



PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON MANAGEMENT OF HUMAN RESOURCES 2012

MANAGEMENT - LEADERSHIP - STRATEGY - COMPETITIVENESS



VOLUME I

Gödöllő, Hungary
14-15th June 2012

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of the

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MANAGEMENT – LEADERSHIP – STRATEGY – COMPETITIVENESS

Volume I

**Szent István University, Gödöllő, Hungary
14-15th June 2012**

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INTERNATIONAL CONFERENCE ON MANAGEMENT OF HUMAN RESOURCES 2012

MANAGEMENT – LEADERSHIP – STRATEGY – COMPETITIVENESS

**Szent István University, Gödöllő,
14-15th June 2012**

organized by

**Szent István University, Gödöllő, Hungary
Faculty of Economics and Social Sciences**

in cooperation with

**Częstochowa University Of Technology, Poland
Management Faculty, Sociology and Psychology of Management Department**

and the

**Slovak University of Agriculture in Nitra, Slovakia
Faculty of Economics and Management**

The aim of the Conference is to bring together scientists, researchers, students as well as the representatives of the business sector to exchange and share their experiences and research results about all aspects of Human Resource Management and other management issues. An additional goal of the conference is to provide a place for academicians and professionals with multi-disciplinary interests related to organization, business and management issues.

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- the role of Human Resource in the efficient operation of companies and improving the competitiveness of companies;
- the motivation of Human Resource; measuring methods of the performance of Human Resource;
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- leadership and corporate governance;
- change management, knowledge management;
- management and evolution process of SMEs.

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PREFACE

The International Conference on Management of Human Resources 2012 „Management – Leadership – Strategy – Competitiveness” is organized by the Institute of Business & Organizational Management of the Faculty of Economics and Social Sciences of Szent István University, Gödöllő, Hungary in cooperation with the Management Faculty of Częstochowa University of Technology, Poland and the Faculty of Economics and Management of the Slovak University of Agriculture in Nitra, Slovakia.

The main objective of the conference is to ensure broadening the connections of researchers of the topic and to widen research fields to other management issues, and to discuss the results and ideas of colleagues at different management fields, such as human resource management; business strategies and planning; leadership and corporate governance; change management, knowledge management; management and evolution process of SMEs.

The topic of the conference focuses on the SME sector and wishes to explore the specific problems of this sector in the Visegrad countries.

We wish to give opportunity for researchers, students and professionals to share their experiences and research results and to discuss how to put them into practice.

I hope that our conference will be successful and you all will enjoy your stay in Gödöllő.

Gödöllő, 13rd June, 2012

Prof. Dr. Csaba Bálint ILLÉS

Co-Chair of the Scientific Committee
Head of Institute of Business & Organizational Management
Faculty of Economics and Social Sciences
Szent István University, Gödöllő, Hungary

PLENARY SESSION

LOCAL PUBLIC MANAGEMENT IN THE MODEL OF MULTI-LEVEL GOVERNANCE: CHALLENGES AND OPPORTUNITIES

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Summary: The presented article is dedicated to the role of local public management in the model of multi-level governance. The problem of local public government in the multi-level governance (MLG) model is of particular importance, especially, in the light of current collapse of the Cohesion Policy in the European Union (EU). This policy has been very important for regional development in the recently acceded member states of the European Community, and particularly significant for countries in Central and Eastern Europe. The article presents the essence of MLG-level governance as a tool of modern management in a diverse EU. The place and role of local government in the model of MLG will be predominantly emphasized. Another important issue for the Public Management in the MLG model in the context of diverse EU is the process of making decisions, and taking over some functions of the national state by other actors, such as local authorities or non-governmental organizations (NGOs). MLG development seems to be particularly important for European integration and its economic and social cohesion in the current crisis of community policy.

Keywords: multi-level governance, local public management, cohesion policy

1. INTRODUCTION

The reactivation of the local government in Poland in 1990 was followed by establishing the municipality as the basic unit of administrative and territorial division of the country. Thus, territorial authorities have been separated from the central government. This change resulted in the decentralization of power and an awakening of civic attitudes of local communities. People could take responsibility for the fate of their local homelands and local government as a basic unit of state power could fulfill public tasks by having its own property (assets), the budget and its own administration (Wojciechowicz, 2003: 7).

Local government is an organization - this obvious claim raises a number of important implications. The most important one is the need for recognition of its operations from the perspective of management. With regard to this aspect of a local government one can encounter two different terms: „local government self-management” and „local government management.” The literature presents the first term more often, but it seems more appropriate to use the term „local government management.” A reason for this is that the local government as an organization is in the process of management, while the concept of “government self-management” may suggest that the local government manages various processes, but the local government itself is not a subject to management, what seems contrary to the superficial perspective of the complex, social, legal and political reality.

Present changes in the public management lead towards a model called the New Public Management (Zawicki, 2002) the management of public administration is slowly transforming from a bureaucratic system (mainly based on procedures) towards the efficient system open to the effective realization of objectives.

¹ The term 'governance' is also present in the scientific literature (M. Zawicki, 2002).

This transformation is partly influenced by a gradual impact of market mechanisms on the functioning of a public administration and an increase in need for local communities' participation in making decisions in local government, not only during the elections of local authorities, but also during the performance of its statutory duties. Hence the growing interest in public consultation, research on social preferences and deliberations used as tools of ongoing monitoring of local authorities activities by the local community.

The concept of new public management brings the public sphere management closer to the model of entrepreneurial management (Zalewski, 2007: 26). This involves primarily the focus on goals rather than procedures (as is the case of classical bureaucracy), and cooperation with other private and non-governmental entities while treating citizens as customers. It should be added that relationships between government entities and the clients are of polycentric and not hierarchical nature, which form a network with all its consequences. For example, the system deals with regulation rather than redistribution (Szczerski, 2005: 11).

2. THE NOTION OF MULTI-LEVEL GOVERNANCE

This specific issue of a new public management is an integral part of MLG model and it is becoming one of the most important tools of administration management. It has its beginnings in the community policy of the EU that involves a decentralization of power. It functions in not only the hierarchical structures of power but also in a vertically-oriented network of various public entities that have a significant impact on making administrative decisions and governance at various levels.

Multi-level Government is a different term to describe this type of operation of administration. In Multi-level Government, management at various levels functions according to different rules and with the participation of different actors (entities), both public and private. This model refers to supranational, national, and local authorities (Szczerski, 2005: 10-11). The complexity of the organization (EU), the pace and depth of its transformations and the pervasiveness of the crisis, which has become a commonplace instead of an incidental phenomenon, make the network structures play a greater role than the hierarchical structures and their functioning principles are increasingly based on a multi-valued logic. In these conditions operations of authorities and social entities are subject to a permanent process of metaregulation, self-regulation and reflection (Staniszki, 2009: 32-33).

Tensions arising in this way, conflicts and even crises - including the identity crisis - make the management of these structures require new methods that significantly differ from the classical, Weber principles of bureaucracy operation. The fluency and openness of the processes taking place in present EU create not only risks but also, above all, opportunities to develop new methods of management in the public sphere, based on the analysis of a substance of social and institutional changes, including the ontological aspect rather than ideology. Although the concept of MLG was mainly used for the analysis of governance at the macro-institutional level (EU and the management of state) and, so far, it has been less related to the regional and local government sphere, it seems, that the unprecedented sequence of institutional complexity caused by European integration makes them particularly suitable to describe and explain the actions of social, political and administrative entities in this particular area (Szczerski, 2005 9).

The term of multilevel governance refers to the complex system of activities that are taken both within individual countries and internationally, that can be referred to as a policy

management (governance).² „Policy management is the central matter (essence) for the EU’s functioning, which on one hand truly differentiates this political system from nation-state systems (where the internal balance attainment by the state through the establishment of a political order and social peace are based on a well-defined catalogue of common social values and on redistribution mechanisms), and on the other hand, allows for a definition of the community system as a governance system governed by supranational regulations and institutionalised interest bargaining” (Szczerki, 2005: 74).

Therefore the main problem of policy management in the EU is a combination of internal regulations of each member state with union mechanisms that have transnational dimension. In this context, the meaning of the term ‘politics’ changes from its traditional aspect, where it is primarily understood as an organized set of actions taken for the common good and based on a system of values regulating the achievement of complex objectives (as in the national policy) towards a system which regulates itself, to maintain an external political structure in a relative equilibrium to member states. A key objective in this context is to develop a decision-making model, which takes into account fundamental interests of individual states on one hand, and on the other hand, allows the system integration of the EU as a political community.

The term ‘multilevel governance’ in this paper will refer to the role of local authorities (government) in decision-making process at the EU level and to internal management models within the same government, because the rules of governance at the macro level must be relevant to the micro level. One can already point out many forms of convergence in a local government practice of multilevel governance, as indicated by the increasing role of public consultations and NGOs in the policy of Polish local public management. In conclusion, Kojło, Leszno and Lipski (2009: 7) state that „multilevel governance system can be incorporated into the great innovations of European governance, i.e. in European cohesion policy, which allows to reconcile the agreed priorities of high-level European governance with local, specific circumstances.”

3. THEORIES OF MULTI-LEVEL GOVERNANCE

The starting point for the analysis of MLG is the concept of „governance”, which in its essence has much more to do with management than with the „regulation” that is characteristic for traditional administration. It can be defined as a self-organizing network, functioning at the intergovernmental level - in the sense of national and local governments. Andy Smith (2007: 337) describes this network with the following words:

1. Interdependence between organizations. Governance is broader than government, covering non-state actors, changing the boundaries of the state [means] the boundaries between public, private and voluntary sectors become shifting and opaque.
2. Continuing interaction between network members, caused by the need to exchange resources and negotiate shared purposes.
3. Game-like interactions, rooted in trust and regulated by roles of the game negotiated and agreed by network participants.
4. A significant degree of autonomy from state. Networks are not accountable to the state; they are self-organizing. Although the state does not occupy a privilege, sovereign position, it can indirectly and imperfectly steer networks.

² The term „multilevel governance” in this article will refer to the activities of the European Union. This type of governance is also used in other regions of the world, i.e. in the U.S. (Mitchell-Weaver, Miller and Deal Jr, 2000: 851–876) and in Canada (Benz, 2010). The MLG is also presented in global terms (de Prado, 2007).

A key issue in the meaning of the term „governance” is the network, a set of various entities connected by common goals and exchanging key resources - especially knowledge (Słocińska, 2010) - according to the negotiated rules. One can claim that the EU is a system of continuous negotiation between governments at different levels - supranational, national, regional and local levels (Hassel, 2010: 160). Trust is the key issue in addition to permanent negotiations. Without trust, the exchange between entities in the network may be unequal, which in turn, can lead to disturbances in proper functioning.

It should be emphasized that such an exchange does not occur without conflicts, and negotiating the terms of the exchange in the network plays a key role in maintaining a balance.³ Mediations between social actors perform a similar function (Smith, 2007: 384). The mediating role may be held by governing institutions at different levels, i.e. local governments. Management of common relations between various entities becomes a key process in this situation: government, NGOs and private entities. Developing goals and means to implement plans that lead to their achievement become the main challenge to local governments in the current phase of development of representative democracy, both at national and European level (Nitkiewicz, 2005). Preventing, resolving and managing the conflicts arising in this area are one of the major functions of a local government. The complexity of conflicts in the MLG model requires the use of advanced methods of conflict managing and solving (Mayer, 2010).

4. LOCAL GOVERNMENT IN A MULTI-LEVEL GOVERNANCE MODEL

Reflections on the role of local government in the MLG model should start from the statement by Hooghe and Marks: „Multi-level governance is both an international and a domestic phenomenon”. (2001: 78) The task of local government in the control and coordination of actions in a complex system of structural, institutional and economic relationships in the EU at the current state of the network society is invaluable. The local government has, in fact, adequate means and resources to initiate the formation of such networks, as well as to support the exchange of knowledge between them.⁴ What is particularly important, the local government has the ability to act on such policy both at the national and international level. Support of already operating networks in contact with similar networks functioning within the EU can bring measurable results for regional development (Bauer and Borzel, 2010; Fekete Farkas, Tompe, Villanyi and Toth Naar, 2011). These multileveled actions may support local initiatives by providing adequate infrastructure and using relevant government agencies for this purpose. Local authorities’ communication with these agencies is less difficult to accomplish than within any newly formed associations or foundations. Such actions may be taken at the local, national and international levels. „Within this multilevel system, the objective is to let the regional government undertake a coordination role among the EU, national government and local bodies in a participatory governance process.” (Gherardi and Facc, 2007: 102) The role of local government should be particularly emphasized in initiating and coordinating the cooperation between different social actors at the international level, what is important in shaping the cohesion policy (Olbrycht, 2007: 81 – 92).

The new management model, where governance is gaining advantage over the government and the traditional division of the internal and external state functions is blurred, as exemplified by the growing role of NGOs in international relations. The local government has to find its place in this new institutional order. The state becomes the subject of operations

³ More about the subject at: J. Hejdtman (2002: 7 – 42).

⁴ Initiatives of local authorities like creating clusters of knowledge and innovation or technology parks are typical examples of this such activity (Czarnecka, Słocińska and Wrona, 2011).

according to the principle of 'primus inter pares' in the complex network of interactions most of which have the negotiating aspect. This diffusion of authority makes it difficult for the state authorities to control all interactions between social actors (including interactions in a European dimension). They can only monitor them. A good example of this situation can be the fact that in Brussels there are 150 independent agencies of subnational governments and transnational networks created by these governments, i.e. Assembly of European Regions, the Council of European Municipalities and Regions, the Associations of European Frontier Regions, etc. (Hooghe and Marks, 2001: 86 - 88)

Multilevel governance is particularly important for the cohesion policy. European integration is based on this process, which cannot exist only at the national governments' level. It will be difficult to realize this is one of the most important principles guiding the EU policy without the active participation of various actors at the local levels. „Thus, the national parliaments through the Lisbon Treaty have gained the right to review initiatives undertaken by the European Commission, they are also required to consult on this issue with the government at regional and local level.” (Hubner: 27).

In the field of international relations, powers of local authorities grew through the structural funds, which fuelled EU regional policy in a significant way. It aims to support regional identity, which in turns is intended to foster European integration.

5. CONCLUSIONS

Understanding of a Multi-level Governance adopted in this argumentation (Bache, 2012: 628 - 641) means complex interactions between political authorities at different territorial levels and between different actors: public, private and NGOs, where a complex decision-making mechanism within the framework of current policies emerges as the result. The essence of MGL is a synchronized operation of many authority centres with complementary and overlapping competencies and operating at various territorial levels (local authorities - regions - countries - the EU). Thus, the role of local government under this concept immensely increases. It should be emphasized that it does not have to interfere with the powers of the nation state and its sovereignty and the auction of interest between various levels of power does not have to be a zero-sum game (Szczerki, 2003: 14 – 15).

Local governments are more autonomous in this context, and the need to plan, coordinate, control, and above all, making decisions in a diverse network of relationships and interactions within the EU Community policy, require them to adopt a new, more flexible management model.

In this regard, strategy for local government should be based on several principles⁵:

1. The ability to formulate objectives
2. The ability to realize objectives
3. Securing the policy

The ability of the formulating the objectives, in other words, formulating the local government policy consists of knowledge acquisition and analysis of the situation. In order to do that, so called „think-tanks” are needed. „Multilevel governance of knowledge and information” based on good communication between local government institutions, the central government and EU institutions are also necessary. It is extremely important to know

⁵ Szczerki applies these rules primarily to the state, however they can be adopted by local government as well. (Szczerki, 2011).

one's own human and infrastructure resources. The realization of objectives is about „the rate of pulse production and its transformation into action of various structures” which is inter alia a function of the efficiency of administration. A skilful leveraging of the European institutions and the people working in EU Parliament (such as the deputies) is important to implement the policy. Protection of policy is based on the early detection of various threats to its implementation.

Functions of local government in a MGL grow enormously in relation to the so-called „state centric” model that assumes strict separation of state power bodies from the structures of local government and civic institutions such as NGOs. In current situation such model is untenable. This does not mean that (as the supporters of the EU as a superstate) the role of the nation state is past, it just changes functions that treat about the equality of state structures and other structures of public life.

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DEVELOPMENT OF BUSINESS STRATEGIES

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Summary: The classical management approach focused on the increase of productivity which even at that time could not had been realized without setting objectives and elaborating plans. In Taylor's era, however, analyses were primarily focused on solving internal problems of the organizations; structure design, organization, performance evaluation and control had become the focus of attention. In general, short-term, operative goals had been set and the implementation of them had been tried to be achieved.

The term "strategy" came much later into the focus of attention, only in the 1950s. After recognizing the importance of *strategic planning*, *strategic management* has become the most important concept and tool of the corporate governance under competitive conditions. The theory and methods of strategic management have been greatly evolved over the past decades and now strategic management can be considered as the starting point of several new disciplines. But the views on strategies have been also changed: new theories have been developed for the systematization and for their implementation.

The presentation discusses the main stages and approaches of the strategic thinking. It deals with the divergences and branching of the strategic management and the professional areas starting thereof. Finally, it attempts to form groups of the existing strategy development approaches.

Keywords: strategy, strategic management, competitive strategies, innovation, abduction

1. INTRODUCTION

The word strategy is of Greece origin; it is connected with strategics, but in the Ancient China Sun Tzu was also engaged in the art of military leadership⁶. Strategy uses military actions and operations to achieve victory. What Von Clausewitz⁷ meant by strategy was „using battles in order to win the war”; i.e. the goal was to reach a long-term success.

The term strategy was rooted in the field of economic sciences through the *game theory*, where “planning of series of defined game-actions are meant by strategy, where each action is formed depending on the possible own actions and the expecting contra-actions” (Chandler, 1962). On the basis of this corporate economics took over the term strategy and it was used in the American universities at first (Chandler, 1962, Ansoff, 1965). The strategic approach has developed one of the most important management functions, the *planning*.

The main task of the corporate governance is to set up future plans and to make decisions in order to implement them. Conscious shaping of the future can be made through elaborating *plans* and implementing them. Analysing the development of planning approaches, Ackoff (1974) mentions three more basic approaches.

⁶ Sun Tzu: The Art of the War. Original: 500 B.C. Translated by S.B. Griffith. Oxford University Press, New York, 1963.


⁷ Von Clausewitz, C.: On War (translated by M. Howard and P. Paret), Princeton University Press, 1976.

The *satisfactory planning approach* means the effort to achieve something better than the existing. At the beginning only this approach could be successful, because satisfactory economic models and information processing technologies were unavailable. The *optimization approach* may have spread in the period after the Second World War, when operation research models and methods for military purposes as well as computer technology became available also for civil users. Its characteristic is the effort to reach the possible best (e.g. fixing the maximum income) which can be realized most easily in static situations. Economic systems, however, can be described only with complex, dynamic models; therefore optimization has only limited possibilities in the planning. The other problem is the continuous changes, modifications in the economic environment that constantly creates new situations for the planning. As a result, the *adaptive approach* has developed, which means the answer to environmental challenges. Compared to the previous planning approaches it is a significant difference that the goal in the adaptive approach is not only one suitable *plan* but to create a *planning system* capable to response. As the environmental forces (e.g. weather, market price, legislation, etc.) cannot be influenced, the passive response was considered to be possible by the adaptive approach at first, but later the active response was also thought to be more and more possible (e.g. victory over the competitors, influence on politicians, etc.). Ackoff's opinion is only one step away from the *strategic approach*: strategy is nothing more than adaptation taking into consideration the expecting actions of the competitors.

2. DEVELOPMENT OF MANAGEMENT CONCEPTS

On the basis of similar thoughts Ansoff (1965) worked out his system about the development of management concepts and on this basis he got to the emergence of the strategic management.

Table 1: Development of management approaches and systems

Years	1900	1925	1950	1975	2000
The future	recognizable	extrapolable	recognizable discontinuity		novel discontinuity
State of the environment	stable	reactive	anticipative		creative
Management approaches	Planning and control, extrapolation		Opportunities and risks, anticipation	Weak signals, flexible answers	surprises, evolution
Management systems: 	rules, prescriptions, plans financial control, budgeting, MbO		Long term planning Strategic planning Strategic management Strategic and Change management		

Source: Ansoff (1965), modified

The opinions about the predictability of the future and the understanding of the environment have significantly changed for the emergence of management sciences and more and more new management concepts have arisen in the course of time. As Table 1 shows, at the beginning the future was assumed to be recognizable, respectively it can be predicted on the basis of the past events. Then certain patterns were believed to be discovered in the events and recognizable discontinuity was mentioned. Later more and more new and unexpected changes were discovered in discontinuity, therefore it was stated that unprecedented events, changes also had an influence on the processes. Accordingly the condition of the environment was characterized with supposing stability first, then with predictable changes and finally with unpredictable turns. Accordingly, the management concepts have developed further from focusing on (short-term) planning and control to methods, concepts capable of responding to unexpected events. In addition, the orientation of the management approach can also be observed: at first, the efforts of the management were directed inwards (inward the company) but later the attention was increasingly fixed on the external environment, respectively the competitors. In this complex development process first the long-term then the strategic planning has evolved, which finally led to the creation of the science of *strategic management* as a general leading concept and the *change management* capable to react to sudden changes, as well as *crises management*.

Beside the views on the environment and the future the management science has also changed a lot in the field of human relations and the dialogue with the society. According to Taylor (1911) the task of a manager was to organize work processes optimally and to increase productivity, but the *behaviourist school* has developed soon and it considered the utilization of human capabilities, the development of leadership skills and conflict solving to be the most important issues of organization science focusing on human relations. These views have spread in the same way in the field of the strategic management. At first, the classics of strategic management considered three issues to belong to the topics of the strategic management: evolving of *strategies, structures and systems*. But Waterman, Peters and Phillips (1988) mention seven factors as the criterion of a successful strategy in their 7S model⁸: over the previous three areas, the importance of *skills, style, staff* and *subordinate goals* is emphasized as well. Beside the *hard* elements of the strategic management, *soft* aspects (i.e. human aspects) have been put into the science of the strategic management.

The views on the society, more precisely the views in connection with the social responsibility of the companies have been significantly improved. In the 1920s Henry Ford said the following: “What is good for business is good for society. Service comes first, but it means increased productivity and profit.” But in the 1960s Henry Ford II revised his predecessor’s concept: “Corporations should help solve major social problems, such as helping disadvantaged minorities and preventing environmental damage.” In the 1980s the Business Roundtable drew up the rule which is still valid in our days: “The long-term viability of the corporation depends upon its responsibility to society” (Montanari, 1990). Later this approach became general, it became business practice and even more some people forged business benefits by making social responsibility (abbreviated as *CSR*) to be a marketing strategy.

3. BRANCHES OF STRATEGIC MANAGEMENT

At the beginning the process of strategic management was considered to be realized in the execution of 3 tasks. The suitable strategy has to be chosen on the basis of a wide strategic analysis and one has to work on its implementation (*strategic analysis, choice and strategy*

⁸ Later this became known in literature as McKinsey 7S Framework.

implementation, Ansoff, 1965). Later the tasks were different and both on the company and business unit level the following steps were differentiated: the determination of vision, mission and objectives, inside and outside analysis, tests, the definition of the strategy, detailed elaboration of the strategy (strategic programming), realization of the annual planning and performing strategic management control (Hax and Majluf, 1991). These steps are repeated again and again, because the strategic management can define the paths and tasks to be followed in the future on the basis of the existing experience and the reaction to the changes in the outside environment.

The progress of the elaboration and implementation of the strategy has enriched with new methods and approaches in the course of time. For example, the determination of the vision, mission and objectives is considered by Hungenberg (2008) to be not a strategic, but a *normative management* task, since the vision of big corporations are determined as a normative for the corporation by the owners outside. He thinks that the determination of corporate constitution and the influence on corporate culture also belong to the normative management. The issue of the corporations' social responsibility (CSR), which is also analysed as an independent topic, is part of this branch, as well.

