwo Politechniki Warszawskiej.
17. Strauß, P. (1999). Das modulare 4-Phasen-Modell für Life-Cycle-Cost der Deutschen Bahn. *Der Eisenbahningenieur*, 11, 8-11.
18. Swatler, L., & Falkiewicz, R. (1989). *Finanse przedsiębiorstw transportowych*. Warszawa: Wydawnictwa Komunikacji i Łączności.

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