Similarly to CSR, more and more independent branches have diverged from the strategic management which drew the attention of other scientific fields or inversely, the strategic management uses principles and methods developed by other sciences. Only some of the more important ones are mentioned in this study.

As a result of the researches on *organizational culture*, the issues of corporate culture became part of the strategic management (Handy, 1985). *Scenario writing* (Schoemaker, 1995) and *benchmarking*, i.e. the method of comparison with the best practice are mentioned among the methods of environmental studies. Beside the methods based on SWOT-analysis, *creative techniques* (such as brainstorming, synectic, heuristic methods, error prevention analysis and so on) are more frequently used to elaborate the strategy. Performance objectives are appointed in the phase of strategic programming, where beside the financial goals other important strategic objectives are determined on the suggestions of the *Balanced Scorecard* (BSC). The BSC has become the tool of not only the appointment of objectives, but also the control of implementation (Kaplan and Norton, 1996). In connection with the changes of views on the predictability of changes in the environment (Table 1), *change management* has developed, which is capable to give adequate answers in the organization to the unexpected and therefore usually unforeseen in strategic planning changes in the environment. The increase of the importance of *knowledge management* is also related to this, because the appropriate adaptation is impossible without the adequate knowledge in the rapidly changing environment. In an early phase of the development, *reengineering*, i.e. the total reorganization of the corporations also became an important field, however, due to its harsh methods (radical reorganization, termination of activity, dismissal etc.), its importance is less emphasized today and other methods (lean management, outsourcing, etc) have replaced it. As quality has become an important competitive factor, quality-oriented organizational methods and strategies have also spread about and total quality management (TQM) has become the most famous one.

It is particularly worth to analyse the issues of *strategic management control*. The control was always considered to be one of the important basic functions of the management that is why it was integrated into the management system at the development of the strategic management. The most important role of the control is the comparison of the plans and the facts, which can be the base of the continuous correction of the strategies and the determination of the adequate answers to the changes in the environment.

Parallel with the development of the strategic management, another approach called *controlling* has been developing. Following Horvath's work (1979) a management system based on a "plan and fact" comparison and focused on the last phase of the management process has been developed. Controlling practitioners recognized soon that plans, especially strategic plans are needed for the plan-fact comparison, thus a process determined by the strategic management concept was built upwards from below, too. Consequently, the strategic management and the controlling examine the same issue with partly different focuses and analysis methods.

4. THE DEVELOPMENT OF STRATEGIC CLASSIFYING

In the relatively early phase of the development of the strategic planning it was attempted to determine and classify the different strategic types. For example, according to the stages of the appearance, Mintzberg (1988) differentiated intended, deliberate, emerging and realized strategies. It was also typical in this period to differentiate according to the fields and functions (e. g. market strategies, production increasing strategies, R+D, marketing strategies, organizational development strategies, etc.)

The first methodisation whose base was the logic of the main elements of the strategy can be related to Ansoff (1965). Ansoff emphasized two dimensions: the dimensions of the product and the market, on the basis of the development dimensions of which he classified (existing or new products or markets). In case of the existing products and markets, Ansoff considers the strategies of market withdrawal, consolidation and a stronger market penetration to be possible beside the suggestion "do nothing"; while in the other cases he suggests paths of growth (market development, product development and diversification). Almost the same possibilities are drawn up in the so-called expansion (growth) strategies, which also contain the approaches of the vertical integration. The common principal basis of the expansion strategies is that each corporation focuses on the increase of the corporate value, although this objective cannot always be realized, because of the limited resources and buyer's markets.

The path of growth can also be the diversification which is called the case of "new products, new markets" by Ansoff. Diversification, however, can also be realized so that the company achieves larger sizes, increasing corporate value with the acquisition of existing products and markets. The following figure shows the diversification strategies according to the number of products (markets) and the level of relation (conformity) among the branches of strategy. Accordingly, Hungenberg distinguishes focused, horizontal and vertical diversification, resp. conglomerates.

Taking into consideration the approach that the strategy is the means of corporate governance under competitive circumstances Porter (1989) suggests the methodisation on the basis of *competitive advantages*. At first, Porter thought that the lower price and so the lower expenses or the useful features of the products, i.e. the distinction could be the main competitive advantage and he determined the main (generic) strategies on the same basis. Later he enlarged this approach with a new dimension, with the expansivity of the competition area, on the basis of which he distinguished wider, or focus strategies. In Porter's opinion, strategies are worth to be developed by these dimensions, as the combination of the generic strategies leads to less effective solutions.

Later this approach was disproved by the results of the corporate practice, which also led to success in case of the so-called "hybrid" strategies. For example, SWACH watch, which was made on the image of the Swiss watch and was available at a relatively low price in the 1980s. It has been proved that it is also possible to gain advantages in this way and it is called the "best cost provider strategy" and refers to a service or product of good quality at a reasonable

price. In certain cases, this advantage means that the buyer can save more money with the product than in other cases.

Beside the winners, losers are also supposed by the competitive strategies and market participants actively attack or in certain cases they are compelled to be defensive. This fact has led to the distinction of offensive and defensive strategies. Military terminology is used to describe the offensive behaviour (overrun attack, wing attack, face-to-face fight, guerrilla operations etc.) just as in the case of defence (preventive attack, block behaviour, leaking out of threatening information etc.).

However, the classification according to the offensive and defensive strategies doesn't contradict the competitive strategic concept, but complements it. In case of any strategy, an introduction, a construction stage, a longer utilization stage and an erosive stage can be distinguished. The construction stage can usually be characterized with offensive operations and the growth of competitive advantages. However, from the beginning of the utilization stage the attacks of competitors, which can be more and more intensive have to be taken into consideration. In the erosive stage, the defence is typical as this time the competitors can significantly decrease the advantages with their attacks.

Kim and Mauborgne's (2004) approach seems to contradict the principle of competitive strategies which has become known as "*blue ocean strategies*". The authors indicate in the subtitle of their book: How can an undiscovered market place be created, making the competition unimportant? The authors distinguish *red ocean* strategies, i.e. the traditional competitive strategic actions from the *blue ocean* strategies. The name of red ocean refers to the markets full of bloodthirsty sharks.

In fact, the idea seems really new, although, *pioneers* or those who first introduced innovative products into the market are much earlier mentioned in the literature of the strategic management. Pioneers can achieve significant time and price advantages than *followers* or copiers, but their risk can also be much higher. The authors of blue ocean strategy consider the creation of not only new, innovative products, but also the development of new markets to be an important task. In order to achieve long-term success the corporations following this strategy have to be leaders continuously, otherwise they can soon become victims of the attacking competitors.

Today the issue of innovation and innovative corporations is in the focus of attention and people expect the solution for the more and more depressing problems of humanity (energy shortage, climate change, world food problems, health issues, etc.) from this concept.

5. THE LEVELS OF STRATEGIC THINKING

If every company were able to acquire the "standard" knowledge of strategy development and implementation uniformly and perfectly, competitive advantages couldn't be achieved in this way theoretically and only a greater potential (resources, size etc.) would matter. It means that the strategic management as a corporate governance concept can only be successful if its appliers are able to develop further the concept itself, as well. Science also tries to keep up with this demand and works out newer and newer approaches in the field of the strategic management.

Continuous development could be already detected in the previous chapters, although in these cases it is rather a methodological development. But the elaboration of innovative strategies requires approaches and tools different than the previous ones which expands the earlier views on strategic management. Creativity and innovativity become an ability of special

value, for the development of which the achievements of psychology, sociology, knowledge management and other sciences are also needed.

Table 2 shows the new strategic approaches according to the system of Baracscai and Velencei (2011) that are characterized together with the traditional conception by three levels.

Table 2: Levels of strategic thinking

	Orientation	Features	Schools	Means	Consulting assignments
I.	Data orientation	High-tech	Positioning school (Harvard)	Strategic management methods	Analysis and design services
II.	Innovation orientation	High-concept	Learning school	Strategic business models	Business partner
III.	Abductive orientation	High-touch	Art school	Strategic thinking	Strategic partner

Source: Baracscai et al. (2011) modified

Level I, the classic version of the strategic management, means the basis for further development. Its followers professionally explore the company's strengths and weaknesses with the help of the strategic analysis; they find the main driving forces and the basic competences on the basis of which they are able to elaborate the right strategies. Level II can develop and implement fundamentally new solutions with the help of learning ability, association and innovation techniques. Level III can be achieved by those who are able to acquire strategic knowledge at a high level and also gain a remarkable practice in this field and thus they become the "artists" of strategy. The name of abductive orientation means that on the basis of their knowledge and experience the creators of the strategy come to the correct conclusions obviously and almost from their conviction⁹.

6. CONCLUSION

As a summary it can be stated that none of these approaches can lead to the right strategic solutions alone, with absolute certainty: the first level of strategic thinking makes it possible to learn the essential tricks of trade, and the second and third level can be suitable for achieving long-term competitive advantages surpassing the competitors. But these approaches do not offer guarantee against mistakes, failure or collapse. Therefore in order to elaborate the right strategy we need continuous, well-organized work and a professional staff whose members are excellent experts in their field and are well-motivated to increase the corporate value. The same applies to the implementation of the strategy that cannot be successful without the managers' high-level education and commitment. Furthermore it can be supposed on the basis of the development of strategic thinking that further management trends, approaches will emerge that can offer more and more mature and stable theoretical base and practical basis, as well for the successful governance of economic organizations.

⁹ *Abduction*: discovery of explanatory hypothesis; the creative mind is able to come to the correct conclusion ignoring the rules of formal logic. In addition to induction and deduction this is a third problem-solving mode.

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HUMAN RESOURCE MANAGEMENT UNDER CHANGES IN CENTRAL AND EASTERN EUROPEAN COUNTRIES

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Summary: It is important to note that many publications on HRM in and outside the CEE region have studied this important management function rather superficially. Very few research attempts such as Cranet were conducted in the region. It could also be said that this is a single longitudinal HR research in the region. The primary aim of this article is to draw attention to the similarities in the historical background and transitional period of 9 post-socialist CEE countries, making this region a distinctive cluster in Europe in light of the Cranet¹⁰ survey conducted round 2008/2009. The lack of space, here only the importance and location of personnel functions are analyzed.¹¹

Keywords: Human Resource Management, CEE region, socio-environment, national culture and labour environment

1. INTRODUCTION

Before the political changes at the end of the 80s, the HR practice in most Central and Eastern European (CEE) countries was under a very strict state control. Personnel – meaning: HR – issues were closely supervised by the Communist Party and the government. Certainly, there were significant differences among the countries of the region in this respect, but Western like Personnel Management could only be found in traces in these countries under the socialist regimes.

One of the first big challenges the HR departments of transition countries had to face after the fall of the Soviet regime was to cope with the massive layoffs after privatization. According to the research conducted, local managers and HR professionals followed more humane dismissal practices (e.g. offering early pension or retraining) than those coming from the Western world (Koubek and Brewster, 1995 and Elbert and Karoliny, 2005). International companies have redrawn the characteristics of the labour market and the HR practice in the former socialist countries. Empirical research unequivocally confirms that HR has become obviously strategic in CEE subsidiaries at international companies. First time ever in history of Personal Management in CEE region, HR managers were promoted as board members at foreign owned subsidiaries or local big firms as well (Farkas et al., 2008).

The Eastern European transition has created a rather special situation in the development of the HR function, despite the fact that local SMEs, or traditionally managed local large companies, have substantially neglected this activity vital to development of HRM. Nevertheless, a gradual change in the approach to employee management can be particularly observed in the case of the foreign owned local subsidiaries and modern way managed local

¹⁰ Cranet (www.cranet.org) is now the largest HRM network in the world and the only one that has been collecting comparative data on HRM in different countries for more than two decades (www.cranet.org). All authors of this contribution are members of Cranet HR network.

¹¹ This contribution is based on the following research paper: Poór, J., Karoliny, Zs. and Szlávicz, Á. (2011). Transformation of Human Resource Management in Central and Eastern European Region. (unpublished manuscript)

big firms. In his book about the role of international companies in Eastern Europe. Lewis (2005) states that multinational companies have *redrawn* the labour market map of the former socialist countries in many respects. Among other things, they have finished egalitarianism and introduced basic salary system based on the importance of the type of job. Excessively high performances were rewarded with excessively high salaries. Besides technical knowledge, the importance of speaking foreign languages was emphasized.

Therefore, it is considered a milestone in the long-standing collaboration between scholars, which Cranet framework has realized. Within this global HR network many publications have been produced by Eastern and Western colleagues to reveal the colourful transformation that takes places in the field of HR in the CEE region. Last three Cranet surveys (2000, 2004-2005 and 2008-2009) covered six and lately nine countries of CEE region.

There are several ways (e.g. size of the firm, ownership and management approaches etc.) of reviewing the development of human resource management (Brewster et al., 2004). . As a result of internationalization and globalization was created , and one of the characteristic - and most frequently used - methods of illustrating this in Europe describes the development of HRM in relation to the most important *management cultures (American, Asian and European)* (Brewster et al., 2004). We also take this approach throughout the article.

2. GENERAL CHARACTERISTICS OF COUNTRIES EXAMINED

2.1. SOCIO-ECONOMIC DEVELOPMENT

There are many opinions can be found in the literature on the closer history of this region. The outside world was of the opinion that the whole region was similar in the shadow of communism. It is the fact that the Soviet system existed in this region nearly 80 years. The communism was implemented in Russia in 1917. Very simplistically other nations, which HR practices are analyzed in this article met with this system after the Second World War.

After the collapse of the socialist system democracy is similar but separate ways began to build in these countries. These special tours wholly or partly related to the specific endowments of these peoples. Finally, all countries except Russia - sooner or later - an EU member or candidate (Serbia) members became. NATO membership is realized - except for Russia and Serbia - in case of seven countries discussed in this paper.

The EU countries studied, but also Serbia, not to mention Russia, as a result of the rapid progress achieved in 2008 half the EU average regarding GDP per capita.

Not convince to emphasize that the rich and long history of these nations contradict to the eloquent opinion in Western media on homogeneous treatment of the region (Berend, 1996). Recent global economic and financial crisis has drastically impacted all countries in the region. GDP decrease and high unemployment, with the exception of Poland, Slovakia and Romani has been a typical trend in the region.

2.2. CULTURAL CHARACTERISTICS

For some time, the Western public treated and considered the former socialist countries as a homogeneous block. The Czech-Slovak peaceful split, the secession of the Baltic States from the former Soviet Union and last but not least the disintegration of the former Yugoslavia after the Balkan civil wars all show that such an assumption is not appropriate.

In light of the data, the CEE region should not be considered as a culturally homogenous region. Even more, it can be observed as a heterogeneous region, where in some cases cultural co-movements, as well as divergent tendencies can be observed (Jarjabka, 2010).

The findings show similarities between the Bulgarian, and Russian cultures, which are based on the cultural ties of these countries, their geographic proximity and Greek Orthodox religious roots.

The similarities between Estonian and Finnish cultures and the differences between the Estonian and Russian cultures also indicate a relationship to the Scandinavian value system, which replaces the centuries-old assimilation aspirations of the Swedish state.

The Czech and Slovak cultural differences are surprising due to living together in a common state and speaking almost the same language. Hofstede's data (2001) clearly shows that Czech culture is more similar to the German or the Austrian culture rather than Slovak. This cultural co-movement demonstrates that the constituent nations of Yugoslavia created not an imposed and artificial state but rather a relative cultural melting-pot. These examples very well ground that this region is not homogeneous.

2.3. LABOUR ENVIRONMENT

In the years of the socialism, the trade unions (TU) in respective countries played a role in the fulfilment of the Communist parties and state performance goals of the one and five-year plans on national, sectoral and company levels (Alas, 2004). Main activities of trade unions included distribution of welfare benefits, overseeing employee housing, social event organization and provision of catering services (Kazlauskaitė and Buciuniene, 2010). There were many cases where the trade union officials played key roles in the ruling communist parties.

Therefore, the unions were not prepared for the new political and economic situation, which occurred after the fall of regime. Trade union representatives lacked experience in modern industrial employee relations. The majority of workers and employees wanted to escape from the constraints of the union membership and the payment of union membership fees. Therefore, the level of the unionization started eroding in many industries, except for the traditional industries and public sector. The trade union movement was unprepared to be involved effectively into the different forms of privatizations implemented in different countries of the CEE region (Zupan and Kase, 2005).

The position of trade unions was also hampered by the fact that the employee relations (ER) were driven by the company management. For instance, the emergence of high unemployment (15-20%) is explained in the literature as follows: (1) a decline in labour intensive activity; (2) new market demand and inadequate job skills; (3) the unpreparedness and rigidity of the transition countries' labour market (Svejnar, 2002; and Arandarenko, 2004).

In the meantime, especially with the external influences (e.g. European Union, International Monetary Fund, World Bank and International Labour Organization) evolution of labour market institutions began, initially mainly as passive tools (for instances employment protection, new Labour Code, Unemployment Law etc.) and later on as active devices (e.g. Teleworking, part-time employment).

Horowitz (2011) points out that the multinational firms and their local managers in many cases have been overlooked in view of various contextual factors. They underestimated unique characteristics of local labor markets and limited the influence of trade unions.

Later the new forms of ER began to emerge in different CEE countries (Toth, 1997). Today, the nine countries use some kind of a tripartite collective bargaining (employer, employee and government) system.

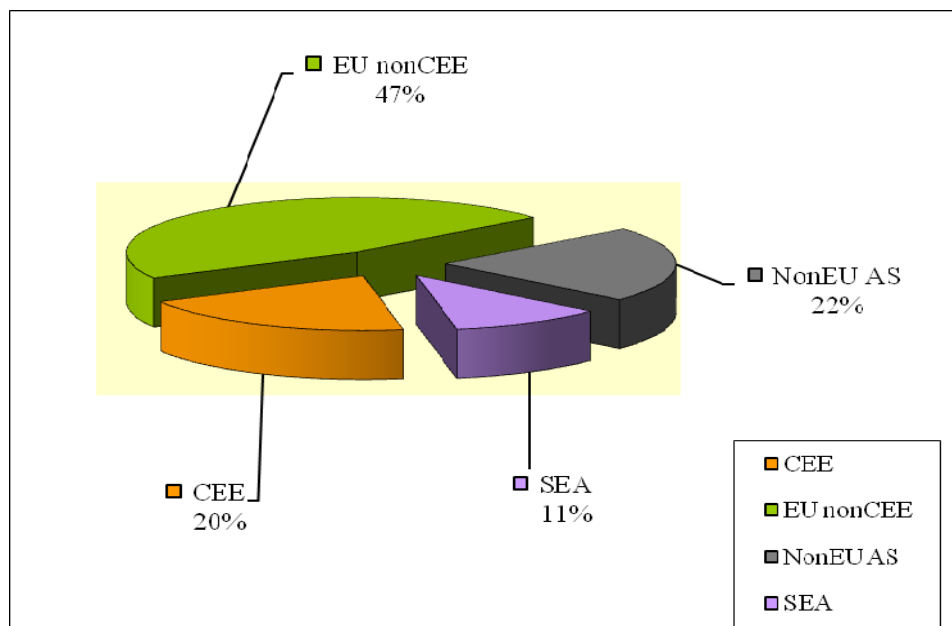
3. RESEARCH QUESTION AND SAMPLE

What follows is a comparison of the characteristic features of the investigated area in the samples of the Cranet 2008/9 survey round. Consequently, our analyses will be based on the information gleaned from the data - comparable due to the uniformity of questionnaires - of organizations from 30 Cranet-network countries of the world .

Figure 1 shows the proportions the 6 039 organizations and institutions from 30 countries, which constitute the total sample, are represented in the analysis.

- *Subsample I. of the CEE countries* in the focus of our investigation represents 9 countries (20% of total sample) (Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Russia, Serbia, Slovakia and Slovenia)
- We classified those 16 European countries – including some others close to the geographical Europe – into our *Western European II. subsample* which are not former socialist countries. These are: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Israel, Norway, Sweden, Switzerland, Turkish Cyprus, and United Kingdom. The total number of organizations in this subsample, called European Non Central and Eastern European (EU nonCE). It represents 47% of the total sample.
- The countries in the *Anglo-Saxon III. subsample* is Australia, South Africa and the USA which represents 22% of the total sample and it is called Non-European Anglo-Saxon (None AS).
- *Asian subsample IV.* contains the answers given by 11% of organizations from the three South-East-Asian (SEA) countries (Japan, Philippines, and Taiwan).

Figure 1: Proportions of the organizations in the four examined management cultures in the 2008/9 Cranet survey



Source: Poór, J., Karoliny, Zs. and Szlávicz, Á. (2011). *Transformation of Human Resource Management in Central and Eastern European Region.* (unpublished manuscript) Gödöllő-Pécs.

The standardized Cranet questionnaire, which served as the basis of our research project, includes seven sections with nearly sixty questions exploring the key HR areas. The section I-VII examining *on* Importance of the HR function, Staffing, Employee development, Compensation and benefit, Employee Relations and Communication. To be able to describe and understand the supposedly varying importance and outcomes of it, the analysis builds on several answers from Section VI. and VII. too, where the questions are designed to obtain information about *the organization* completing the questionnaire.

Our current article focuses on the answers of Section I examining the key items of Importance of the HR function, The research data were processed using SPSS software.

Before we analyze the characteristics of the role and importance of HR function in the five different samples, let us highlight the similarities and differences between the subsets in terms of the main contextual factors – economic activity, size, and ownership – of the responding organizations.

The *sectorial distribution* of the total sample shows almost balanced position between manufacturing and service sectors. While the proportion of service provider companies is dominant (47-52%) in the samples of the EU nonCEE and the NonEU AS countries, the organizations of the CEE and SEA countries are rather representatives of the industry (49-60%). (Table 1.)

Table 1: Sectorial distribution of the samples (%)

Sectors	Samples				
	I. Central-Eastern European	II. European Non-CEE	III. Non-European Anglo-Saxon	IV. South-East Asian	V. All surveyed
Agriculture	4	2	2	0	2
Manufacturing	49	40	28	60	42
Services	38	47	52	17	44
Other	9	11	19	23	12
Total	100	100	100	100	100

Source: Poór, J., Karoliny, Zs. and Szlávicz, Á. (2011). *Transformation of Human Resource Management in Central and Eastern European Region*. (unpublished manuscript) Gödöllő-Pécs.

The composition of the analyzed samples by *organizational size* are summarized in Table 3.

Table 3: Distribution of the samples bt organizational size (number of employees) (%)

Size category (Number of employees)	Samples				
	I. Central-Eastern European	II. European Non- CEE	III. Non-European Anglo-Saxon	IV. South-East Asian	V. All surveyed
1. - 250	60	33	25	34	35
2. 251 - 1000	27	39	54	36	41
3. 1001 - 5000	10	19	12	22	17
4. 5001 -	3	9	9	7	8
Total	100	100	100	100	100

Source: Poór, J., Karoliny, Zs. and Szlávicz, Á. (2011). *Transformation of Human Resource Management in Central and Eastern European Region*. (unpublished manuscript) Gödöllő-Pécs.

The EU nonCEE and the SEA samples show similarities to the total sample in which smaller organizations (fewer than 250 people) account for only a little more than one third of the respondents. The typical size within these samples is 251-1000 people but we can also find here a considerable proportion (~40%) of companies bigger than that size among the respondents. While two thirds of the respondents from the NonEU AS countries employs more than 250 people, about 60% of the CEE sample represents companies smaller than these.

4. IMPORTANCE OF THE HR FUNCTION

Two factors that supposed to be noticeably indicating the importance and role of the HR professionals or department in the organization are related to the position of the *people responsible for HR matters in the organizational hierarchy*. Whether he/she is:

- a member of the Board of Directors or the top management team,
- involved, and in which stages in developing the business strategy.

As the data in Table 4, show, the role and importance of person in charge of HR in organizational life is substantial. Although the average numbers of the CEE region are slightly below the others, but the evolution of its figures can be considered remarkable. Different studies not only from mid 90s (Koubek and Brewster, 1995; Tung Havlovic, 1996), but also from the new century (Zupan and Kase, 2005; Svetlik at al., 2010) reported from Czech Republic, Poland and Slovenia much powerless position of HRM.

Table 4: The position and role of the HR function and the HR department

Country(ies)	HR gender division male: female%	Labor cost ratio (%)	Head of HR* in Board of Directors (%)	Involvement of head of HR* in strategy development (%)	Existence of strategies (%)	
					Business w+unw	HR w+unw
I.CEE	13:87	36	62	88	91	77
II. European Non-CEE	28:72	47	69	91	94	84
III. Non-European Anglo Saxon	25:75	49	66	87	83	83
IV. South-East Asian	28:72	25	67	94	95	86
V. All surveyed	28:72	44	67	90	91	81

* or person responsible for HR , ** w+unw=written and unwritten strategies

It is evident from the first column in Table 4 those female employees *are prevalent in HR jobs* in all subsets of the sample. However, just like in the total sample, both in EU non-CEE, and SEA samples their dominance reaches 72 per cent while in the NonEU AS it reaches 75 and it almost reaches 90 per cent in the CEE sample. According to several research findings (Zupan and Kase 2005, and Poór et al. 2007) this feature here seems to be stable in this region.

5. CONCLUSION

Due to lack of space we were able to show only a part of our research results. Here only the importance of the HR function was analyzed. The analysis on II-VI parts of Cranet questionnaire is complete. It will be published in an separate article.

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SOCIAL CAPITAL AS AN ELEMENT OF PERSONNEL STRATEGY IN A MEDIUM-SIZED ENTERPRISE

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Summary: This paper describes the significance of social capital in building the personnel strategy of a medium-sized enterprise. The author in question presents various approaches to defining social capital in an organization, as well as briefly describing its structure. It subsequently concentrates on the models of personnel strategy as determinants of the direction of the development of social capital. It indicates the necessity of selecting a personnel strategy, which includes elements of social capital that are applied to the situation on the market. There is also emphasis on such factors as the following: sharing a common vision that is expressed in collectivist values, creating entrepreneurship and activity, cooperation and building of a network of common ties both within and outside the organization at hand. Subsequent to this, there is a description of the main determinants of the personnel strategy including elements of social capital in a medium-sized enterprise. It puts forward the conclusion that a personnel strategy based on the model of human capital including elements of social capital may become the basis of market success.

Keywords: social capital, personnel strategy, medium-sized enterprise

1. INTRODUCTION

It has been maintained for a long time that success on the market was decided to a large extent by the general strategy of the company at hand, in which attention was first and foremost paid to production and distribution, whereas human resources were treated as a less significant factor in terms of an impact on the ultimate market success. Only recently have practitioners on the market acknowledged that success on a constantly changing market is decided to a significant extent by employees who are equipped with the relevant competences. The competences of managers and employees constitute human capital, which is an increasingly important factor in determining the development of an enterprise. Knowledge, skills, motivation, behaviour and attitudes with regard to the work of employees is more and more frequently decisive in whether an enterprise is competitive or not (Król 2000:240). Another equally significant form of capital associated with employees is social capital. The characteristic feature of social capital is the fact that by connecting people in social networks, it leads to the case whereby they gain benefits from belonging there. People who are connected with each other by a network of ties by trusting each other, oblige themselves to grant support and thanks to this, they have access to common resources and achieve success

Hence, it is worth building social capital. The mutual ties of social capital together with that of a personnel strategy facilitates the application of a model of strategic management of human resources are encompassing the decisions with relation to the employees that direct activities in the area of work over the long term.

2. SOCIAL CAPITAL IN AN ENTERPRISE – DEFINITION CONTEXT

In the case whereby enterprises have similar technology of production at their disposal, as well as access to markets, there is a search for factors that would facilitate the achievement of

a competitive advantage on the market. Since the late 1990s, researchers have indicated social capital as one of the determinants of success on the market. Analysis of numerous works relating to social capital in an organization indicates that it is difficult to formulate this notion in an unequivocal manner. Some authors concentrate on its social functions. For instance, J. Coleman refers to social capital as the social function of an organization, such as trust, norms and the network which may improve the effectiveness of society and the organization itself by facilitating the coordination of activities (quoted from Burt, 2000:4). Other authors indicate its internal or external dimension, namely by perceiving it either as a form of ties of an organization with its interested parties, partners, competitors (external notion of capital), or as a form and nature of ties between the members of an organization (internal notion of capital) (Leana, Frits, 2006). It is worth discussing this approach in a broader sense, namely in the external notion of capital, attention in the form of research which is directed towards the network of connections that a given enterprise maintains with its environs, e.g. with clients, suppliers, competitors and other entities. This network has an impact on its competitive potential. In the theory of a network, it is indicated that the value of an enterprise is the derivative ability to create a network organization and the right to avail of the knowledge capital created by the participants of the network (Burt, 2000:24). In this notion, attention is sometimes drawn to the network of ties between the managers of the highest level. For instance, Ch.J. Collins and K.D. Clark in analysing the strategic practices of managing human resources in the sphere of creating a competitive advantage for enterprises, stated that the strength and scope of external connections between the managers of the highest level of high technology companies are significant indicators of the growth of sales of companies (Collins, Clark, 2003:740-751).

In the internal dimension of social capital, there is an emphasis on the social ties connecting the employees of an enterprise that have an impact on the creation of the vibe of cooperation, as well as enabling the achievement of the common goals of the employees and the enterprise. The fundamental assumption of this approach is the conviction that involvement and participation in an organization may bring benefits to both the organization, as well as to the participants. J.S. Coleman in analysing the internal dimension of social capital in an organization stated that the skill of interpersonal cooperation within a group and organization facilitates the realization of common goals on the one hand, while on the other hand, facilitates the individual creation of value (Coleman, 1998:108-109). This skill co-creates such dimensions of social capital as the following: duties and expectations, information channels and social norms. In turn, the research of J. Nahapiet and S. Ghosal indicates that thanks to the development of internal social capital, the ability of an organization to adopt and produce knowledge increases (Nahapiet, Ghosal, 1998: 242-266). Social capital thus determines the growth of intellectual capital. Researchers on the basis of empirical studies and conceptual work on the ties between social capital and intellectual capital explain the following three dimensions of social capital: structural dimension, i.e. the ties between the members of an organization, cognitive dimension, i.e. common language (signs, symbols), relational dimension, which appears in obligations, norms and trust. (Nahapiet, Ghosal, 1998: 252-256) Analysis of these dimensions facilitates the definition of the attributes of social capital in an enterprise. The first of them is a structural element, which encompasses social network and information channels. This may be termed as the capital of social networks. The second is of a normative nature, which includes social norms regulating the social ties of membership that is designated in an organizational way. These ties are bilateral, mutual and regulated by an organizational structure, thus due to this fact they have the nature of regulated and normative ties. The degree of sharing the common vision of an organization also has an impact on their shape (collectivist values, subordination of the aims of units to the aims of the organization). The capital of culture is created. The third one is of a moral nature, which

includes the norms of trust and mutuality. This may be termed as trust capital. B. Badura also distinguishes leadership capital (Badura, 2008: 33).

In analysing the significance of the particular elements in creating social capital, it is worth indicating network capital first of all. For many researchers, social networks are the most significant element of social capital, e.g. J. Nahapiet and S. Ghoshal are of the view that networks are of great importance in creating and distributing the resources of an organization to its particular members. They indicate that the sum total of the actual and potential resources within an organization is accessible through the medium of a network of ties for both the employees and the organization itself. Social capital thus, encompasses both networks, as well as assets which may be initiated with the aid of this network (Nahapiet, Ghoshal, 1998: 243). A network participant not only participates in the social capital of this network, but also contributes to its development. Such a participant invests in maintaining these ties by providing his abilities, talents, as well as tangible and intangible resources at the disposal of the other members of this network. Thanks to this fact, he may also avail of the abilities, talents and resources of the other members of the network. Units participate in social networks as they bring them specific benefits. Attention is drawn to this fact by A. Portes, who is of the view that the feature of social capital is the ability of entities to ensure benefits from the membership of social networks or other social structures (Portes, 1998:6). In the theory of networks, the main assumption is the claim that the players involved are not independent units of an organization, but are rather dependent on the other participants of the network (Fuchs, 2006:125). In accordance with this approach, the unit is not an isolated individual whose foundation is merely his biologicality, but his thinking and activity are influenced by culture. The scope of this influence is dependent on the quality of ties between the network participants and their cultural institutions, e.g. the system of characteristic norms and values for a given network (Kilduff, Tsai, 2003:5).

Another attribute of social capital is leadership. This has an impact on the development of social capital in a twofold fashion, through the medium of designating the aims, structures and processes, as well as the means of taking the everyday personnel decisions and communicating with understudies. Personnel decisions are conditioned in a particular way that is characteristic for the organization of values that favours the creation of a good or bad vibe in an organization. Such communication between the management and the employees has an impact on the quality of social ties in an organization. Good communication between the manager and a team of employees results in positive ties. Elements of good communication are a fast and efficient flow of information with regard to important organizational issues, effective feedback, as well as the so-called "open ear" for co-workers. An indicator of leadership capital is the orientation towards the employees. A high orientation towards understudies among managers results in the creation of positive emotions among employees, which gives rise to consequences in increasing the efficiency of employees. B. Badura indicates that the orientation towards employees is displayed by interest in the personal matters of employees and acknowledgement of the achievements of individual employees (Badura, 2008:35).

Another element of the social capital of an organization is its culture, which consists of common values, convictions and norms, identical forms of perception, thinking, evaluating and activity. Its resources exist in the common thinking, emotions and values, which reduce the probability of the occurrence of misunderstandings, controversies and conflicts, as well as having an impact on the restriction of costs associated with the monitoring of employees. Cultural capital fulfills various functions in an enterprise, namely serving the development of positive approaches of employees to their enterprise and the management (Kostera, 1994:18).

Subsequently, it influences the shape of social ties in an enterprise, by creating emotional ties between the personnel, tasks and the vision of the organization at hand.

An equally important element of social capital is that of trust, as previously mentioned. By availing of the approach of R. Putman, it is possible to state that trust in an organization as displayed to other employees is based on the principle of mutuality, with the notion that it is necessary to do something for a co-worker without expecting immediate gratification, but with the hope that in the future the same co-worker, or another co-worker will return the favour (Putman, 1995). This constitutes the system, which complements organizational control. In an enterprise, the indicators of trust are as follows: co-participation, the values of cooperation, motivation and structures, identity and involvement, as well as the culture of trust.

The skilful use of social capital both external, in the form of ties with the external environment, as well as internal, which occurs in the form of teamwork and cooperation between individuals within the framework of social groups will favour the increase in value of this organization on the market. Hence, an enterprise through the means of ties with the external environment, as well as through the structure and nature of internal ties expands its ability to compete with other organizations, which is a function of both types of ties (Adler, Kwon, 2002:21).

3. SOCIAL CAPITAL AS AN ELEMENT OF PERSONNEL STRATEGY

In enterprises operating in conditions of uncertainty and relatively high level of variability, a significant role is played by personnel strategy. Its significance comes down to the activities encompassing the designation of long term aims directed towards the constant improvement of the particular elements of human potential with the aim of adjusting them to the changes occurring within the enterprise and its environs (Pocztowski, 2007: 53). Personnel strategy is usually of an intricate nature that occurs during the course of searching for answers to the following questions: What is the state of an enterprise with relation to human resources? How may we assume to acquire a state of employment over a specifically long-term period of time? With what methods do we intend to achieve this state? Will social capital be helpful and to what extent in the development of human resources? Responses to these questions constitute a fundamental sub-strategy built for the particular personnel functions such as recruitment of employees, improvement of employees, or even development of social capital. The creation and scope of realization of these personnel sub-strategies depend on the degree of integration with the personnel strategy with the remaining elements of the strategy of an enterprise. The function of personnel strategy is to aid the organization in its strife towards achieving its established goals. Thus, the appropriate matching of the strategies of an enterprise with the personnel strategy is essential for the company in question to achieve success on the market. Nevertheless, integrating these two types of strategy is not always the optimal solution. With relation to this fact, managers should identify the mutual ties between the strategy of the company and the personnel strategy as early as at the stage of preparation and implementation. The analysis of the ties between the quantitative indicators that is characteristic for business strategies, i.e. the dynamics of production, the development of a new product, the application of new technologies, while also elements of the personnel function, the recruitment and improvement of employees, evaluation of personnel and their motivation. It is also worth analysing the ties between the afore-mentioned quantitative indicators and the attributes of social capital, e.g. the effectiveness of social networks, the level of social trust and the resource of value. Focusing on this analysis facilitates the indication of the importance of creating social capital as one of the determinants for the

development of the enterprise. With this aim in mind, it is worth considering the dependency between personnel strategy and the social capital of an organization.

Mutual dependency between the personnel strategy and the social capital of an organization may be followed by analysing the following types of strategies: development, stabilization (defending the current position) and defensive action (reduction of costs) (Janowska, 2002:23-25). The strategies of development, which are characterized by innovative activity and analytical-research activities undertaken with the aim of launching new products or gaining new markets, require employees of the highest meritorical and creative qualifications. Employees are required to have work qualifications, constantly increase skills and focus on innovation and a constant analysis of the environment. The personnel plan assumes that in the case of recruiting new personnel with a high level of competences or constant improvement of the employees already employed through the means of organizing training at a high level. An important function is fulfilled by trust, which facilitates a rapid adaptation of the newly recruited employees and has an impact on the creation of the orientation towards teamwork.

In a situation of the strategy of stabilization, which is focused on the maintenance of the position on the market that was gained thanks to the high quality of the goods or services offered and perfectionism in activities, employees with relatively high qualifications are necessary. The personnel plan assumes the maintenance of the squad of workers, as well as the constant improvement of employees guaranteeing the maintenance of the market position. In this type of strategy, it is worth developing social networks whose participants would be the employees. A network participant not only participates in the social capital of the said network, but also has a contribution in its development. Such a participant invests in the maintenance of these ties by placing his abilities, talents, while also tangible and intangible resources at the disposal of the other members of the network. Thanks to this fact, it may also avail of the abilities, talents and resources of the other network participants. This mutuality is the basis of developing the capital of a network and guaranteeing the development of an enterprise without the necessity of investing additional financial means. Networks are therefore, not only a social space within which we may only analyse the practices of operations and behaviour of the network participants, but are also the result of social interaction, whose social capital constantly reproduces and creates a new image (Fuchs, 2006: 26). The characteristic feature is its creation of knowledge, as well as its exchange between the participants, which enables it to improve constantly.

The defensive strategy in assuming the reduction of costs is adopted in situations of unfavourable economic conditions, excessively strong competition, low level of competences among employees etc. These are featured by internal restructuring and maintain or change the profile of operations. The consequence of this strategy is on the one hand, the reduction of employment figures, while on the other hand keeping the best employees and their constant improvement. The factor supporting the reparation work and reducing situations of conflict aroused by the reparation process may become that of social capital. In particular, it is worth developing one of its elements, namely, the capital of partnership culture. The significance of this for an organization results from the values of the so-called teamwork, openness in communicating, ability to run dialogue and subjectivization of employees. The building of trust between the management and the employees is equally important. In an enterprise in times of crisis, it is possible to first of all strive towards the creation of conditions for the development of rational trust, or in other words, the creation of a transparent structural arrangement of an organization in which transparent conditions of cooperation would be binding. The following step may be to build moral trust based on adherence to moral standards in ties between employees and managers.

The personnel strategies described above do not occur in the shape of a "clear form" in enterprises, but are rather a set of elements of several strategies. Building a strategy is to a large degree dependent on the market situation of a given enterprise.

4. MODELS OF MANAGING HUMAN RESOURCES AND PERSONNEL STRATEGY IN A MEDIUM-SIZED ENTERPRISE

In medium-sized enterprises due to the fact that they have functioned longer on the market professional management of human resources have formed. It is possible to distinguish three models of personnel management among these firms as follows: the model of the status quo, the expansive model (Oleksyn, 2000:120-123) and the model of human capital, which have consequences for personnel strategy.

The model of the status quo is adopted by firms that do not want to continue development, but only want to maintain their existing position on the market. These enterprises during the course of their activities focus on good quality of goods and services and building of ties with their clients. This building of ties appears in the form of reliability and honesty in contacts with clients, as well as with cooperating firms. The consequence of the model of the status quo is that of personnel strategy, in which a specific type of employee is preferred for employment in the enterprise. Such an employee is featured by high quality of work executed, culture in contacts with clients, dependability and honesty. In the market reality, it is difficult to find such an employee as the necessity of applying low profit margins and restriction of labour costs forces in turn, restrictions in the sphere of remuneration. With relation to this, employees employed in these enterprises may not count on high salaries, which – in the case of highly qualified employees – results in the search for other more attractive workplaces. Thus, the aim of the activities of managers should be to retain the specialists of high class in the enterprise at hand. Social capital may be helpful in this area, particularly its element that is known as the capital of organizational culture, which may take on the form of partnership culture of the organization based on the partnership ties of employer–employee (Bylok, 2011: 134-154). These ties are between the employer and employees on one hand, while on the other hand employees require the building of trust, cooperation and common interests. Employees are expected to devote their creativity and personal involvement to the development of the enterprise. Simultaneously, the employer makes his contribution to the building of partnership ties by allowing employees to participate in the information, communication and decision-making processes.

The expansive model is based on a pro-development and pro-market orientation. The pro-market orientation in an enterprise is the focus on production and the client. The enterprise becomes familiarized with the needs of the consumer and organizes the activities to serve them. This orientation first and foremost occurs during the course of drawing attention to the economic assessment, innovativeness, effectiveness, personalization of the economic aims of the enterprise that are identifiable with the aims in life of the employees, functionality – maximum usefulness of all the values participating in management aimed at maximizing financial values, marketing and market awareness of the enterprise (Strużycki, 1993). The impact of market orientation thus encompasses the process of production, distribution and promotion. Pro-market orientation is associated with the pro-development orientation. The essence of this orientation is that of activities on behalf of improving the market position via expansion. With this aim in mind, new markets and new forms of activities are sought after, which in turn are connected with the risk of suffering failure on the market. With relation to this, the personnel strategy is directed towards acquiring managerial staff on the one hand, which is featured by openness, activity, imagination and skills of taking risky decisions, as

well as first and foremost, entrepreneurship. On the other hand, employees who are active, flexible and at the disposal of the company are the preferred choices. Due to the increased risk of activities, the loyalty of employees and the skill of cooperation are highly valued. In this model, it is worth building social capital based on the network of connections of the enterprise with its environs, e.g. with its clients, suppliers, competitors and other entities. The network of ties, which a given organization participates in, is created by relational capital.

From the perspective of social capital, it is worth describing the model of human capital, which assumes that the fundamental mechanism for the functioning of human resources is not rotation, but professional development of the employees. It is assumed that a human being is a person that is capable of learning throughout his life and by ensuring the development of a company's employees, this "attaches" them to the company at hand. In personnel strategy, attention is paid to employees as the most important resource of the enterprise. People are accepted for work in the company who are susceptible to self-improvement and effective cooperation. Employees are made redundant very rarely and if someone is not working effectively, then he/she is transferred to another position rather than being made redundant (Kostera 1994:27-28). The feature of this model is the fact that it generates an element of social capital known as the capital of organizational culture based on ethical values, namely, loyalty, sense of involvement and cooperation, thus, it creates collectivist attitudes.

5. CONCLUSIONS

The analysis of the Polish economic reality indicates that the majority of companies do not possess a personnel strategy. The research of Janowska concludes that almost half of the enterprises analysed do not possess a personnel strategy (Janowska, 2002:40). In as much as small enterprises numbering just several or umpteen employees may function on the market without such a strategy, the medium-sized enterprises should not operate without one. Building a general strategy of a company and the associated strategy of managing human resources is now becoming essential. Such a strategy in the sphere of personnel should include aspects determining the development of social capital in the organization. The advantages of social capital are among others, the creation of mutually beneficial collective activities by establishing the roles and social networks that are complemented by regulations and procedures that facilitate the functioning of the organization. Social capital creates the social features of an organization such as trust, norms and ties, which improve the efficiency of an organization. This creates the tendency of employees to move towards undertaking mutually beneficial collective activities (i.e. trust, solidarity, cooperation, justice, democratic management).

The strategy of personnel management should create entrepreneurship and activity, as well as build a network of mutual ties both within and outside the organization. With the aim of increasing the market position, medium-sized enterprises should move away from the model of management based on employee qualifications in the direction of shaping the competences of employees and cooperation. It is becoming necessary to inspire the personnel to undertake constant education and development, regardless of the level of education, age and position. However, this requires such an orientation of the specific financial outlays for building an enterprise based on social capital, which in the case of the majority of medium-sized enterprises is difficult to realize.

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CONTRIBUTED PAPERS

SATISFYING THE NEEDS AS A DETERMINANT OF THE ORGANIZATIONAL COMMITMENT

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Summary: Article presents the description of a correlation between satisfying needs and organizational commitment. As a basis for analysis of this relationship A. Maslow's theory was chosen, which allowed for carrying out dual-plane considerations. It enables to state hypotheses indicating determinants of the type of commitment dominant in the employee as well as the reasons for the development of commitment. The presented concept is an expression of a new approach to the issue in question and the presentation of a research method enabling the verification of stated hypotheses.

Keywords: organizational commitment, motivation, needs

1. INTRODUCTION

The aim of the article below is an attempt to answer the research question: what determines organizational commitment? The solution seems to be multidimensional. Interesting conclusions come from analysis of the issue from the perspective of human needs as seen by A. Maslow's theory. It enables to show two sides of occurring relation, and conclude them in the form of two hypotheses. The first one indicates that the type of organizational commitment is conditioned by the degree of satisfaction of basic needs. The second one presents the position saying that the development of organizational commitment is determined by organizational factors (management style, organizational culture, organizational structure and realization of personal function).

The article was drafted as a set of answers to the detailed research questions stated in headings. This procedure is intended to show the most important issues concerning the relationship between the ability to meet human needs in the organization and development of organizational commitment, as well as to illustrate the path of searching for the answer to the main question posed in the article.

2. IS THE ISSUE OF ORGANIZATIONAL COMMITMENT PRESENT IN FLEXIBLE ORGANIZATIONS?

The environment, in which modern organizations function, has a turbulent character (Leksykon zarządzania, 2004, p. 397). It means that people have to be continuously prepared for unexpected changes that may occur. Therefore, action need to be flexible, able to adapt quickly to new circumstances. Insecurity is further aggravated by flexible personnel policy of organizations. Organizations using the argument of environment turbulence, do not provide the stability of employment and work conditions. The sense of temporality does not allow building of lasting and long-term relationships. From the perspective of human functioning in organizations, this translates not only into the necessity of development of ability to adapt behaviour to the transformation of the work situation, but also mobility of the workplace. Hence, the doubt arises whether the issue of organizational commitment understood as a commitment to the organization is still a research problem? Literature studies and observation of reality leads to the conclusion that actually recorded lack of permanent and long-term

relationship between the employee and the employer does not obsolete the problem, because the situation described is not equivalent to lack of need to establish such relationships. This is not, however, equivalent to the lack of need for establishing a relationship between employer and employee. In these difficult conditions, there is still a need for engaging people in their work, so that the resulting efficiency allowed the firm to survive and develop (Drucker, 2001, p. 33-34). It is hard to imagine workplaces, which at the same time succeed in the market and have variable and uncommitted staff. Therefore, the importance of organizational commitment does not lose its value and still demands attention.

3. HOW DO HUMAN NEEDS DETERMINE ORGANIZATIONAL COMMITMENT?

One of the most popular and most useful theories about human needs is by A. Maslow. Systematization approved by the author very accurately describes the basic groups of needs, which direct the man throughout his life. However, it is hard to agree that the man seeks only to satisfy the needs from the level he managed to reach in the course of his development (Maslow, 1990, p. 72-86). Therefore, the majority of people in all areas of their lives should aim exclusively at self-realization. It is not so, however. Among others on the ground that in different spheres of their lives people are motivated by different needs. Work could be a place to seek security, particularly material one, whereas private life – self-realization, or vice versa (Weber, 1996, p. 100-101). Moreover, a desire, which was permanently blocked due to the occurrence of circumstances, which prevented its satisfaction, can become dominant. In the workplace these could be bad, arduous working conditions which contribute to psychophysical fatigue of workers.

Whereas the assumption about the individuality of the structure of needs (Znaniński, 1991, p. 65) makes it possible to look at the issue of organizational commitment from two different perspectives. The recognition that people have different needs depending, among other things, on the situation in which they are, how much have they managed so far to meet their basic needs, sheds new light on many problems of motivating people to work. As to the organizational commitment, adoption of such a position enables illustration of the determinants of the employee's attachment to the organization by showing sources of development of the character of the commitment as well as indication of the areas relevant to the initiation of organizational commitment in workers.

4. WHAT DETERMINES THE TYPE OF ORGANIZATIONAL COMMITMENT?

N.J. Mayer and J.P. Allen created multidimensional concept of organizational commitment, distinguishing three reasons for the decision to stay in an organization (Coetsee, Roythorne-Jacobs, 2008, p. 63). These are the following: affective, continuance and normative reasons for keeping on employment. The sources of the type of commitment, present in an individual, have been seen so far in various factors, including internal ones (Lee, Ashford, Walsh, Mowday, 1992). One of them shows a relationship with personality traits listed in the Big Five model (Kumar, Bakhshi, 2010). Seeing the basis of the commitment's nature in the personal factors influencing the behaviour of individuals is justified because the type of commitment as observed in individuals is an expression of their attitude to work namely, permanent disposition to their relation with an employer (Lee, Ashford, Walsh, Mowday, 1992, p. 16).

The reasons for the development of a specific type of commitment could be found through the analysis of needs, which the man wants to satisfy in the workplace. It could be explained by the assumption that a certain category of needs is dominant in an employee (Weber 1996,

p. 53-55). By observing behaviour of people in organizations, we can notice purposeful efforts to meet the priority expectation, which may be professional or intellectual development, or job and pay security. Following this logic, conclusions can be drawn to prove the thesis on the existence of the relationship between the commitment type and the level of satisfaction of basic needs of the individual.

The lowest-placed in A. Maslow's the structure of needs are physiological and safety needs. Aspects of life that form the basis of their satisfaction (low-impact living and working conditions, stabilization of existence, including employment, predictability of events) relate to matters which are subject to calculation and profit and loss assessment, resulting from the duration of employment and the possibility of maintaining life free from fears about basic living conditions. Taken into account are not only financial considerations but also the social ones, such as the problem of acclimatization in the new group. Therefore, the motivation for continuance of employment is characteristic for insecure people calculating costs of changing jobs. (Smith, 1999, p 28-29). The arguments discouraging make this difficult decision *gain* advantage in this reckoning.

Calculative commitment may also have a "second face", belonging to the people with unmet security need, who in their organizational behaviour are not guided by satisfying their affiliation and self-actualization needs. Behind these characteristics hides an employee who coldly assesses possibilities to multiply his own capital in the organization. Simulated results become the basis for a decision of staying or leaving the company.

Normative commitment to the workplace is based on the conviction of the need to redress the people who care about the quality of life in the workplace. This is an attitude formed during the period of individual development, when the need to redress other people was shaped in an independent way, or it was rooted in socialization process (Yao, Wang, 2008, p. 248). People who base their sense of functioning in the organization on building interpersonal relations and showing mutual respect feel obliged to specific behaviour towards social groups to which they belong. Based on these assumptions we can conclude that people guided in their activities by social needs show normative commitment.

Table 1: Relationship between the type of organizational commitment and human needs

<i>Type of commitment</i>			
Type of needs	<i>Continuance commitment</i>	<i>Normative commitment</i>	<i>Affective commitment</i>
physiological needs	assessment of working conditions	-	-
emotional security needs	estimating the psychological comfort	-	-
material security needs	calculation of material benefits resulting from employment	-	-
affiliation needs	-	reciprocation of acceptance	-
recognition needs	-	gratitude for the recognition received	-
self-actualization needs	-	-	joy of working with passion

Source: own study

Self-actualization is a state in which the man intuitively and emotionally expresses himself through undertaken activities. Calculation, as well as the need to reciprocate in this case is

overshadowed by a strong inner conviction of choosing the place and type of work most suitable for realization of own passions. Therefore, in terms of emotional attachment we can speak about a relationship between the development of that kind of commitment and experienced by the individual sense of mission, which is a source of positive emotions, arising as a result of performed tasks (Maslow, Stephens, Heil, 1998, p. 7-8).

The synthetic conclusion of the above description is Table 1. It shows determinants of the type of organizational commitment as assessed from the perspective of the employee's aspirations. The suggested model systematizes the relations between the issues discussed.

5. WHY DO EMPLOYEES DECIDE TO LEAVE THE JOB?

In the process of development of organizational commitment its nature seems to have secondary significance for the decision of staying in the organization. However, of special interest are the elements of the work situation directly affecting the employee, enabling or blocking the realization of the individual expectations of employees (Smith, 1999, p. 30). This perspective of studying organizational commitment is of great significance because the workplace is a source of fulfillment of the full range of needs, the structure of which is individual to each person and results in particular from experience gained, the existing level of satisfying the specific need, and intellectual abilities (Znaniński, 1991, p. 68; Szewczuk, 1975, p. 310). If employees have a possibility to participate in the organization on terms enabling them proper functioning, then they will stay in the organization. If, however, they are faced with barriers, which make that the quality of their working life is low as they feel frustrated due to toxic relationships with people, lack of recognition for their work from their employers, or highly aggravating working conditions. As a result, their commitment also decreases and there appear notions encouraging the change of employer (Maslow, Stephens, Heil, 1998, p. 20-42).

Table 2: Model of barriers to satisfying needs of employees in the organization (Part 1)

<i>Type of need</i>	<i>Managerial barriers</i>	<i>Barrier feature</i>	<i>Cultural barriers</i>	<i>Barrier feature</i>
physiological needs	focus on the tasks	the requirement for high performance	high degree of tolerance of uncertainty	causing maximum psychophysical overload in employees
security needs - emotional	democratic/ unintrusive managerial style	imposing on employees the responsibility for decisions	high degree of tolerance of uncertainty	pressure to undertake difficult tasks
	authoritarian managerial style	excessive work control	low degree of tolerance of uncertainty	frequent changes of work regulations
- material				deepening fear of change
affiliation needs	focus on tasks	lack of emotional relationship with subordinates	individualism	lack of interpersonal bonds in a team
recognition needs	negative motivating	underestimation of subordinates' work	large detachment of authority	not showing appreciation for work
self-actualization needs	authoritarian managerial style	imposing decisions, solutions and methods of work	collectivism	lack of opportunities for individual action

Source: own study

Table 3: Model of barriers to satisfying employees needs in the organization (Part 2)

<i>Type of need</i>	<i>Structural barriers</i>	<i>Barrier feature</i>	<i>Personal function barrier</i>	<i>Barrier feature</i>
physiological needs	narrow specialization	monotony of work	physical working conditions	psychophysical overload in employees
			work time	exhaustion of employees
security needs - emotional	low formalization	lack of established work regulations	employment planning	unexpected job change
			trainings and development of employees	the need to make changes to the way of working, requirement to assess
- material	low formalization	lack of employment stability	employment planning	unexpected dismissal
			remuneration systems	lack of clearly defined employee benefits failure to comply with payment of wages
affiliation needs	wide scope of management	team disintegration	selection of staff	lack of staff adaptation
recognition needs	high formalization (of communication)	reduction of the informal expression of recognition	evaluation of employees	underestimated performance assessment
selfactualization needs	high standardization	lack of opportunities for work improvement	building career paths	limitation of the professional career development
			trainings and development of employees	lack of training offer

Source: own study

Indication of factors responsible for barrier to the development of organizational commitment is possible thanks to the construction of the model of barriers to satisfying employees needs in the organization (Bieńkowska, 2011, p. 94). This is the original concept of searching for factors determining the ability to satisfy individual expectations of employees towards their work place. Also, it can be applied to the study of detailed determinants of commitment. Its structure is based on the matrix, in which the lines describe human needs, and the columns – the conditions of organizational functioning. For each of the specified needs the type of adverse condition was indicated. As a result, at the intersection of a type of need and a specific barrier-creating factor, a particular type of barrier was written down. This resulted in 32 potential barriers to meeting the needs of employees in the organization (Table 1 and 2). They reflect the circumstances that prevent the development of organizational commitment and provide guidance, what kind of situations should be subjected to empirical verification in order to understand the factors that determine the commitment to the organization.

6. HOW TO STUDY ORGANIZATIONAL COMMITMENT FROM THE PERSPECTIVE OF HUMAN NEEDS?

The specified dimensions of commitment require their own operational definitions, necessary to develop research method. Verification of the first hypothesis – the type of organizational commitment is determined by the level of basic needs satisfaction – can be based on the assumption, that the type of commitment can be recognized on the basis of simultaneous occurrence of two symptoms: indicating a specific factor as expected in the work place, and its high value in the employee's hierarchy of importance. With regard to the verification of the second hypothesis, stating that the development of organizational commitment is determined by organizational factors – the approved definition contains another two aspects, namely: estimating a certain condition as a factor initiating commitment, and reporting the need of its occurrence.

The use of a model of barriers to satisfy the needs of employees in the organization makes possible to specify a set of circumstances that should be subject to examination of factors that determine the commitment in workers. It is the basis for the formulation of sentences indicating expectations of employees.

Finding out the reasons for commitment to the organization is possible by means of a verbal scale survey in which respondents can express the degree of compliance of statements reflecting aspects of the working situation with their individual feelings. The statements included in the survey allow us to read what kind of conditions: managerial style, organizational culture, organizational structure, realization of personal function contribute to the development of organizational commitment. Whereas, the diagnosis of the nature of the commitment is based on an assessment, in accordance with an accepted concept, of the dominant need of the employee.

7. CONCLUSION

The study of organizational commitment from the perspective of human needs is an expression of the new approach, serving to acquire information about the foundations of relationship between staff and the organization. The knowledge of the reasons for occurrence of the commitment makes it possible to create working situation beneficial from the point of view of the employees. While the knowledge about the type of organizational commitment enables to build the background, which explains people's behaviour in the organization. *Moreover* conducting research according to the method suggested above enables verification of dependencies between diagnostic part of the questionnaire and socio-demographic data, and hence it allows acquiring information about the foundations of the observed discrepancies between generations X and Y, or between men and women.

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MOTIVATION IN THE AGE OF CRISIS IN GREECE

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Summary: This paper outlines and discusses an approach to HR management in crises and especially to motivation in Greek Civil Engineer Consultant Companies during the economical crisis of 2010-12. A discussion of the definition, the nature, the anatomy of crisis, and an analysis of crisis behaviour are presented in the first part of it. Next part is consisted of a literature review of motivation and motivation theories. The paper is integrated with a case study, results and conclusions. The aim of this paper is to investigate the crisis, to explore the patterns of motivation, which emerge in response to crisis in Greek Engineer Consultant Companies, and thereby to identify the layout of the statement, helping the managers to cope with it more effectively. While this paper is presented within this restricted context, it will be interested to any manager who operates an organization in a crisis time.

Keywords: HR management, Civil Engineer, Greek crisis, motivation

1. INTRODUCTION

Now and perhaps more than ever, we have a need of good leadership and motivational methods. To get through the financial crisis we are experiencing at the moment, a strong focus on motivation has to be made. Today in Greece of 2012, we are having the highest unemployment rate of 20%. In the latest years we have experienced an increase in firings and it has become difficult to get a job. This is a problem both for the newly educated but also for the established career person who has been fired. Therefore especially in a situation of crisis, concepts such as leadership and motivation are important. Leadership and motivation are two of the most important concepts in a company for being successful.

In relation to the crisis, but also just in general to the changes in the society, there have come different aspects or worries up to the surface, for people. When time changes and the society is in a crisis, there might also be a need for change in the leadership and the way the leaders are motivating the employees. In organizations, the aspect of uncertainty has come up. This has to do with all the firings and closed down companies. Many employees do not feel that they are safe anymore in their job. According to Maslow's Hierarchy of Needs, security is one of the lower-level needs and for an employee to strive to the higher levels and perhaps in that way perform optimal, the lower levels have to be satisfied. If people do not feel secure and safe in their jobs, it will be a challenge to find a way to motivate and lead them.

2. DEFINITION OF CRISIS

A crisis is described as: 1) a major threat to system survival with, 2) little time to respond (Hermann, 1963), 3) involving an ill-structured situation (Turner, 1976), and 4) where resources are inadequate to cope with the situation (Starbuck & Hedberg, 1977; Webb, 1994).

A crisis (Booth, 1993) is "a situation faced by an individual, group or organization which they are unable to cope with by the use of normal routine procedures and in which stress is created by sudden change". More specifically, a crisis is an unexpected event in an organization's life, for which there are no contingency plans in place, which threatens high priority goals and

demands a time-pressured response (Brecher, 1977). Pauchant and Mitroff (1992) believe that a crisis is a "disruption that physically affects a system as a whole and threatens its basic assumptions, its subjective sense of self, its existential core".

Although a crisis calls into question the survival of a system, it can lead to either positive or negative organizational outcomes (Marcus & Goodman, 1991; Pauchant & Mitroff, 1992). Some scholars have even argued that the trauma inherent in crisis is developmental for a system, by providing individuals within the system opportunities for learning and change (Pauchant & Mitroff, 1992). However, that whether positive, negative, or developmental outcomes follow crisis depends on the nature of organizational behaviours during crisis. Moreover, because of the multitude of forces, which interact during a crisis, it provides an excellent context for the integration of the theory.

3. CRISIS BEHAVIOUR

Behavioural sciences indicates that crisis behaviour can be explained by reference to the structure of people's communications during a crisis, to the way they cope with change and to the increased psychological pressures which characterize such periods.

While individuals react in different ways to a crisis, numerous standard models of crisis behaviour have been developed. Typical of these is a model proposed by Fink et al.(1971) which like others, shows a range of behaviours evolving in a predictable order. The 'shock phase' is the initial state of appraisal in which the threat is first perceived; the 'defensive retreat' phase represents the first attempt to cope with the threat by using familiar established approaches; the 'acknowledgement phase' involves a reappraisal period in which the threat is more recognized with all its implications and finally the 'adaption and change' phase involves a more realistic period of coping.

The research (Xanthakis, 2012) showed that the behavioural implications of stress are numerous. It was pointed to a loss of attention to problem solving, increased decision-making errors, and greater rigidity in exploring alternative courses of action and withdrawal behaviour. Individual reactions to stress include agitation, lowered span of attention, sickness, aggressive behaviour, impulsive behaviour, depression, lower tolerance of risk and lower tolerance of other's opinions. Crises are likely to be characterized by different phases of behaviour although this is not inevitability. Rather, it is dependent upon the attitudes and interests of those effected and upon the way a crisis is managed. Where crises are characterized by a number of behavioural phases, it is not possible to generalize about a specific and repeatable pattern occurring. The most disturbing fact to emerge is that crises appear to generate forces to reinforce negative phases of behaviour and weaken positive phases. Effective crisis management demands that managers develop a sense of collective responsibility, mutual sensitivity and responsiveness. The management of behavioural change and conflict are key aspects of the crisis process because crises have a destabilizing effect. Continuous attention to maintaining behavioural stability is required because once initiated, any instability accumulates a self-perpetuating momentum.

4. MOTIVATION

Motivation represents one of the central problems of the organization because relationship between organization and work force is extremely important. It is guided by the motives, which are withheld by employees and by what is the force, which energize him toward professional work. In the present context, when economical societies are crossing an

economical crises keeping the best employees they have, without motivating them only financially, but also through another types of motivations.

Motivation has been important for many years both in the personal life but also in the work life. When looking at motivation from a psychological point of view, it is about achieving a goal, and leading towards goal-directed behaviour. In relation to the concept of motivation, there are two aspects present. The first aspect is the instinct, which is an innate biological mechanism that determines ones activity. The other aspect is the motive, which is an innate mechanism that is built and made personal by learning. Motives satisfy needs that are not directly based on the requirements of the body.

A definition of the word "motivation" in a business dictionary is the following: "Internal and external factors that stimulates desire and energy in people to be continually interested in and committed to a job, role, or subject, and to exert persistent effort in attaining a goal. Motivation is the energizer of behaviour and mother of all action. It depends on the interactions among conscious and unconscious factors such as the (1) intensity of desire or need, (2) incentive or reward value of the goal, and (3) expectations of the individual and of his or her significant others".

Motivation has many aspects. There is the internal and the external motivation. In relation to internal motivation, there are rational factors such as expectation, self-confidence and goal management. Furthermore, there are the irrational factors such as needs, qualities, and personality. Looking at the external motivation, there are the points of job design, which account for motivations factors and job characteristic. The other sub point, being economic and social factors, such as rewards, justice, and personally wages. The effect motivation creates a focus on specific assignments, creates energy, effort, and a determination, which creates more persistence. Lastly, it affects the job, in the sense that the employees will make plans for how their given job will succeed (Laegaard, 2008).

Throughout the years, there have been a lot of different theories about motivation. It all started with the traditional or the classical theories such as the Scientific Management, developed among others by Frederick Taylor (1856-1915). The assumption behind this theory is that people act rationally in an attempt to maximize the economic return to their labour. At that time, it was believed that working was not fun and something you would not chose if you had a choice. Furthermore, the reason behind people wanting to work was money. If people were paid enough, they would perform any job (Brooks, 2009).

This view on motivation is no longer valid or at least not the full view. It is outdated due to differences in the society but also more aspects have been found and motivation is no longer as simple as that. Different theories developed after the Scientific Management are presented and seen in relation to different aspects.

According to Iqbal and Mehri (2011) "The existing literature supports the view that the sensitivity of employee motivation and job security level magnifies during economic downturn". At his turn Gustin (2009) has following remark: "when employees are worried about benefits, their motivation can suffer, resulting in lower levels of performance and productivity" Also Creech (1995) observe that "responsibility denotes a feeling that a person has toward the job, through a commitment that stems from a possessory interest in some aspect of that job".

Above arguments describe the obvious fact that the efficiency of the organizations depends on how much effort is willing to give an employee for achieve the personal and organizational objectives. The competition is hard between the organizations who want to keep their best

employees. Keeping in attention the context of economical crises, knowledge of dynamics of motivation become an element of direct predictability of organizational success.

Many perspectives are in existing literature regarding the motives. Kline (2001) in his survey about managers describes ten factors in order of importance (with 1 being the most important and 10 the least important) based on what they thought their employees feel as important to them. The ten factors were a feeling of being in on things, job security, interesting work, personal loyalty to employees, tactful disciplining, good working conditions, promotions and growth in the company, good wages, help on personal problems and appreciation of work done. While Iqbal and Mehri (2011) notify that, "interesting work; good pay; full appreciation of work done and job security are outstanding drivers for employee motivation".

For Ramlall (2004) the list includes needs of the employee, work environment, responsibilities, supervision, fairness and equity, effort, employees development, feedback. D. Elizur (Corbett, 1994) realized a cross-cultural research in a number of countries. He put the subjects and tried to make a hierarchy with the factors who influence their work motivation (1 - the most important factor, 10- the least important factor). As it is shown from the results (Table 1) there is a significant different, which depends on the cultural environments.

Table 1: Motives in some different societies, research of D. Elizur

	USA	UK	Germany	Holland	Taiwan	Korea	Hungary	China
Interesting work	1	2	1	1	2	3	6	5
Accomplishments	2	6	7	2	1	1	2	1
Advancement in career	3	7	10	6	4	7	10	6
Personal recognition (self esteem)	4	5	9	9	3	9	7	3
Abilities used at work (properly)	5	4	6	5	8	4	5	2
Autonomy at work	6	9	5	4	7	10	9	4
Security of the job	7	8	4	8	5	2	8	10
Good manager (attentive and correct)	8	10	3	7	6	6	1	7
Good incomes	9	3	8	10	10	8	4	9
Good colleagues (agreeability)	10	1	2	3	9	5	3	8

Source: (Panisoara, 2006)

Kline (2001) remarks that "managers seem to place more importance on career issues (good wages, job security and promotions) as motivational factors, while employees place more importance on personal issues (appreciation, inclusion/shared information and help on personal problems) as motivational factors.

5. THE CRISIS OF THE GREEK ECONOMY

By the mid-1990ies, the Greek economy was in a period of gradual adjustment and change. Tourism, shipping, construction, banking and telecommunications were the major sectors that attracted investment. Agriculture and Manufacturing entered a period of relative decline until 2000 and absolute decline thereafter. When the economic crisis of 2008 started to

produce its worldwide impact, the Greek economy was already in a process of disintegration. In May 2010, the EU and the ECB secured the financing of the Greek economy for the next three years under the terms of a memorandum. Greece accepted a complex agreement, which ended the country's capacity to decide on its fiscal policy and provided for a large number of harsh measures in almost all areas of social and economic life. Pensions and salaries have been reduced in the public and in the private sector resulting in a drastic deterioration of the economic conditions for the majority of the population. In 2012 Greece accepted a second economical agreement, as the first characterised 'failed' and provided for a large number of more harsh measures in all areas of social and economic life.

6. STRUCTURE OF THE GREEK CONSULTANT ENGINEERING COMPANY

The Greek Civil engineers mainly in large urban centres (and especially in Athens) who work in large companies are called cooperated engineers. The company provides them with everything it is required (equipment, software and hardware, peripherals). They work at the company on a daily schedule, specific hours. This category of Civil engineers is the studied population of this paper. The organizational structure of these companies could be classified as "simple", "horizontal" and "fluid". The size of these companies, comparing with them of other sectors could be described as small to medium. For example the average number of employees of a classified as 'medium size' consultant company are about ten. The number of companies of the sector is limited, and there are several collaborations between them mainly to undertake large public projects. The companies are placed mainly in Athens, while they made projects in whole Greece. The sector is consisted of a small number of companies and the total number of employees is also small.

7. CASE STUDIES -METHODOLOGY OF RESEARCH

The main objectives of the research are identifying the motivation of the specific population of engineers and especially the hierarchy of main motives of it. We used the list of factors of D. Elizur, based on main motivational theories in the field (McClelland, Alderfer). There are motives of achievement, affiliation, power, and existence, growth (personal and professional growth).

In the case study, data, which formed the basis of research, were collected by interviews. However, the main purpose of the interviews was to gather qualitative data about people's motivation during the crisis. Each interview was semi-structured and guided to highlight each respondent's contribution to the topic. Interviews were conducted in two phases April 2005 (before crisis time) and January 2012 (during crisis). Each lasted approximately 30 minutes.

We focused on two companies operating in Athens (Greece) to examine their HRM responses to motivation during the Crisis time. The two companies, that were studied, were firms that focused on consulting services. Firm A associated with big projects of private sector, (especially Hotels, Luxurious Residents and malls) while firm B with Road and Bridge Project of Public Sector. They are consisted of Engineers especially Civil Engineers, a secretary and some drawing designers. A manager is responsible for Engineer Projects while the owners of the companies have the economic management. The firm A, before the crisis, occupied eight employees (7 Civil Engineers, 1 secretary) while firm B, nine employees (4 Civil Engineers, 1 secretary, 4 drawing designers)

The reduction in organizational headcount was the major concern during the crisis. Initial this was complemented by reductions especially in the payroll, with the freezing of increments, and then, with members of the organization taking pay cuts and a downsizing (about 50%).

Today in firm A are occupied five employees (4 Civil Engineers,1 secretary) and in firm B four employees (1 Civil Engineer ,1 secretary, 2 drawing designers).Across the crisis, it was observed that companies used multi-skilled employees (Civil Engineers or drawing designers) to cope with the Crisis. It is remarkable that the secretaries handle with the payrolls and the training budgets are cut.

8. ANALYSIS – RESULTS

The results of the research (2005) show that good manager, good incomes and interesting work, are the most significant motivation factors, in Greece. The population with "no work experience" place in the lower position "good manager" option, which shows that lack of experience did not give information about the importance of the manager in work place. "Job security" is in the last place for population who work in private sector, which is dynamic and in permanent restructuration.

At the age of crisis (2012), the hierarchy of the motives has completely changed. The most significant factor is the *Security of the job* and then, of course the *income*. No matter who is the manager, who are their colleagues, what is the job. The employee does just want a job and some money to survive (as they characteristically said, during the interviews).Table 2 presents the hierarchy of success in 'motivational drivers' before and during the crisis time.

Table 2: Motives in Greek Civil Engineers before and during the crisis time

	Greece 2005	Greece 2012
Interesting work	2	6
Accomplishments	5	7
Advancement in career	6	8
Personal recognition (self esteem)	7	9
Abilities used at work (properly)	8	10
Autonomy at work	9	5
Security of the job	10	1
Good manager (attentive and correct)	1	3
Good incomes	3	2
Good colleagues (agreeability)	4	4

Source: own research

9. CONCLUSION

The results of the research agree with Tobias (2006) which has the remark that "there can be no hierarchy of success in 'motivational drivers' (status, power, altruism, affinity, acquisition) as the individual's psychological pattern is complex and constantly evolving". We remarks that the hierarchy before and during the crisis has dramatically changed. The company's environment (managers, colleagues, interesting work) which before crisis was at the top the factors list, during the crisis are the variables with the less weight. The variable 'Security on the job' that is presented as a light variable became the most important motivation factor. Employees, first of all, want a permanent and secure job.

An interesting point of the research, during the period before crisis, is the role and place of "income" in this hierarchy. Gerhart (2005) get evidence studying the literature (before crises): when people are asked directly about the importance of pay, people tend to give it answers that place somewhere around fifth (range = second to eighth) in lists of potential

motivators. In contrast, meta-analytic studies of actual behaviours in response to motivational initiatives nearly always show pay to be the most effective motivator. At the crisis time the above factor is at the top of the list, as it can be seen in Table 2.

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I-DEALS AS A MODERN TOOL FOR HUMAN RESOURCE MANAGEMENT IN COMPETITIVE ORGANIZATIONS

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Summary: The article considers the problem of idiosyncratic deals (in short: i-deals) which can be regarded as a modern tool for personnel management. By their adaptation to the needs and working conditions, and their individualized nature, agreements of this type may become an effective way to attract, motivate and keep valuable employees in an organization. In this paper the author presents the results of her own empirical studies that show the scope, forms and consequences of such agreements in the practice of Polish organizations.

As a result, the research hypothesis has been confirmed, saying that despite the observable benefits of this type of solutions, they are not fully used in the practice of Polish enterprises.

Keywords: employment relations, i-deals, negotiations

1. INTRODUCTION

In today's rapidly changing environment, we must seek new ways to effectively manage human resources. To be able to fully exploit the potential of employees, conditions of employment must be matched to individual needs and expectations of employees, especially those who decide about a company's market dominance. This goal can be achieved through individualized, tailored contracts between an employee and an employer/supervisor. This customization can be obtained by means of negotiations between an employer and individual employees, which results in signing idiosyncratic deals (in short: i-deals). This article aims to show the benefits and costs and the extent to which i-deals are used in the practice of human resource management in Polish enterprises. The empirical perspective will show us how employees perceive these problems. The hypothesis assumed herein implies that, despite the perceived benefits of i-deals, they are not a fully used tool for human resource management.

2. THE ESSENCE AND CONCEPT OF I-DEALS

The concept of i-deals is relatively young, and it was popularized, among others, by D. M. Rousseau (2005) in his work: *I-Deals: Idiosyncratic Deals Employees Bargain for Themselves*. This and other studies in this area highlight the inevitable end of collective agreements and template, unilaterally imposed contracts between an employer and an employee represented by a supervisor. This is due to the unique nature of work performed by individual members of an organization (Hornung, Rousseau, Glaser, 2009, p 739). Taking steps to retain the most valuable, competent and highly skilled staff is in the interest of an organization – this can be done by adjusting the negotiated contract to the needs and expectations of an employee.

According to D.M. Rousseau, “*idiosyncrasy in employment is found wherever individual workers change their job titles, draft their own job descriptions, revise the ones they started with, or otherwise customize their duties, work hours, and their conditions of work*”. (Rousseau, 2005, p. 22). With such individualized treatment, there is a chance to keep an employee, while an employer can count on the stability of employment and greater loyalty

and commitment, and employees can hope for terms and conditions of employment that fit their current life situations and ambitions.

Several key elements distinguish i-deals from other forms of specific agreements (e.g. based on nepotism, favourability) between an employee and an employer. They are (Rousseau, Ho, Greenberg 2006, pp. 977-994):

- Individually negotiated: an agreement negotiated by an employee must be individually tailored and different from other contracts with other co-workers.
- Heterogeneous: in a similar group of employees, contracts must be differentiated e.g. in terms of benefits, formal and informal incentives, and rewards matching the level of work performed.
- Benefiting for both parties (employee and employer): for an organization a success is to attract, motivate and maintain valuable employees by means of individually and fairly matched stimuli, as they in turn engage in work and the organization.
- Varied in scope: from a single individualized element in agreement in larger standardized package of settlement to total idiosyncratic forms of deals.

A condition to establish favourable i-deals is negotiation skills of those who participate in talks and who should get rid of inhibitions due to fear of reporting requirements. Indeed, this inside brake often makes it impossible to start a dialogue and establish a mutually beneficial outcome (Kowalczyk, 2011, p 364).

Negotiated, individualized employment contracts are a chance to achieve satisfaction by employees, and they occur even in labour markets with quite a bit of reduced competition. This was noticed during studies conducted on German officials in Bavaria which proved that negotiating i-deals brings measurable results – working time flexibility helps reduce the work-family conflict and lower the number of overtime providing a degree of involvement in an organization. Negotiated conditions for professional development involve affective organizational commitment, increased conflict of work-family roles, greater expectations related to fulfilling job tasks and a greater number of overtime hours (Hornung, Rousseau, Glaser, 2008, pp. 655-664). Thus, i-deals are becoming both a necessity and an opportunity related to the new economy in the early twenty-first century. Without them, it is difficult to satisfy the increasingly conscious employees, conduct business and manage its resources, including one of the most valuable of them – people.

Hypothetical benefits and costs that may result from negotiating i-deals are presented in Table 1.

Table 1: I-deals: benefits and costs

Benefits	Costs
Outstanding commitment to work	Difficulties in balancing professional and personal roles
A sense of organizational commitment	Physical health disorders
Possibility of self-realization	Greater mental workload
Greater sense of security	Increased competition with other employees
Increased job satisfaction	Greater stress at work
Increased pay satisfaction	Greater burnout
Better atmosphere at work	
Increased self-esteem	
Professional competence development	
Better person-job fit	
Better person-organization fit	
Feeling a stronger connection between good work performance and rewards for it	

Source: own elaboration

The above items were subjected to empirical study the results of which are presented further in this article.

3. THE SCOPE AND FORMS OF I-DEALS AS HRM TOOLS

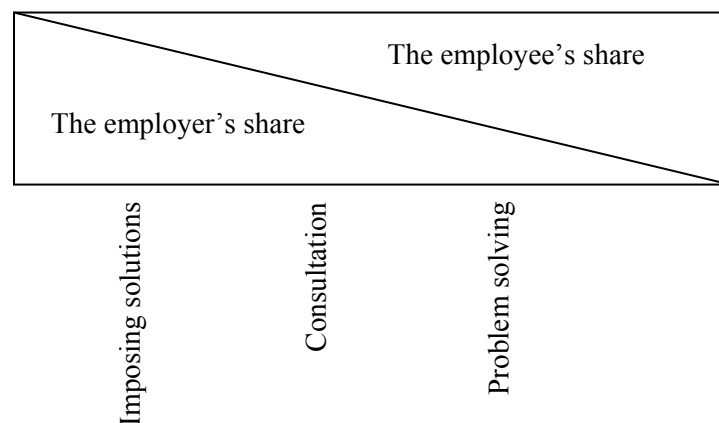
In a highly changeable environment, companies competing for employees, especially knowledge employees, should offer them new and attractive forms of cooperation, based on flexible forms of employment. This will make it possible to implement innovative personnel policy in an enterprise, as well as meet the needs of people employed in it and those who apply for a job (Kwiatkowski 2003, pp. 19-20; Dolny, Meller 1998, p.12).

The scope of i-deals may involve different forms of flexibility in the labour market which include:

- flexible working time – part-time, flexible, and variable working time (e.g. within a week, month);
- flexible wages – base pay, augmented pay (their value and mutual relationships) and cafeteria remuneration (bonuses most desired by an employee, selected from a list);
- qualification flexibility – the need to expand professional competence;
- occupational flexibility – the need to change occupation;
- workplace flexibility – teleworking, changing work environment, changing tasks within the same company, changing address, working in virtual enterprises (Kwiatkowski 2003, pp. 18-20; Auriga, 2005, pp.8-12; Strzemińska, 2003, p.130);
- Flexible forms of employment contracts (temporary, part-time civil-law contracts, self-employment, management contract) (Stojek-Siwińska, 2007, pp. 18-19; Labour Code, p. 41).

I-deals may also have different forms as both parties (employer and supervisor) may have a different impact, which is illustrated in Figure 1. Problem solving seems to be the most effective form of negotiation, while imposing solutions and taking the initiative may not fully satisfy the other party.

Figure 1: Forms of i-deals



Source: own elaboration

Negotiating individual parameters of contracts, which is reflected in the psychological contract, and the form of their negotiation determines the specifics of i-deals that will be gradually treated as a human resource management tool, enabling employers to compete for high-performance workers.

4. I-DEALS IN THE LIGHT OF THE RESULTS OF THE AUTHOR'S STUDIES

4.1. THE RESEARCH METHOD

The study was conducted in the first quarter of 2012, the survey was prepared in the electronic form and posted on the portal moje-ankiety.pl, and the link was passed for those who expressed a desire to participate in the study.

The study involved 212 people who were employed in the course of the study, or had been employed in the 12 preceding months. The gender structure of respondents was as follows: 41.5% (88 people) were male and 58.5% (124 people) were female. The mean age of respondents was 39.1 years; their job seniority was 7.9 years. Primary education – 0%, vocational education – 0.5% (1), secondary education – 9.4% (20), undergraduate higher education – 30.6% (65), higher education – 32.5% (69), postgraduate, doctoral education – 26.9% (57).

The size of companies by number of employees in which respondents were employed is presented in Table 2.

Table 2: The structure of respondents in terms of the size of their employers

Company size	Micro (1-9 persons)	Small (10-49 persons)	Medium (50-249 persons)	Large (250-999 persons)	Very large (1000 and more)
Percentage (number) of respondents	10.8 % (23)	25.0% (53)	23.1% (49)	22.2% (47)	18.9% (40)

Source: own study

This study involved persons occupying various positions in the organizational hierarchy, as shown in Table 3.

Table 3: The structure of respondents' positions

Respondent's position	Regular	Independent / specialist	Junior manager	Mid-level manager	Senior manager	Other
Percentage (number) of respondents	23.1% (49)	42.5 % (90)	9.0% (19)	9.0% (19)	10.3% (22)	6.1% (13)

Source: own study

Taking into account the education and positions of respondents, they are knowledge employees, or they aspire to become them in the coming time.

4.2. THE SCOPE, BENEFITS AND COSTS OF I-DEALS

The first issue addressed in the study concerned the incidence of individual, tailored negotiation between an employer and an employee, i.e. i-deals. Respondents reported that they were implemented in 60.8% (129) of cases and in 39.1% (83) they were not practiced. It is encouraging that the majority of respondents negotiate with their employers, actively shaping the employee-employer/supervisor relationship. At the same time, respondents specified the scope of these talks as high in 13.2% (28), average in 30.7% (65), small in 26.7% (57), and not occurring at all in 29.2% (62). Unfortunately, a "wide range of talks" is still available for the minority, but perhaps this is due to the lack of habit to negotiate agreements between an employee and a supervisor, but it is hoped that this situation will change favourably.

Because not only respondents themselves but also other people from their organization could carry out such talks, another issue touched this problem. Respondents reported that other persons from their professional environment held such talks in 34.4% (73), while in 18.9% (40) no such talks took place, and in 46.7% (99) they had no knowledge in this regard. This means that employees are reluctant to share information about opportunities to negotiate benefits, maybe guided by a competitive strategy to build their own careers, and the dissemination of such information may be assessed by them as threatening their potential profits.

Further questions were directed only to those who declared that they had conducted individualized negotiations on work, and based on it the form of these negotiations was established. Respondents had to choose from several options depicted in Table 4 and Figure 1.

Table 4. The nature of discussions between an employee and an employer/supervisor

What course did individualized negotiations on work take?	Percentage of respondents who held i-deals N=129
An employer/supervisor communicated his/her expectations and commitments, they were not subject to debate - "imposing solutions"	20.2% (26)
An employer/supervisor inquired about an employee's position and made an offer, which he/she announced, no further discussion occurred - "consultation"	20.2% (26)
An employer/supervisor asked about the position and needs of an employee, made an offer which they commonly discussed - "problem solving"	43.4% (56)
As suggested by an employer, an employee made his/her offer which he/she discussed with the employer/supervisor - "delegation"	6.2% (8)
An employee made an offer on his/her own initiative which he/she discussed with his/her employer/supervisor - "taking the initiative"	8.5% (11)
Other	1.6% (2)

Source: own study

As shown in Table 4 employers and employees discussing their expectations and needs seek to reconcile their positions through *problem solving* negotiations in less than half of the cases, unfortunately there is still this one-sided exchange of messages (called "*imposing solutions*") dominated by an employer/supervisor in a relatively small degree interested in feedback from his/her subordinates. How much better the shape of i-deals would be, if the parties could freely submit their discussion ideas, expectations and concerns? Perhaps, the time to reach an agreement would extend, but the satisfaction of the parties would be greater, and consequently the employer could rely on a greater loyalty and commitment of employees. It is really encouraging, however, that over 10% of respondents took over the initiative – preparing an offer of their own accord. This approach breaks the stereotype that it is a supervisor who should initiate such talks.

Another issue examined is the scope and problems discussed during i-deals. This is illustrated in Table 5.

As can be seen from the figures of Table 5., flexible working time and flexible pay enjoy the greatest popularity in the talks discussed, while the issues relating to professional competence development and working on the basis of flexible forms of employment contracts are less common as they occur in about ¼ of the cases. However, not all the potential opportunities faced by employers and associated with different forms of flexibility are used. As it has been previously mentioned, flexibility in its various forms and scope is a chance to improve the labour market position of different groups of employees, it allows them to enter the labour

market and gain experience, broaden skills, and therefore it is important to use its potential in building mutual employee-employer relationships.

Table 5. Issues discussed during negotiations between an employee and an employer/supervisor

Topics of the talks included:	Percentage (number) of respondents who held i-deals N=129 *
Flexible working hours - part time, flexible working hours, variable working hours (e.g. within a week, month)	39.5% (51)
Flexible remuneration (base pay, augmented pay – their value and mutual relationships)	41.9% (54)
Cafeteria remuneration - selected from a list of available bonuses, most desired by an employee	4.7% (6)
Qualification flexibility - the need to expand professional competence	25.6% (33)
Occupational flexibility - the need to change jobs	1.6% (2)
Flexible jobs - teleworking, changing work environment, changing tasks within the same company, changing address, working in virtual enterprises	11.6% (15)
Flexible forms of employment contracts (temporary, part-time civil-law contracts, self-employment, management contract)	25.6% (33)
None of the above	13.2% (17)
Other	2.3% (3)

*The results do not total 100% because respondents could choose more than one answer.

Source: own study

Then respondents were asked to specify the observed effects of individualized arrangements they had conducted with their own employers (i-deals).

Table 6. The effects of individualized discussions on work (i-deals)

According to respondents, their i-deals have resulted in:	I agree (4)	I rather agree (3)	I rather disagree (2)	I disagree (1)	Mean value
1. Above-average work involvement	27.9 (36)	39.5 (51)	19.4 (25)	13.2 (17)	2.82
2. Difficulties in balancing professional and personal roles	12.4 (16)	17.8 (23)	31.8 (41)	38.0 (49)	2.04
3. Physical health deterioration	6.2 (8)	13.2 (17)	20.2 (26)	60.5 (78)	1.65
4. Increased psychological stress	17.8 (23)	25.6 (33)	22.4 (29)	34.1 (44)	2.27
5. A sense of organizational commitment	20.9 (27)	50.4 (65)	17.8 (23)	10.9 (14)	2.81
6. Greater sense of security	17.1 (22)	51.2 (66)	24.0 (31)	7.8 (10)	2.78
7. The possibility of self-realization	31.0 (40)	45.0 (58)	19.4 (25)	4.7 (6)	3.02
8. Increased job satisfaction	30.2 (39)	44.2 (57)	20.9 (27)	4.7 (6)	3.00
9. Greater pay satisfaction	24.8 (32)	47.3 (61)	20.9 (27)	7.0 (9)	2.90
10. A better atmosphere at work	18.6 (24)	42.6 (55)	29.4 (38)	9.3 (12)	2.71
11. Professional competence development	26.3 (34)	45.7 (59)	19.4 (25)	8.5 (11)	2.90
12. Increased competition with other employees	12.4 (16)	20.2 (26)	36.4 (47)	31.0 (40)	2.14
13. Higher self-esteem	24.8 (32)	48.1 (62)	21.7 (28)	5.4 (7)	2.92

The categorical results from the columns were converted to point values based on which the mean value for each row was calculated.

Source: own study

As the data in Table 6 and show, the greatest impact of individualized employment contracts is reported in such aspects of an employee's functioning (25% of top results) as the possibility of self-realization, greater job satisfaction and higher self-esteem. The lowest effect was observed in such areas (25% of lower results in the group) as physical health deterioration and difficulty in balancing professional and personal roles, and competition between employees. Employees who negotiated individualized working conditions are more satisfied with it, they may feel more professionally fulfilled and are more confident of their competence which they may develop. What is more, they do not feel negative physical symptoms, and the negotiated arrangement allows them to fulfil both their professional and non-professional roles. It can be assumed that their quality of life is better.

In addition to the effects resulting from i-deals observed by respondents, the conviction about the potential effects that may result from such agreements is also important. All respondents referred to it, both those who conducted such arrangements, as well as those who did not have this chance.

Table 7 Beliefs about the potential effects resulting from negotiating i-deals

Potential effects arising from the possession of i-deals may be as follows:	I agree (4)	I rather agree (3)	I rather disagree (2)	I disagree (1)	Mean value
1. Greater employee work involvement	59.4 (126)	37.7 (80)	1.9 (4)	0.9 (2)	3.56
2. Greater employee commitment to an organization	51.4 (109)	42.9 (91)	4.7 (10)	0.9 (2)	3.48
3. A better atmosphere at work	44.8 (95)	40.5 (86)	11.8 (25)	2.8 (6)	3.27
4. Greater competition between employees	19.3 (41)	28.8 (61)	43.9 (93)	8.0 (17)	2.59
5. Greater competition between employers	19.3 (41)	44.8 (95)	30.2 (64)	5.7 (12)	2.78
6. Greater stress at work	10.8 (23)	21.7 (46)	47.6 (101)	19.8 (42)	2.24
7. Greater sense of security	31.1 (66)	51.4 (109)	15.1 (32)	2.4 (5)	2.80
8. Better person-job fit	49.5 (105)	42.9 (91)	7.1 (15)	0.5 (1)	3.42
9. Better person-organization fit	45.3 (96)	46.2 (98)	7.1 (15)	1.4 (3)	3.35
10. Larger conflict of professional and personal roles	6.1 (13)	16.5 (35)	50.5 (107)	26.9 (57)	2.02
11. Greater burnout	5.2 (11)	14.6 (31)	48.1 (102)	32.1 (68)	1.93
12. Mental health improvement	17.5 (37)	54.2 (115)	21.7 (46)	6.6 (14)	2.83
13. Physical health improvement	10.8 (23)	46.7 (99)	29.2 (66)	13.2 (28)	2.59
14. Feeling a stronger connection between good work performance and rewards for it.	40.1 (85)	48.1 (102)	9.4 (20)	2.4 (5)	3.26

The categorical results from the columns were converted to point values based on which the mean value for each row was calculated.

Source: own study

As the data in Table 7 and show the most anticipated results arising from individualized employment agreements (25% of top responses) are greater employee work involvement, greater attachment to an organization, and better person-job and organization fit. However, among the least expected effects of i-deals (25% of the lower responses) are higher burnout, conflict of the work-life roles and greater stress. Thus, in their opinion, i-deals give rise to potentially positive consequences for both employees and an organization which employs them. Because they are so much beneficial in the opinion of those who held them and the

other respondents, this valuable tool for effective human resource management should be used to a greater extent, and not wasted, which is happening in 40% of cases.

5. CONCLUSION

The study shows that under the assumed hypothesis, despite the clear benefits resulting from i-deals, they are not fully used in the business practice in terms of their frequency, scope and form. At the same time the most important benefits, those perceived and potential, arising from the negotiation of i-deals mentioned by respondents are: the possibility of self-fulfilment, greater job satisfaction and higher self-esteem, greater employee involvement in work, greater attachment to an organization, and better person-job and organization fit. However, assumptions about the perceived risks associated with those agreements have not been confirmed. Taking these facts into account, we can assume that i-deals will gain significance and will be more often used in the coming years, as they are an effective tool for shaping the employer-employee relationships based on flexibility which is an irreversible trend observed in the contemporary labour market.

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**THE DICHOTOMY BETWEEN ‘INNOVATIVE’ LEADERSHIP AND
‘BUREAUCRATIC’ MANAGEMENT IN THE POST-SOVIET CONTEXT: THE
CASE OF NORDIC MANUFACTURING COMPANIES IN RUSSIA**

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Summary: This research conducted at Nordic-owned Russian factories asserts that foreign managements have certain latitude to choose their leadership style, although the post-Soviet context, factory size and the scale of investment (small-scale vs. large-scale) set constraints for HR management. The sample consists of seven factories, the number of employees of which ranges from 30 to 1200. It is observed that especially in case of acquisitions or brownfield investments; the Soviet organizational ‘imprint’ plays a decisive role as regards managerial orientation towards either ‘innovative’ leadership or ‘bureaucratic’ management. In factories having Soviet background (in terms of human resources or location) and of a larger size, a Nordic-type ‘incorporation participation’ or Soviet-style ‘welfare participation’ model was more likely to be applied, but more or less bureaucratic management prevails. On the other hand, at smaller workshops, there was a peril that innovative leadership turns out to resemble Soviet-type paternalism. There was neither pure occurrence of innovative leadership nor bureaucratic management among the case studies, which leads to a conclusion that the style adopted by Nordic managements is a hybrid of both innovative and bureaucratic styles.

Keywords: Bureaucratic management, HRM, innovative leadership, Nordic firms, Russia

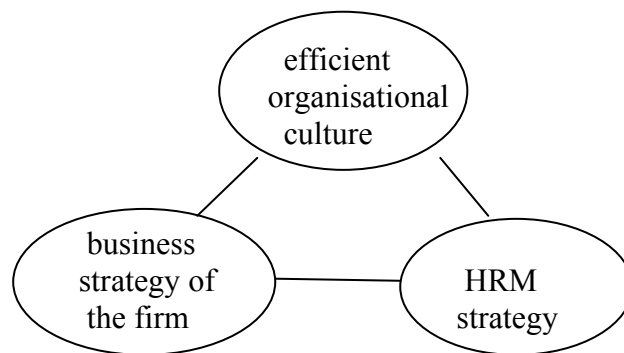
1. INTRODUCTION

The term *innovative leadership* comes from V.I. Maslov’s (2010) view of the desirable developmental direction of Russian management where there is a threat that the Russian production machinery will undergo stagnation. There is the spectre of the return to ‘bureaucratic’ Soviet production model. To achieve higher productivity, the Russian authorities focus besides on necessary technical/economic changes also on the social aspect of politics of innovation. In 2008, the Russian government approved the Conception of Social-Economic Development until 2010, where emphasis is put on the transition to “innovative socially oriented type of economic development” (Ustinkin and Samsonov, 2010). Therefore the heuristic concept of ‘innovative leadership’ refers to the desirable outcome of management in order to maintain and enhance productivity in the framework of a national system of innovation (on the concept, see Freeman 1995).

When attempting to achieve such goals of politics of innovation by means of enterprise-level management, one has to consider the relationship between business strategy and human resource management (HRM). This is what the concept of *strategic HRM* stands for. Roughly said, strategic HRM means that management of human resources is aligned to the business objectives of the firm (Boxall and Purcell, 2003, p. 47). Strategic management is also related to employee involvement and participation in decision-making in the company. According to Croucher, Gooderham and Parry (2006), “...strategic HRM aims to achieve strategically anchored employee involvement through High Involvement Management (HIM) techniques”. Among other features, direct communication practices are seen as one of the key characteristics of HIM (ibid.).

If we consider strategic HRM, we are in fact talking about a following triangle:

Figure 1: The alignment of business strategy and HRM



Source: Maslov 2010

According to Maslov (2010), contemporary Russian work organizations are based on bureaucratic, even military models of management, which prevents innovation from blossoming. Such a bureaucracy also obstructs the management the access to tacit and realistic information, traditionally only in possession of the employees, about the internal situation of the company. Maslov (ibid.) argues that Russian strategic HRM should be more oriented towards teasing out innovations especially in such strategically important sectors as biotechnology, communications, space applications and artificially intelligent systems. He also underscores the resolving of problems of innovation at all levels of the enterprise by means of employee involvement. The most feasible way to complete this task is to focus on human capital and the development of ‘participative’ management. Accordingly, in this paper, we propose an ideal-type distinction between two types of leadership-management: an ‘innovative’ leadership approach and ‘bureaucratic’ management approach to HRM. While a traditional firm seeks to do things bigger and better, an innovative firm seeks to do new and different things.

Maslov (ibid.) defines the traditional ‘technocratic’ corporate culture in terms of hierarchic, rigid subordination, the prevalence of regulated, executive behaviour, rational-economic motivation and narrow specialization of administrative bodies and functionaries. In contrast to technocracy, innovative leadership pursues for horizontal relationships, orientation to the employee, stimuli through final results and mutually defined goals. Pretty much along the same lines, Pardey (2007, p. 209) enumerates open communications, reward systems (not necessarily financial ones), individual autonomy and the role model of senior managers as mechanisms to put creative solutions to problems into action. Although Maslov (2010) has mainly had ‘intelligent’ work in mind while sketching out his innovative leadership model, the concept is here extended to HRM in all sectors, since it also coincides with Nordic leadership styles.

2. NORDIC LEADERSHIP STYLES AND PARTICIPATORY SCHEMES

The ‘Nordic cluster’ consisting of Denmark, Finland and Sweden constitutes or a distinctive entity in terms of Global Culturally Endorsed Implicit Leadership (CLT) dimensions (Dorfman, Hanges and Brodbeck, 2004, p. 690), where the effective Nordic leadership style exhibits high levels of Charismatic/Value-Based leadership, Team Oriented leadership and a considerable level of Participative leadership. By contrast, the scores of Humane-Oriented and

Self-Protective leadership are low (ibid.). There is considerable tolerance of Autonomous leadership in the Nordic societies (Chhokar, Bordbeck and House, 2007, p. 31). However, there are some differences in how Human Oriented leadership is enacted: personal sensitivity and development support are seen the main means of achieving Human Oriented leadership in Finland, whereas in Sweden, it is the egalitarian emphasis through which individual autonomy is approached and thus Human Oriented leadership achieved (ibid.).

The issues of leadership and employee participation are intertwined. In the case of organisational change, especially direct forms of participation can play a key role in ensuring acceptance of change and in creating the conditions for employees to make effective contributions to their organisations (O'Brien, 2002). Russian enterprises have undergone an enormous change from state socialism to capitalism. However, there has not been a "normal" organisational change as regards Russian work organisations: autarkic top-down methods characteristic of the Soviet era must have been replaced by more "soft" management styles encountered more often in democratic societies. Here, the Nordic firms have a key role to play – to introduce more "empowering" leadership into the Russian subsidiaries. Once a true model transfer occurs from the Nordic to Baltic countries, subsidiaries are involved in the *incorporation participation*, that is, incorporation of the trade union (or representative structures in general) in the long-term strategy of the firm in circumstances where a tight labour market is accompanied with a competitive product market (Ackers, Marchington, Wilkinson and Goodman, 1992).

For Nordic management, starting production in the post-Soviet countries poses challenges for getting rid of "management Sovieticus" (Liuhto, 1993) and the legitimation of the state-of-the-art management of the new era. It is argued that the Soviet management was corrupt and ineffective compared to that of the market economy, and the whole idea of management required renewal. The transfer from socialist enterprise management to capitalist one has been occurring gradually. In place of production focus, characterised by little interest in financial and personnel functions, in post-Soviet enterprises attention had to be paid to sales, supply and finance (see Clarke, 2004).

It is hypothesized that the Soviet model of employee participation resembles *welfare participation* (Knudsen 1995, 11), where employee participation in decision-making concerns mainly welfare issues. Such issues are company-specific welfare arrangements, canteen facilities, housing facilities, sports and other recreational activities, scholarships, and other forms of financial support different from the ordinary remuneration (ibid.). In other words, if this form of employee participation is not accompanied by any other form (in strategic, tactical or operational issues), employee involvement is rather narrow in scope. However, welfare participation corresponds pretty well to the functions of a state socialist trade union that served rather as a distributor and administrator of social insurance, social facilities and commodities for workers (see e.g. Clarke and Fairbrother, 1993, p. 94).

An analysis of Nordic-owned metalworking, food processing and construction material factories in the Baltic States (Sippola, 2010) exhibits a wide variety of approaches to coping with the complex management tasks in the post-socialist context with little reference to 'Nordic-type' consultation, co-operation and delegation of decisions with subordinates, analogous of consideration leadership behaviour. The subsidiaries having a carry over of employment practices from the Soviet time are more likely to be involved in Nordic-type 'incorporation participation' (utilising indirect participation). The lack of indirect participation at the greenfield factories is to some extent compensated by market, HRM or task participation forms. Correspondingly, the Nordic managers seemingly prioritise business objectives at the expense of employee participation, while the leadership style adopted at the

Baltic subsidiaries reflects ‘initiating structure’ type of leadership rather than consideration leadership behaviour.

3. DATA

All the case study companies are located in the western part of Russia. The fieldwork was carried out in 2011. There were two Danish, three Finnish, one Norwegian and one Swedish company in the sample. Basic information of these subsidiaries is seen in table 1.

Table 1: Basic information on the enterprises researched

	<i>Stroy-material</i>	<i>Derevo</i>	<i>Himstroy</i>	<i>Agrotehnika</i>	<i>Mashina</i>	<i>Stal</i>	<i>Provod</i>
<i>sector</i>	construction material	construction material	construction material	metal	metal	metal	metal
<i>market orientation</i>	local market	Europe	local market	local (FSU) market	local market	local market	Europe
<i>mode of entry</i>	brown-field	joint venture → acquisition	greenfield/acquisition	brown-field	brown-field	brown-field	brown-field
<i>established / acquired</i>	mid 1990s	1990	1995/1996	2005	2002	1993	1992
<i>scale of investment</i>	large	large	large	small	small (in the current premises)	small	large
<i>workers</i>	500	600	250 (unit 1) / 600 (unit 2)	40	70	70	900
<i>union members</i>	130	350	150	-	-	-	almost 400
<i>trade union or other representation</i>	trade union	trade union	trade union	-	-	elected EICF* representative	TU (chair-person, vice chair + committee)
<i>collective agreement</i>	yes	yes	no	no	no	no	yes

* European Information and Consultation Forum (the company’s own)

Himstroy consists of two different production units within the boundaries of one of the biggest cities in Russia. Unit 1 has been established as a greenfield project in 1995, and the Nordic owner acquired unit 2 (which itself had been established as a greenfield project ten years before) in 2006. *Derevo* was established in 1990 as a joint venture with a Russian partner. The Nordic owner acquired it entirely in 1995. 80 percent of its production is exported to European countries. *Stroymaterial* is a brownfield factory, established in mid 1990s on the site of a former Soviet construction materials plant producing products of similar type as *Stroymaterial* does nowadays. *Agrotehnika*’s production started at rented premises in a special economic zone in 2006, but it moved to current site in 2010. Operating in the metalworking sector, it found better qualified labour and logistics position on the current site.

Mashina's business concept relies besides on high-quality products, also a comprehensive service and supply network throughout the country. Founded in 2002, it provided a different type of vehicles than it does nowadays; in 2010, when it established new production in rented premises on a different site, it brought some of the previous labour onto the new site. Although *Stal* has operated in Russia in different premises since its establishment in 1993, some of the originally hired workers have followed it to the current site. Part of the production of standardised metal products is currently under disinvestment, part of it under re-investment. *Provod* is a brownfield factory, history of which dates back to 1992. It was further sold to current owner in 2003. The work at the factory consists of cutting (males) and composition (females) of standardized products.

4. LEADERSHIP STYLE AND EMPLOYEE PARTICIPATION AT THE FIRMS

At **Himstroy**'s unit 1, a trade union established as an independent organization had deliberately assumed an aggressive stance against the employer, and the action of the union had been destructive to the company during the 2000s. The trade union in question was not involved in attestation of jobs, and the idea was obviously to marginalize this union for the favour of another union, which held a strong position at the unit 2. The union at the unit 2 was consulted in work organization related issues (e.g. the new pay system). There was no collective agreement at Himstroy, although the management was going to start a negotiation process. Such a partnership did not, however, bring forth any ultimate benefit for the union, since it was also by-passed in work-related consultation. In 2010, Himstroy's management initiated bimonthly / quarterly consultation meetings with those production workers who do not belong to trade union. In addition to this, there was an annual information event for all employees, which was going to be arranged quarterly. One might argue, therefore, that the employee-management relations at Himstroy had developed from openly adversarial to more co-operative. The diversified HR management strategies between the two units apparently derive from different sizes (unit 1 has 250 employees while unit 2 has 600) and from the management's desire to define industrial relations on the shop floor to their own liking (the marginalization of the trade union at unit 1).

Derevo's production process was undergoing modernisation during the time of the interviews, although it still remained highly hierarchical. The work organization was traditional; there were 400 employees in the production, of which 20 were supervisors. The modernization meant that the number of employees was slightly decreasing and the work itself was intensifying. There was trade union and a collective negotiation committee in operation at Derevo, in a manner it does in the Nordic 'bargained constitutionalist' environment. The committee consisted of five members from the management and five members from the trade union. A representative of the management mentioned that they had to agree with the trade union upon some measures, such as during the crisis they had to agree on reduced working hours. There was a suggestion box for the initiatives of the workers, which is however little used. The management organised meetings with the whole workforce occasionally, and further *ad hoc* meetings with groups of workers. Such an approach to employee relations resembled Nordic-type participative management, which in the Russian context is 'innovative'. However, the work organization itself remained bureaucratic.

At **Stroymaterial**, there was besides a small trade union, also a small committee established not a long time ago that discussed welfare issues such as the functioning of the canteen. It consisted of employees, union and management representatives. The management discussed mainly work-related issues with the union. One example of such issue had been a change in working schedule in one production section. There was a collective agreement signed in the

factory for two years period at a time. Although wages were negotiated with the union, the management had the right to give individual bonuses in addition to the minimum tariffs. While consultation with union seems to be more or less commonplace, the union's real room to negotiate on important issues such as wages appeared to be restricted. A big factory as Derevo and Himstroy, Stroymaterial had a rather traditional management style in place, accompanied by some Nordic features of participative management.

Agrotehnika is a small investment of a Nordic company, operating in the metalworking sector. At the moment of the interviews, the premises underwent installations of new equipment, and full production was about to start in 2011 or 2012. Majority of the installation was carried out by the company's own employees. Due to the move from the old premises and the construction of the new ones, the number of personnel at Agrotehnika was very low, only about 30 persons. The employment figure was about to grow steadily once the composition process has been set up. The production is organized around a team, which made of one shift. As another production process will start its operation, there will be competition between the production teams (one team represents one product) in terms of performance, quality, cleanness, safety and discipline. On the other hand, large autonomy was allowed to the teams in terms of work organization related budget: the teams would be provided with some budgetary means for their own use. The organization of work followed the '5S' model, adopted from a West European sister unit. There was a mutual one to two hours meeting every week on work-related issues, where managers and employees got together. The general director devoted a lot of his time for the running of the production while simultaneously maintained a paternalist management style characteristic of such small-scale engineering shop. All in all, the leadership style was really 'innovative' against Russian and even against Nordic backdrop.

Mashina's production stages were to a high degree standardised, which left employees little room for improvisation or discretion. However, in the spirit of continuous improvement, employees' suggestions were encouraged as regards improvements in the process, work safety or ergonomics. The managing director gave a twenty minutes talk to all the staff every second week concerning the future prospects, market situation and employment situation in the factory. There was no trade union at the factory. As regards management style at Mashina, some clues can be discerned about it in the attitude toward the labour force on one hand, and in the managerial talk. The production manager emphasized that there is a difference in productivity between a Nordic production unit and Mashina, which is due to lower investment levels at the Russian factory. However, wages of the core workers were relatively good in the Russian context. Moreover, the way the managing director spoke of trust between the management and employees and the procedure of the recruitment process hint at some sort of paternalism in this factory. He insisted in the mutuality of keeping one's promises (concerning both the employer and employees) and a close scrutiny of workers to be hired. In the process of recruiting (which was performed through a labour agency in the first place) and workplace learning, the 'bad' and unmotivated workers leave and the 'good' and committed workers remain. Although there were some signs of paternalist managerial style, in the Russian environment the leadership style could be characterized as 'innovative', which was mainly due to the small-step policy of investments and the small size of the factory for the time being.

One of **Stal's** departments, which is producing a more traditional and standardised product, was currently undergoing disinvestment. Another, however, was in the process of reinvestment, and the whole factory was subject to optimisation activities for reducing complexity and prices. There was no trade union neither any other employee representation system at Stal. However, there was an elected representative from Stal for the company's

European Information and Consultation Forum (EICF). In terms of management style, it was obvious that there are some features of paternalism at Stal, although there was a strong emphasis on a Nordic-type participatory management. An interviewed manager underscored the openness of the corporate culture, where the management tries to listen to the employees and to enter into dialogue with them. Involvement and commitment of workers was mainly sought to be reached by means of continuous improvement, which implies employee participation in production-related issues. For the blue-collar workers, company goals were not promoted by individual performance-based pay schemes but instead occasional bonuses and non-monetary rewards are promoted. There was an extra allowance and medical insurance (not very extensive) for retired workers, which is ‘means-tested’ in a way that one has to have completed a ten-year blameless career at the company. Such a paternalist style – which indeed has analogies with the Soviet labour process – would prove unsustainable in case the number of workers will increase and this medium-sized engineering shop will grow into a larger factory.

Provod had recently introduced a quality control system where in each month, the department chief held personal development talks and evaluated the subordinate's performance based on a set of quality indicators. The goal of closer monitoring was to optimise the labour process, which would result in intensification of work. There was a trade union at Provod, and a collective agreement. The management director had a monthly meeting with the trade union chairperson. Also, the HR manager has daily communication with the union chair. Employee relations have changed from adversarial to more co-operative during latest years. For example, the number of the workers’ complaints to the labour inspectorate has decreased sharply, where the management and employee representatives have managed to resolve problems within the company. The trade union was more militant in the beginning stage, when it was established in 2003. According to a representative of management, the chairperson of the union sought more conflicts and not compromises with the directors. The collective agreement was one of the most comprehensive ones, including e.g. wage tariffs and grounds for bonus schemes (which is a rarity among the case study companies). One might conclude, therefore, that the management style at Provod was nearest to ‘bargained constitutionalism’. It remains to be seen, however, whether the style turns into true partnership or traditional style in the future.

5. CONCLUSION

It was found that Nordic managers have certain latitude to choose their leadership style, although factory size and the scale of investment (small-scale vs. large-scale) set constraints for Nordic HRM in Russia. It is evidenced that especially in case of acquisitions or brownfield investments, there is some hold-over from the Soviet organization of work. This is key to whether managements opt for the ‘innovative’ or ‘bureaucratic’ leadership style. In factories having Soviet background in terms of human resources or location and of a larger size (Derevo, Himstroy, Provod and Stroymaterial), a Nordic-type ‘incorporation participation’ or Soviet-style ‘welfare participation’ model was more likely to be applied, although however more or less bureaucratic management prevails. On the other hand at smaller workshops (Agrotehnika, Mashina and Stal), there was a peril that innovative leadership turns out to resemble (also Soviet-type) paternalism. There was neither an occurrence of innovative leadership nor bureaucratic management among the case studies, which leads to a conclusion that the style adopted by Nordic managements takes rather a hybrid form involving both innovative and bureaucratic styles.

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INCREASING THE VALUE OF INTELLECTUAL CAPITAL AS A RESULT OF USING RELATIONS BETWEEN ITS COMPONENTS

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Summary: The paper presents results of research on the relationship existing between the components of intellectual capital. The starting point was the analysis of current views on intellectual capital presented in the literature. Taking into account basic priorities of research, and therefore need to examine the relationship between individual components and to determine the possibility of improving the intellectual capital management techniques, it was decided that the basis of the method will be clarified and expanded a three-part literature model, which consists of structural capital, human and relational. The individual components are detailed subareas characterize the essential functions of the company with a key importance for the state of intellectual capital in the enterprise.

Keywords: intellectual capital, human resources, knowledge management

1. INTRODUCTION

Demands on contemporary enterprises are increasingly high and encompass the even wider range of areas. Contemporary enterprises are required to participate in the development of local societies, to be responsible for the state of the region and the country, and to care for the natural environment, the employees, social benefit packages, etc. The relations between contemporary enterprises and their environment are very complex and variable in time due to the turbulent nature of the market. The consequence of the change in the relationship between an enterprise and its environment is the need for introducing new methods of managing organizations. The rush towards new solutions increases the role the human factor and intangible resources, in general. As Wriston stated (Wriston, 1992), a new source of values is not material; it is the information and knowledge put in the work that is used to create the values. Intellectual capital and knowledge become the basic sources for building competitive advantage. These elements are not, however, easy to be measured, described and characterized. Knowledge has a number of features that distinguish it from among all the other resources of an enterprise. The following should be primarily pointed out here (Karwowski 2004:13):

- intangible knowledge that is difficult to measure,
- unstable knowledge that may disappear at any time,
- knowledge, in most cases, is embedded in the minds of employees who have the freedom of will,
- knowledge is not used up, but in the opposite, it increases as it is used,
- knowledge cannot be bought at any time, and often requires a long time to be collected, and
- knowledge cannot be used by different processes at a time.

According to the common view, knowledge becomes a priority productive factor and an important determinant of technological progress. This view is confirmed, for instance, by the successes of the knowledge-based economy, where (Garbryś, 2001: 73):

- knowledge constitutes the most valuable resource,

- the highest competitive potential is possessed by products whose main component is knowledge,
- from among all production factors, human capital undergoes the largest changes.

The largest added value is created by companies investing into human capital and able to effectively use external knowledge sources.

Knowledge constitutes not only an organization's resource, but also its product. However, an enterprise, as such, has no possibility of creating knowledge. As stated by J. Baruk, knowledge forms as a result of mental activities performed by each individual; therefore, its primary source is a human (Baruk, 2001). S. Forlicz, on the other hand, defines knowledge as a set of data about the surrounding world, which is collected by an individual (Forlicz, 2008: 13). An enterprise has, however, the capability to actively influence the shape and scope of knowledge and does this through assuring its employees the appropriate working conditions. Nonaka and H. Takeuchi point out to the fact that knowledge is created by information which, in turn, is a stream of data which provides a basis for creating a new knowledge, that is its further expanding (Nonaka and Takeuchi, 2000: 95). At the same time, they divide the organizational knowledge into three basic categories:

- the personalized core of knowledge (explicit and implicit knowledge),
- the codified knowledge (documentation, reports, publications, databases, designs), and
- the established applied knowledge (processes, services, products, relations, technologies).

Closely related with the concept of knowledge and knowledge management in an enterprise is the intellectual capital. Olsson is stating that intellectual capital is created by knowledge and skills that individual employees contribute to the enterprise (Olsson, 1998). A broader conceptualization, though generally in the same interpretative domain, can be found in the studies by Ulrich who perceives intellectual capital as being identified with the enterprise and the competencies of its employees, which are expressed through their way of thinking and working (Ulrich, 1998). This author provides even a ready equation to describe intellectual capital, whereby the intellectual capital is the product of competency and motivation.

The approach to intellectual capital prevailing in the literature distinguishes, however, this concept from knowledge, while making the latter – incidentally, similarly as for human capital – just one of the components. As Stewart states (Stewart, 2001), intellectual capital is knowledge that enables raw material to be transformed into a more valuable one, thus allowing a specific financial value to be gained. The components of this capital are human capital (talents), structural capital (methodology, intellectual property, software, documentation, etc.), and customer capital (relations with customers). Stewart clearly details three basic components of the intellectual capital, which can be classified into two groups: internal and external. Bukowitz and Williams perceive intellectual capital as the relationship between human capital, customer capital and organizational capital, which maximizes the organization's potential for creating a value (Bukowitz and Williams, 2000:223).

By subjecting the research results reported in the relevant literature to analysis it can be easily concluded that the consistent approach to intellectual capital is still missing. Individual authors present their visions and view, but there is no general agreement on what the intellectual capital is and how it influences the performance of an enterprise. Nor relationships between intellectual capital and other enterprise asset components - even so seemingly obvious factors as human capital – are indicated.

One of the basic problems related to intellectual capital is the issue of reliable methods for its evaluation. The difficulties in examining intellectual capital are associated with the features that characterize it. As Rowińska-Fronczek states (Rowińska-Fronczek 2003: 129) intellectual capital is characterized by:

- an immaterial form,
 - non-measurability,
 - uncountability,
 - not allowing itself to be subjected to accounting appraisal,
 - not undergoing wear,
- possible to be simultaneously used at many places and for different purposes.

2. ANALYSIS OF THE RESULTS

For achieving the basic goal of the study, the author's research method was used, which serves for the evaluation and development of the intellectual capital of an enterprise. Considering the fundamental priorities of the research, there is the need for examining the relationships between individual components and determining the possibilities (resulting from those relationships) for improving the intellectual capital management techniques. It was decided, that the base of the method would be the expanded three-part model, recognized in the literature, made up of structural capital, human capital and relational capital. Within individual components, sub-areas were identified, which characterized significant enterprise functions of key importance to the state of intellectual capital in the enterprise. As a result of multiple test studies carried out, the author ultimately decided to adopt nine sub-areas, because this variant assured, on the one hand, the required detail of the research and, on the other hand, did not lead to generating excessively large sets of values that would be difficult interpret and would result in drawing unclear conclusions. The intellectual capital structure assumed for the purposes of the research was as follows:

- human capital: the area of competencies, the effectiveness of human capital management, the sphere of human resources;
- structural capital: the sphere of investments in development, the effectiveness of administration, the quality of carrying out processes;
- the sphere of market relations: the assessment of the market situation, the effectiveness of conducted activity, the customer relation area.

It was assumed that the most appropriate format for expressing individual sub-areas would be percentage values. This assures high transparency of data and the ease of data interpretation, and enables the actual state of individual spheres to be readily determined. Achieving this goal was possible thanks to the created sets of elementary indicators, whose average value was used for describing the individual sub-areas. Within the human capital sphere 23 indicators were distinguished the structural capital sphere was described using 20 indicators and the sphere of market relations was described using 21 indicators.

Based on the assumed set of indicators, a sample of 70 enterprises was tested. The results of this stage of analysis made it possible to examine the extent of relationship between individual spheres, as determined using Pearson's correlation coefficient. The aim of this operation was to examine possible relationships and interactions that might provide the basis for the process of inference, as well as the detailed analysis of the intellectual capital structure. The calculated correlation coefficients are presented in Table 1.

From the obtained results it was found that, relationships occurred not only between the elementary components making up the three main spheres of intellectual capital, but also between the components representing different areas. A vast majority of the relationships found had, however, an unclear nature. All of the areas subjected to analysis have a positive effect on size of enterprise performance effects. Their improvement leads to higher effectiveness in carrying out processes in the enterprise due to a reduction in staff fluctuation, an increase in customer satisfaction, better selection of the means of promotion, etc. So,

relationships between individual components do exist, though, in many aspects, it is hard to precisely describe the mechanisms or causal relationships that drive them, due to their unclear character.

Table 1. Summary of correlation indices for the adopted components of intellectual capital.

<i>Sphere</i>	<i>Sub-area</i>	Area of competencies	State of human resources	Effectiveness of human capital management	Sphere of investment in development	Effectiveness of administration	Quality of carrying out processes	Assessment of the market situation	Effectiveness of conducted activity	Customer relation area
Human capital sphere	Area of competencies	1,00								
	State of human resources	0,51	1,00							
	Effectiveness of human capital management	0,16	0,45	1,00						
Structural capital sphere	Sphere of investments in development	0,20	0,30	0,48	1,00					
	Effectiveness of administration	0,05	0,23	0,34	0,41	1,00				
	Quality of carrying out processes	0,06	0,32	0,03	0,07	0,35	1,00			
Market relations sphere	Assessment of the market situation	0,20	0,04	0,13	0,07	0,29	0,47	1,00		
	Effectiveness of conducted activity	0,21	0,05	0,06	0,15	0,21	0,27	0,47	1,00	
	Customer relation area	0,29	0,13	0,06	0,10	0,05	0,10	0,05	0,41	1,00

Source: The author's study

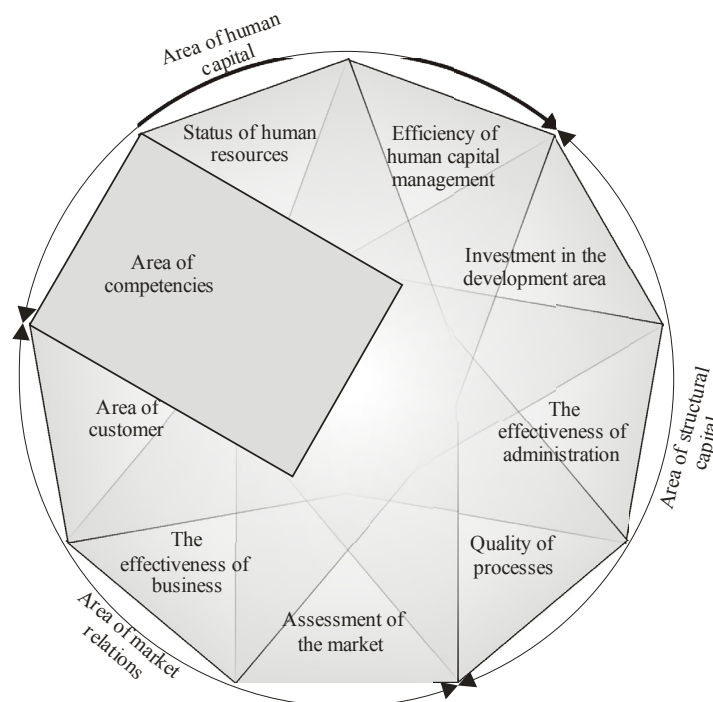
From the point of view of the research goal undertaken, particularly interesting are relationships occurring between components representing different areas of intellectual capital. Indeed, these show an additional potential for searching for the synergic effect within the enterprise management processes. Particularly distinct relationships were found to exist between the sphere of investments in development and the effectiveness of human capital management, as well as between the quality of carrying out processes and the assessment of the market situation. In the latter case, the attempt to explain the causes of this state is, to some extent, easier. The more efficient carrying out of processes leads to a better customer service and minimizing the losses due to the small number of defects, which results in more complete meeting the key success factors, increasing the competitive advantage and greater resistance to the adverse influence of the substitute product sector. The mechanism relating the effectiveness of human capital management to the sphere of investments seems to be more complex. The causes of its existence can be searched for in two main areas. First, in good management. Its consequence is undertaking broad planning and investment activities, as well as deep understanding of the role and tasks of the human factor. Achieving satisfactory financial results requires the proper carrying out of tasks within all management areas. The second likely cause is a mechanism, whereby the competencies of employees are, so to speak, "pulled" by the developing technology and organizational solutions. For example, newer manufacturing methods may require people with a wider range of knowledge and appropriate experience allowing them to efficiently use the enterprise's resources made available to them.

So, intensively growing enterprises are, in a sense, "compelled" to care about the state of possessed human resources.

The identified relationships between the examined components allowed a discussion on the structure of intellectual capital to be taken up. Intellectual capital is a kind of conglomerate, being made up of different, often apparently mismatched or unrelated elements. The effectiveness of its use is determined by the relationships between those elements, and actually the ability to identify and utilize them. It is these relationships that determine the level of an enterprise's performance level, its market position, and the existence or non-existence of competitive advantage. They allow better and fuller understanding of the notion of intellectual capital, the integration of the concept of its management with the strategic bases of the enterprise's existence. Finally, it is their existence that makes it possible to discern the effects of using the intellectual capital, and thus to reduce the level of its abstractness and to see its practical dimension. By the identification of these relationships, areas with interactions were indicated. So, the potential for intensifying the intellectual capital by using the identified relationships between individual components was shown. This, on the one hand, allowed the intellectual capital structure to be illustrated in a greater detail and, on the other hand, enabled fuller and broader understanding of the role played by the organizational capital in an enterprise.

Based on the analysis of the relationships between individual components of intellectual capital, a model was created, as shown in Figure 1. The basic criteria for the location of individual components was their belonging to one basic group and the calculated correlation coefficient values. In making the graphical presentation, the author chose to use the shape of a polygon that allowed the identified relationships between individual elements to be represented in a clear manner. This shape of the model allows also, in the case of examining individual components, a ready visual evaluation of the state of specific elements and the magnitude of their interaction.

Figure 1. The model for the evaluation of an enterprise's intellectual capital



Source: The author's study

The research carried out has identified major elements that pose most problems to enterprises in the sphere of competencies. These include primarily inconsistency in undertaking activities, manifesting itself chiefly in lack of synchronism between the competency management system and the other personnel functions, such as, for instance, failing to consider the system-defined requirements in the recruitment and selection process. The consequence of this is the need for incurring additional expenses on filling gaps in the knowledge of employees, and the low level of meeting the work post profiles by the employees. Moreover, lack of skills in the area of effectiveness assessment of undertaken development processes is found. The inspection of training effects is often too general, being based on simple one-off questionnaire surveys that do not provide reliable data for analyses. In addition, the examination of the current job potential of employees is in many instances conducted in an unplanned and non-systemic manner based on the opinions of superiors or ineffective methods not matched to the realities of enterprises. As a consequence, the development of employees in many cases takes place in a chaotic manner, and the selection of individuals for training programmes is controversial. The basic cause of the majority of irregularities found in this sphere was aiming at minimizing the system costs. The care about the shape of the economic outturn account of an enterprise should be one of the basic tasks of the managerial staff. However, excessive saving on development programs curtails the competency management system's capability to function, and in extreme cases it totally distorts the sense of existence of such a system, limiting it exclusively to recording in documentation and taking periodical activities spurred solely by arising current needs.

3. CONCLUSIONS

As a result of detailed research carried out in the sphere of human capital management effectiveness it was found that, *inter alia*, the labour costs in the majority of enterprises constituted a significant element of the economic account. The basic factors were pay costs making up, in extreme instances, about 80% of the total labour costs. This structure shows clearly that a considerable part of the entities under study allocated small sums to the development of employees and the incentive system. The lack of resources for basic activities, such as the shaping of organizational culture, training or an incentive scheme, was reflected in the relationship of the pay level change dynamics and the productivity dynamics. The pressure by employees and by trade unions representing them resulted in an increase in the pay level that was not justified by the corresponding increase in individual productivity that would lead to increasing the enterprise's performance. Paradoxically, in spite of increasing the pays, no increase in the satisfaction level among the employees was observed in those enterprises. Too low expenditures on the other personnel functions and the resultant impairment of human resource management did not allow the comprehensive and effective influence on the employees. This situation created a "vicious circle" effect in several enterprises, leading to a consistent increase in labour costs and a decline in the economic effect.

A basic problem identified within the sphere of human resources was, occurring in many instances, high staff fluctuation reaching 30% per year in the extreme case, with a medial of 13.7% for the total sample. The high rotation of employees is a factor with a destructive effect on the organizational culture, employees' morale, or the process of transferring knowledge and experience between generations. This is also indicative of the existence of irregularities in the enterprise management sphere, not only within the human resources. Particularly adverse in this aspect is leaving of the enterprise by employees whose service period exceeds 2 years. Those employees have already attained a certain level of stabilization and in many instances participated also in a training process. As the enterprise has invested financial resources in

these employees, with their departure it will lose the possibility of gaining profits from processes carried out.

The research within the sphere of investments in development showed the occurrence of a certain stratification in the population of enterprises under examination. The distribution of data showed that the result concentrated around the minimum and maximum values. So, enterprises use two basic investing strategies: limited investments resulting from the current needs, and extensive ones correlated with long-term strategic planning. The strategic variant used resulted primarily from the specificity of the industry in question and the economic standing of the enterprises. Development through extensive investments is always associated with a risk that must be minimized by observing advantageous market trends, reported customer needs, or financial results. A considerable group of enterprises renounce processes of a developmental nature to concentrate solely on satisfying current needs or those foreseeable in a short time-frame. From the point of view of intellectual capital, such activities are insufficient. It is necessary to plan, make attempts to predict future events and to commence beforehand adaptation processes. Indeed, short-term adaptation activities are concentrated chiefly on spheres of basic importance, leading to the omission of a number of elements seemingly minor and little significant, but actually providing a bond between different spheres, thus contributing to the occurrence of a synergic effect. Based on the research results, three elements were identified, which were responsible for the largest number of irregularities in the sphere of administration. First, this was a large number of mistakes resulting from disruptions in communication systems. In part of the enterprises information channels are unnecessarily complicated and blocked. Considering the fact that each successive element of the information transfer chain might contribute to the occurrence of distortions in the transmission, attempts should rather be made to shortening the channel to a minimum by connecting to it exclusively those entities that are really necessary. The second group of irregularities related to the inefficient use of information systems. Workers in part of the enterprises did not have skills that would enable them to fully utilize the potential of IT solutions available to them. This resulted from the incorrect conducting of training processes, but also from the lack of constant inspection that could reveal any irregularities. The inability to utilize the available resources led to increasing the duration of particular activities and, as a consequence, to a reduction in the number of administrative activities completed in a unit of time. The third are of occurring mistakes was the sphere of complaints. Part of the entities under examination did not fully use the potential lying in complaint documentation and did not have a system that would allow them the efficient identification of the causes of occurring defects or non-conformities. Thus, the period of devising and implementing corrective actions elongated, exposing the enterprise to the risk of occurrence of an increased number of irregularities of this type.

The research showed that the average degree of meeting the market profile in the enterprise population under study was 48.31% with a median value of 45.75%. So, the majority of enterprises have problems with adjusting themselves to the market. It should be noted, however, that the adopted research methodology considers results above 55% as good, while those exceeding the threshold of 65% as indicating a very good adjustment to the market needs. Nearly half of the results lay in the medium sphere, that is in the range from 45% to 55%, with a maximum of 60.5% (the spread of the sample was 22.5%). Similar results were obtained in the analysis of the level of attractiveness of the sectors in which enterprises are active, where a distinct concentration of values was observed in the low and medium spheres (the three fourths of the results lay in the range from 44.25% to 57.94%, with a maximum of 66.5%). In spite of taking into account long-term factors, the sector attractiveness assessment indicator considered in the research was also based on the part of the values describing the current state of the environment. So, its value is intentionally sensitive to sudden and

unexpected events arising in the market. Thanks to this, a better picture of the actual potential of an enterprise is obtained, which provides more solid bases for development activities within the intellectual capital. An important factor influencing the value of the calculated market situation assessment indicator was the substitution threat. This is one of the market areas that pose serious problems to enterprises, because of the slight possibility of counteracting. Using promotional or awareness campaigns for customers might reduce the interest in substitutes; however, the specificity of the contemporary market and customers being accustomed to having wide possibilities of choosing usually make any preventive actions doomed to failure in the long run.

The analysis of the results obtained within the customer relation sphere has distinguished three basic groups of enterprises. The first group is characterized by a large share of regular customers, exceeding in some instances 90%. This customer structure assures a normalized level of incomes, and the relations strengthened by many years of cooperation allow the number of misunderstandings and non-conformities to be reduced to a minimum. In the long run, low activity in the sphere of acquiring new purchasers might contribute, however, to a significant worsening of financial results (especially in the case of losing a strategic customer of a significant share in the total sales). The second group of enterprises is characterized by high customer rotation. A majority of the contracts are concluded for short terms or even on a one-off basis for a specific order. The consequence of this customer structure were observed fluctuations in incomes – aside from the periods where the financial outcome dynamically improved, there were periods of declines. In addition, the profit enterprises was also affected by the costs of acquiring new customers being disproportionately higher than the costs of retaining the regular customer. The third group of enterprises was characterized by a division into regular and new customer being close to equal.

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LIFECYCLE MODEL THEORIES IN PRACTICE – A MANAGEMENT TOOL FOR SMALL AND MEDIUM ENTERPRISES

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Summary: The importance of the evaluation and assessment of small and medium enterprises (SMEs) increased significantly in the past few years, resulted by the continuous change of the macro environment of the enterprises. In order to show an increasing tendency, companies shall pay attention for these changes and they shall adjust their economic activities to the changed circumstances. The movement of the enterprises on their economic growth path is determined by several factors, one of them is the internal conditions of the given company, which develops the company's life. In our research, we used the corporate lifecycle model of Adizes as the main analytical method, which was supplemented by so-called economic medical records, as a practical tool, by which the SMEs may determine to explore their lifecycle stage, its main features and the signs of evolution or revolution. These analyses may help to form successful change management tools and to establish new strategy if needed.

Keywords: lifecycle, lifecycle models, small and medium enterprises, strategy, change

1. INTRODUCTION

The main purpose of the literary review is to collect and analyse the most important literature sources connected to this topic, and, in addition, to determine the theoretical background of the researches. Under the present circumstances it is very complicated to follow the path of economic growth; therefore, it is a key objective to find those factors and tools, which may help to recognize the different stages of the corporate life. The main purpose of our research was to explore the differences between the different lifecycle theories, their positive and negative features. Nevertheless, we should underline, that economic growth is not the only strategic objective for the enterprises.

2. LIFECYCLE MODELS

Lifecycle models describe the different stages of corporate life. Every company grows and develops according to a natural lifecycle, facing predictable problems at each stage along their way. "All organizations, like all living organisms, have a lifecycle and undergo very predictable and repetitive patterns of behaviour as they grow and develop. At each new stage of development, an organization is faced with a unique set of challenges. How well or poorly can the management answer these challenges, it establishes the future (success or failure) of their organization" (Adizes, 1992). The life of organizations show a cyclic process, as Szirmai (2002) emphasised, the life of a company or organization is a set of new challenges, which may be solved successfully or unsuccessfully. These answers will determine the growth path of the companies.

Life of the enterprises may be considered as a process, a cycle or set of cycles. According to Jávora (1993) it is better to consider lifecycles, as the companies' life is not a permanent developing process but rather a cycle, where the periods of stagnation, increase and decrease change periodically. In our opinion, this aspect is closer to the reality, so we used this theory in our research work.

These models undisputedly may help to define the exact place of the enterprises in the lifecycle phases; moreover, these lifecycle models show the different problems of the different stages, which may give practical help to the enterprises by presenting a so-called medical record for the company executives.

In table 1 and 2 we collected and compared the main lifecycle models in order to show their similarities and differences.

Table 1: Comparison of different lifecycle models in the view of corporate growth (1)

Stages	Model of Adizes	Model of Timmons	Model of Hisrich and Peters	Model of Greiner
Stages of growth	1. Courtship 2. Infancy 3. Go-go	1. Pre-start up (incubation stage) 2. Start up and survival 3. Early growth	→ similarities with Timmons model, but more details in incubation stage	1. Growth through creativity 2. Growth through direction
Rebirth and maturity	3. Adolescence 4. Prime	4. Maturity 5. Stability-Harvest	→ similarities with Timmons model	5. Growth through delegation 6. Growth through coordination 7. Growth through collaboration
Decline	8. Stable 9. Aristocracy 10. Early bureaucracy 11. Bureaucracy 12. Death	--	--	--

Source: own construction based on Zsupanekné (2011)

Lifecycle models show the life stages of the enterprises and organizations as a sequence of different stages, which are based on each other. These models not only determine the general features of the different stages, but also take the different operational and managing problems of each stage into consideration, the methods that help the enterprises to handle the transition periods more easily. The examined models show differences in their stages, namely in their main features, their number and their details.

The model of Adizes gives the different stages of the lifecycle compared to the human life stages. Its most important feature is that it gives the most serious problems and threats, which may endanger the enterprise of that age. In addition, the model of Adizes refers to the possible death of the enterprises.

The model of Timmons does not follow the classic life stages and does not give too much details of the lifecycle, and does not deal with the declining stage or the death of the enterprises. (Timmons, 1990)

Hisrich and Peters use the same characteristics as the Timmons-model, but they supplemented the pre-start up stage (i.e. incubation period) with more details. (Hisrich, 1991)

In *Greiner's model* there are different stages (like in Adizes' model) but it deals with only the company's growth and omits the declining or death stages. (Greiner, 1998)

Table 2: Comparison of different lifecycle models in the view of corporate growth (2)

Stages	Model of Jávör	Model of Kocziszky	Model of Szerb	Model of Salamonné
Stages of growth	1. Preparations 2. Formation 3. Market obtaining	1. Foundation 2. Growing stage	Synthesized models	
Rebirth and maturity	4. Slow growth 5. Preparations for breakaway 6. Accumulation 7. Signs of crisis 8. Consolidation 9. Diversification in profession 10. Diversification of capital 11. Formation of organisational network 12. Formation of political relations or network	3. Differentiation 4. Consolidation	--	--
Decline	--	--	--	--

Source: own construction based on Zsupanekné (2011)

The model of Jávör analyses the lifecycle in a very detailed way. The main concept of this model is to determine the as much stages as possible, and to pay attention for the different organizational problems of the different phases, and refers to the different signs of possible crises, which may endanger the growing process of the enterprises.

Kocziszky, in his model, call attention to that the length of each stages are influenced both by internal factors – decisions of the managers and owners – and external factors – e.g. macro environment of the companies. (Kocziszky, 1994)

Of course, many other authors have dealt with the analysis of corporate lifecycles, but in accordance with the extent and objectives of our research, the examined models may be considered sufficient.

MEDICAL RECORD

Medical record is used to describe the systematic documentation of the patients' medical history and care while staying in the hospital. The very first of the present type of medical record was introduced in the United States, in the beginning of the 20th century at the Mayo Clinic. Medical record has been in use since ancient times, but, their format was rather diary-like, showing the data and facts in time-series format.

The format of the medical record is determined by unwritten rules, some of them are generally used in different medical professions, other rules are more specialized in accordance with the local traditions of different hospitals or departments. A patient's individual medical record identifies the patient and contains information regarding the patient's case history. The medical record in every case should include the following data:

- the patient's personal data,
- the patient's case history,
- the patient's status according to his/her physical examination,
- the patient's medical history in chronological order since birth,
- the results of all examinations taken,
- the epicrisis, i.e. the summary of the patient's full case history.

The main objective of our research was to show how to apply the theoretical aspects of Adizes lifecycle model in practice; therefore, we prepared the medical record of a Hungarian construction enterprise for its different lifecycle stages, in which the most important characteristics and symptoms of the different stages were shown.

As it is well known, all living organisms have lifecycles, their main characteristics, life processes and behaviours may change with time. These features may be predicted, thus, the possible problems and threats may be treated or – in case of business organizations – managed. During the long history of medical science, several diagnostic methods and therapies were developed for the treatment of living organisms, this processes may be adapted for other organizations.

If the organization's lifecycles and the characteristics of the different stages periodic and/or can be predicted, the management will know what is the present stage of life of the enterprise, thus they can react precisely and make the needed actions for avoiding the problems and the possible threats. Table 3 shows a general medical record for the Prime stage.

Table 3: General medical record of „Prime” stage

Name:	Age: Prime
<u>Personal data:</u> - organizational structure; - functional systems; - balanced creativity at institutional level; - successful performance; - planning; - growing business; - separation of new organizations (at infancy stage) from the enterprise	<u>Symptoms, complaints:</u> - lack of well-trained professionals; - internal conflicts; - self-complacency.
<u>Immune system:</u> - permanent growing; - excellent performance.	<u>Missing symptoms:</u>
<u>Temperature:</u> - dynamic operation	<u>Therapy:</u> - rules and for encouraging activities; - decentralization; - encouraging entrepreneurship.

Source: own survey

According to the Adizes lifecycle model, each stage has the specific features and preferences for behaviour, resource allocation and leadership motives. The specific motives are necessary and inevitable in the given stage, but they may refer to abnormal function in another stage. In this paper, because of the limited extent of the paper – the medical record is presented only for the “Prime” stage of the selected enterprise, which is examined according to the model of Adizes.

In Adizes’ opinion (Adizes, 1992), the “Prime” stage is the most successful and favourable phase of the corporate lifecycle, when an organization is in its equilibrium position both in self-control and flexibility.

Table 4 illustrates the personal medical record of the examined construction company’s Prime age.

Table 4: Medical record of „Prime” stage

	Name: Construction company	Age: Prime (1997-2003)	
EVOLUTION	<u>Personal data:</u> <ul style="list-style-type: none"> - equilibrium status (control: flexibility); - successful performance; - growing business; - increasing revenues 	<u>Symptoms, complaints:</u> <ul style="list-style-type: none"> - difficulties in distribution of available capital; - centralized decision-making; - 2004: market saturation. 	REVOLUTION
	<u>Immune system:</u> <ul style="list-style-type: none"> - permanent growing (market expansion); - incentives system for project managers; - quality assurance (ISO 9001, ISO 9002) 	<u>Missing symptoms:</u> <ul style="list-style-type: none"> - separation of new organizations (at infancy stage) from the enterprise - no complaints about the lack of cash (result of the company’s activities) 	
	<u>Temperature:</u> <ul style="list-style-type: none"> - mild fever/fever (“golden age”) 	<u>Therapy:</u> <ul style="list-style-type: none"> - co-ordination between works undertaken, current assets and suppliers; - conservation, staying in the same stage. 	

Source: own survey

The examined construction company spent the longest period of its life in the Prime stage. An incentive system was introduced, quality management certificates were obtained during this stage, As a result of the professional knowledge, experiences and motivation of the leaders, the company could successfully react the changes of the market, thus both their revenue and market share increased.

The power and responsibility became balanced, the organizational structure was corrected. The number of employees increased to 300 persons, which was essential for the realization of the investments projects they applied successfully.

The lack of capital has not occurred, as the company had good connections and working relationship with different banks.

The company has got the ISO 9001 and ISO 9002 certificates, which certifies the permanent good quality of work and technology and, in addition, it could improve the competitiveness of the company.

The internal decisions also stimulated the growing process. An incentive system was introduced for the project managers. The leadership style was conscious; the brainstorming and ad-hoc decisions were not typical. The company could expand in the construction sector. In 2004, the cut of housing support caused a breakpoint of the company's growth, as it caused a significant decrease of the company's revenues. As a result of this breakpoint, new objectives, new strategy was determined for survival, namely, to survive the oversupply in the housing market.

The summarizing assessment of the medical records of the different lifecycle stages are has a significant importance for the company leaders, as by the help of these models the evolution and revolution features of the different stages could be recognized.

While the features of evolution may help the company to remain in the given stage or to step into the next developmental stage, the so-called revolutionary features may bring turbulent changes with negative impacts. The management of the revolutionary stages will basically determine the further development process of the company.

SUMMARY

In this paper on the case of the examined construction company, we identified the evolution and revolution stages of its corporate lifecycle. The results of our examinations showed that the different development stages are not separated sharply, but a transition period may be observed, while some of the features of the former stage will survive as residuum in the new stage. The formalized functioning could only be established gradually. The leaders of the company did not give up their power easily, so the centralised decisions were typical even in the Prime stage. Unfortunately, the company declared bankruptcy by 2009, which came into force in July, 2009. In our opinion, by the help of corporate lifecycle analysis the examined enterprise could have recognized the warning signs, and the liquidization process could have been avoided by establishing a new, appropriate strategy.

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HUMAN RESOURCE PLANNING FOR UNIVERSITY TEACHING SYSTEM

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Summary: Human beings are considered as the most vital, crucial, volatile and unfathomable resource that any organization uses. In the event of the organization failing to place and direct human resource in the right areas of any activity, be it a university teaching system, business/production house serious inefficiencies are likely to occur. In order to achieve this, the co-ordination of demand and supply is necessary, coupled with monitoring and assessment of productivity and technological changes. Staff moves around the organization in a variety of flows. It is not only difficult but also impossible to track and monitor these movements/flows for a fairly large organization without mathematical modelling. This paper makes use of the technique called Markov Chain Analysis in a University Teaching System. The entire mathematics used in the paper has been embedded in the application software developed for the purpose. The HR manager with no background of mathematics can use the software and get answers to the typical HR planning questions.

Keywords: Movements/Flows, mathematical modelling, Markov Chain Analysis, typical HR planning questions

1. INTRODUCTION

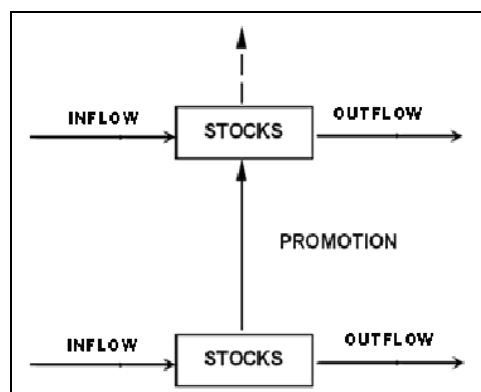
In the present days of intense competition, the organizations are focusing on their core businesses and the other functions are being outsourced. HR was regarded as normative and optimistic and was thought that HR professionals are missionaries and the social science should be used to improve the society refer Warner (1997). Skinner raised the question of HR in his article “Big head, no cattle” –Skinner (1981). Ulrich asked the question “Should we do away with HR?” refer Ulrich (1998). The authors of this paper consider that HR is becoming multi disciplinary and is striving to succeed in strategic direction McKenzie and Melling (2001) forecast that human capital planning will become a strategic driver because today the key issue is “ Ensuring that the right people with right skills are in the right jobs at the right times”. Human Resource moves around the organization in variety of ways it is not feasible to track and monitor these movements/ flows for a large organization without using mathematical modelling. In a University teaching system, the available information could be total number of teaching faculty in each level (e.g. number of lecturers/ Asst. Professors etc.) on the roll of the university department wise/ institute wise, Promotion to higher positions, attrition rates in different levels department/ institute wise, current state of the organization, future state based on current trends/future plans etc. In fact, the requisite information is fed to the computer application software developed for the purpose. The output of the software helps in evaluating various strategies that we adopt in the current as well as in the near future. The system is flexible to encompass changes in the environment or policy parameters of the organization. In the beginning of the 1970s, many companies were planning considerable expansion. During this period, it was realized that the key to success was sufficient supply of skilled personnel. This lead to the emergence of human resource planning as a tool of human resource management. HR planning is the process of ensuring that the correct numbers of human resources are available at the right time and the right place. In order to do that, they

needed appropriate analytical tools. A lot of effort was devoted in developing the tools and techniques to assist the managers with their planning. Many of these were based on the concept of Markov chains refer Bowel (1974). In a large university teaching system, the flow of individuals between various levels is a task, which requires a careful and strict monitoring. Over a number of years, patterns of behaviour may emerge and in many cases, the role of HR planning is to build a picture of such resource movement. In a stabilized environment where the features and characteristics are expected to evolve in a predictable and orderly fashion, a model of long-term pattern would emerge. This would show the expected number turnover of the staff, retirement, and average number of staff that leave due to voluntary/involuntary reasons. This can give basic picture of staff turnover. Information can be used for timings and the number for inducting new staff.

2. HR PLANNING MODELS & PROBLEM CONCEPTUALIZATION

There are generally following two types of HR Planning namely, aggregate planning and succession planning. Aggregate planning anticipates needs for groups of employees in specific levels i.e. lecturers, senior lecturers, assistant professors etc. Whereas the succession planning focuses on key individuals i.e. Heads of Institutions/ Departments, Pro- Vice Chancellors etc. that the organization needs to make sure that these are always remain filled. This paper deals with aggregate planning for the teaching faculty only, whereas a similar logic can be applied for the non- teaching staff. HR models may belong to a variety of categories. HR models were thought as mathematical representations of the relationships of a HR system. Representations are normally in the form of mathematical equations, which themselves express the HR process. HR systems are normally considered as complex systems in which their counterparts interact with each other to accomplish the desired outcome refer Khoong (1996). A typical HR system is presented in Figure 1. Rectangles represent “stocks” and arrows represent movements between various hierarchical levels of the organization/ the outside worlds are called as “flows”.

Figure 1: Typical HR system



Estimates of existing supply of human resource are not static. In a large university teaching system, employees change positions and job levels continuously. In order to assess the supply of employees there was the need to assess movement within the organization as well as the attrition rates in each level. This can be done through an Operational Research technique called “Markov Chain “. This technique describes probability of employee staying in the job in any category, moving to another job, or leaving the organization over a given period of time say one year/6 months/3 months/a month etc.

2.1 MODEL FORMULATION

The basic equation, which occupies a prominent role in most application of Markov Chain models, is as below. For details refer Bartholomew (1963a, 1963b, 1963c, 1991).

$$\mathbf{n}(T) = \mathbf{n}(T-1) \mathbf{P} + \mathbf{R}(T)\mathbf{r}$$

$\mathbf{n}(T)$ = A column vector at time T whose elements are $\mathbf{n}_j(T)$, $j = 1, 2, \dots, k$
(Each $\mathbf{n}_j(T)$ is a row vector).

$\mathbf{n}(T-1)$ = A column vector at time (T-1) whose elements are $\mathbf{n}_j(T-1)$, $j = 1, 2, \dots, k$
(Each $\mathbf{n}_j(T-1)$ is a row vector similar to the one defined above).

\mathbf{P} = Transition probability matrix explained below.

$$\mathbf{P} = \begin{pmatrix} P_{11} & P_{12} & \dots & P_{1k} \\ P_{21} & P_{22} & \dots & P_{2k} \\ P_{31} & P_{32} & \dots & P_{3k} \\ P_{k1} & P_{k2} & \dots & P_{kk} \end{pmatrix} \begin{matrix} a_1 \\ a_2 \\ a_3 \\ a_k \end{matrix}$$

Where

P_{ij} = Probability that an individual in level i at the start of the time interval is in level j at the end.

$i, j = 1, \dots, k$.

a_i = Probability that a member of level i at the start has left by end of the interval. $i = 1, \dots, k$.

It may be pointed out that the sum of the elements of each row of probability matrix = $1 - a_j$, $j = 1, \dots, k$.

$\mathbf{R}(T)$ = Total number of inductees at time T.

If these inductees

are allocated to k levels with probabilities $r_1, r_2, r_3, \dots, r_k$ such that

$$\left\{ \sum_{i=1}^k r_i = 1 \right\} \text{ then } \mathbf{r} = \{r_i\} \text{ is called as induction vector.}$$

3. DEVELOPMENT OF SOFTWARE

All the mathematical computations required in the Markov Chain model have been embedded in the software. A few simple inputs are required for the software to evaluate any option with regard to induction, promotion, attrition rate etc. The software takes into account variation of sizes in levels within a fixed global total or otherwise. Refer Kapur, Khurana and Seth (2008). The software provides answers to the following typical questions.

- What should be the intake during the fixed time interval (yearly, half yearly, quarterly etc) in each level to maintain or vary a specified inter-level structure?
- What should be the promotion prospects of the individuals in the system?
- What effect expansion or reduction will have on promotional avenues?
- How many people are needed over next 5 to 10 years?
- In which level or function do we need them?
- What skill do we expect them to have?

Input data required for the software may be collected as follows.

- Policy parameters of the organization i.e. age of retirement, qualitative and quantitative requirements (QRs) for promotion to next higher group etc.
- Attrition rate during next 5 years or so both due to superannuation and resignation etc.
- Desired inter-level structure of the institution by a specified time.

To find answers to above questions, a range of HR matrices will be required. This may include comparative staff attrition, overall number of leavers and joiners and so on.

4. PROBLEM FOR IMPEMENTATION

The data in Table 1 below relate to a large private university teaching system of the four levels i.e. Senior Professor, Professor, Assistant Professor and Lecturer for the two academic years 2009-10 and 2010-11. Flows for a university Teaching System are shown academic year wise.

Table 1: Flows for a university Teaching System in the examined academic years

Levels	L	AP	Prof	Sr Prof	Turnover	Total
2009-10						
Lecturer (L)	1580	80	0	0	90	1750
Asst Prof. (AP)	0	620	20	0	30	670
Prof. (P)	0	0	550	0	10	560
Sr. Prof. (P)	0	0	0	200	80	280
2010-11						
Lecturer (L)	1780	50	0	0	80	1910
Asst Prof. (AP)	0	650	40	0	30	720
Prof. (P)	0	0	600	20	0	620
Sr. Prof. (P)	0	0	0	250	90	340

Source: own research

In actual practice, propensity to leave depends on the length of service or seniority in the relevant level. Similarly, the promotion probabilities depend upon the length of time persons have spent in their current levels. In real time scenario, it is desirable to define the classes within each level. The beauty of Markov Model is that the classes can be defined as per requirement of the problem. In fact there can be different number of classes in each level. In the above University teaching system, the classes are defined thus: Lecturer/Senior lecturer level has been broken into three classes. Class 1 (C1) comprises lecturer with 0-2 yrs as lecturer. Similarly C2 compromises lecturer/Sr. lecturers of 2-4 years seniority and Class 3 (C3) will be of those with seniority more than 4 yrs as lecturer/Sr. lecturer. Class 4 (C4) is class of Assistant Professors with seniority within 2 years as Assistant Professor and Class 5 (C5) consists of Assistant Professor of seniority between 2-4 years as Assistant Professor, whereas Class 6 (C6) is of Assistant Professor with seniority above 4 years. Class 7 (C7) and Class 8 (C8) are of Professors with 0-2 years and 2 years and more as Professor respectively. Class9 (C9) is a single class, at the level of Senior Professor.

Transition Probability matrix for a total of nine classes is given in Table 2 below.

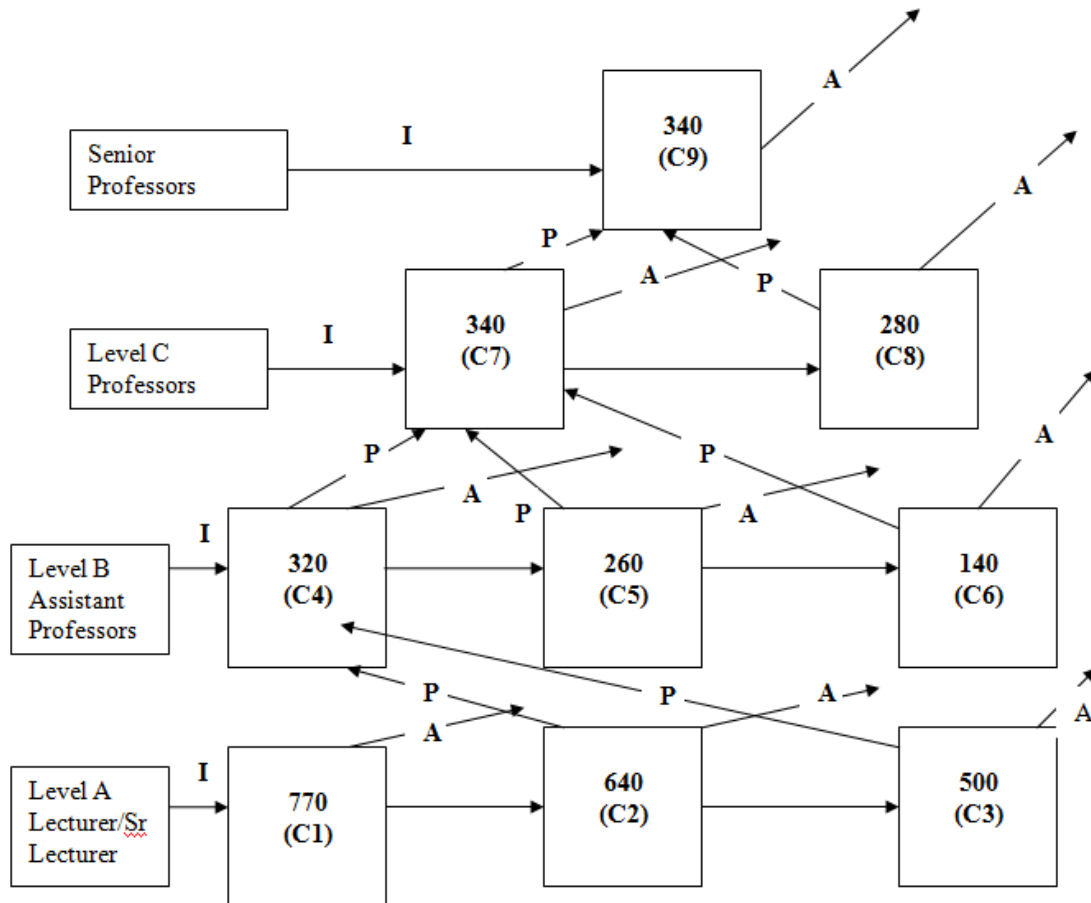
Table 2: Transition Probability matrix for a total of nine classes

Levels Classes	Level 1			Level 2			Level 3		Level 4
	C1	C2	C3	C4	C5	C6	C7	C8	C9
Level 1 (L1)	C1	0.40	0.33	0	0	0	0	0	0
	C2	0	0.33	0.24	0.10	0	0	0	0
	C3	0	0	0.26	0.205	0	0	0	0
Level 2 (L2)	C4	0	0	0	0.44	0.27	0	0.13	0
	C5	0	0	0	0	0.37	0.27	0	0.13
	C6	0	0	0	0	0	0.20	0.033	0
Level 3 (L3)	C7	0	0	0	0	0	0.51	0.32	0.06
	C8	0	0	0	0	0	0	0.45	0.19
Level 4 (L3)	C9	0	0	0	0	0	0	0	0.64

Source: own research

The above transition probabilities were calculated based on the data for the academic year 2010-11 given in Table 1 above coupled with the data shown for each class in the pictorial description of the above system in Figure 2 below, e.g. the value for the cell at the first row and first column is $770/1910 = 0.40$ and similarly for the other cells.

Figure 2: pictorial description of the examined teaching system



Source: own research

Legend:

P: Promotion, **I:** Induction, **A:** Attrition, **C1:** Class 1, **C2:** Class 2, **C3:** Class 3, **C4:** Class 4, **C5:** Class 5, **C6:** Class 6, **C7:** Class 7, **C8:** Class 8, **C9:** Class 9

Data for voluntary attrition rate level wise was calculated based on averages of previous years, whereas figures in respect of involuntary turnover was computed on the basis of ages of current employees and other reasons.

A set of promotion parameters for a particular University Teaching System were considered and fed to the application software developed for the purpose.

It may be mentioned that the induction, promotion, attrition are happening simultaneously in dynamic fashion. It is like a moving car, where people are embarking disembarking at constant basis round the year. The problem on hand was to carry out the induction so that the requirement of a university is met and at the same time ratio between **L**, **AP** and **P** is maintained as 1:2:4 or any other desired by the university teaching system.

The application software encompasses any possible number of hierarchal levels, calculates the transition probabilities required by the model.

Top management can envision the structure of the organisation for any number of years in future. Intervention of intake/promotion can be made for any level(s) in future years.

The following values were fed to the application software:

Number of classes (3 within Lecturer level, 3 within Asst Prof level, 2 within Professor level and just one in Senior Professor level) Thus the total number of classes say, **K**= 9

Number in each class say, **N** (Refer Figure 2)= [770, 640, 500, 320, 260, 140, 340, 280, 340]

Number of persons being inducted in each class of the above nine classes, during a unit time say, **I** vector = [160,140, 100, 80, 60, 60, 60, 40,10]

$$\mathbf{P} = \begin{pmatrix}
 .40 & .33 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & .27 \\
 0 & .33 & .24 & .10 & 0 & 0 & 0 & 0 & 0 & .33 \\
 0 & 0 & .26 & .205 & 0 & 0 & 0 & 0 & 0 & .535 \\
 0 & 0 & 0 & .44 & .27 & 0 & .13 & 0 & 0 & .16 \\
 0 & 0 & 0 & 0 & .37 & .27 & 0 & .13 & 0 & .23 \\
 0 & 0 & 0 & 0 & 0 & .20 & .033 & 0 & 0 & .767 \\
 0 & 0 & 0 & 0 & 0 & 0 & .51 & .32 & .06 & .11 \\
 0 & 0 & 0 & 0 & 0 & 0 & 0 & .45 & .19 & .36 \\
 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & .64 & .36
 \end{pmatrix}$$

5. SAMPLE OUTPUT OF SOFTWARE

The sample output of the software is shown in Table 4 below.

Table 4: Sample output of the software

Level	C1	C2	C3	C4	C5	C6	C7	C8	C9	Total	I
2010	770	640	500	320	260	140	340	280	340	3589 (100%)	710
2011	760	748	596	336	271	140	346	291	228	3716 (103.5%)	1290
2012	761	752	624	341	274	267	274	315	206	3248 (104%)	1110
2013	759	769	645	298	360	279	336	291	346	4083 (113.7%)	1328
2014	760	748	678	456	336	271	340	280	320	4189 (116.7%)	1250

Source: own research

It may be observed from above that structure of the organization can be visualized by changing any value of N and I and the corresponding output can be observed and appropriate decisions taken.

6. CONCLUSION & DISCUSSIONS

The fundamental point of the HR planning is to plan for both the number of people and skills that they will need to deliver the organization strategy. The world is complex dynamic and multidimensional whereas paper is flat. How we represent the rich visual world of experience and measurement on a flat surface. The preparation of HR planning is seen as continuously changing and therefore it requires regular updating. No sooner it is prepared it will have changed. The most basic theory for HR Planning in a university teaching system is to make sure that we have access to the data about the deployment of people in the organization, especially in a large university teaching system. People join, leave, some work as visiting faculty, part-time and some are temporary. Generally, people are on move and tracking them is difficult. The only answer to this kind of situation is to take a snapshot of the HR planning on a particular date of the year. University payroll system is the best source to authenticate the information.

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**CORPORATE SOCIAL RESPONSIBILITY IMPLEMENTATION IN
INTERNATIONAL MANAGEMENT:
A WAY TO INCREASE COMPETITIVENESS OF A COMPANY**

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Summary: The main attention of submitted paper is to explain the Corporate Social Responsibility (CSR) from the viewpoint of a theoretical approach as well as an example of the water as a strategic commodity for future. To demonstrate such socially responsible behaviour we used case of Coca-Cola Company that is one of the world's users of water supplies and therefore water plays strategic role in its future existence. We use the methods of analysis, synthesis and comparison. Company that is one of the world's users of water supplies and therefore water plays strategic role in its future existence. Coca-Cola is currently running several projects in cooperation with international organizations such UNESCO and many other NGOs to support the sustainable development of water use and protect endangered water areas. The case study of Coca-Cola Company shows how is necessary to take into account the relation between the CSR and strategic goals of company.

Keywords: Corporate Social Responsibility, international management, business, company, strategy

1. INTRODUCTION

First decade of the 21 century can be characterized by rapid development of global society as well as by remarkable growth of global issues, both on environmental and social level. These issues have strengthened the necessity to develop and apply more systematic and sustainable approach towards business activities realized on international and local level. Therefore, Corporate Social Responsibility has become an important tool, many companies have decided to apply considering their business activities on local as well as global markets.

The internationalization of firms has generated both adaptive and reactive behaviour. The most evident impact has been upon the intensity of competition faced by firms. However, all elements of the value chain have been affected by these broad environmental changes. For firms, this means they have to reconsider the form and nature of their strategic position as well as the sources of competitive advantage and to attain a new fit with the shifting environment within they operate. This involves both an assessment of the external environment and of those internal drivers that form and shape competitive advantage. There is an increasing sense that in a more complex environment made up of a multitude of political institutions, there is a need to consider the non - market determinants of corporate strategy. This implies that that non-market actions need to be integrated into market - based activities to create an integrated international strategy. Johnson - Turner (2010). Business world has undergone several changes over last decades, considering the role of multinational companies (MNCs) as well as small-and-medium sized enterprises (SMEs). Therefore, Corporate Social Responsibility has become an important tool used to achieve sustainable business approach. The World Business Council for Sustainable Development has define the CSR as a business commitment that contributes to a sustainable economic development via team work with employees and its representatives, families, local and public communities in order to improve

the quality life by beneficial ways both for the business itself and the development (Jamali, 2006).

The Corporate Social Responsibility is not new, but nowadays it seems everyone is talking about it and organizations and businesses are being urged to protect the environment, save energy, and use ethical trading methods. The current concern that all businesses and the public have for ethical behaviour and social responsibility is not restricted to the domestic situation. In this era of global economy, companies must be concerned with how they carry out their business and their social role (Hodgetts - Luthans, 2000). As it was mentioned above, there is very different level for understanding and implementing CSR issues in business practice in different countries and different business. On the other hand, it has to devote the issues, which should have a positive impact on business sustainability, growth and competitiveness. According to Bielik-Hupková (2008) and Quineti et al. (2009), the European market represents very hard competitive environment. The economic integration in Europe has been a challenge for the already existing companies. They need to learn how to compete on the enlarged integrated market and what is equally important all companies need to take globalization and integration processes into consideration (Ubrežiová, 2008).

2. MATERIAL AND METHODOLOGY

The main attention of submitted paper is to explain the CSR from the viewpoint of a theoretical approach as well as an example of the water as a strategic commodity for future. For the purpose of the world trade in water analysis, the authors used the World Trade Organisation's foreign trade database and the United Nations' foreign trade database (UN COMTRADE) as the main information sources for this paper. The world trade with water is not concentrated only at non-sparkling fresh water but also include other beverages under commodity group HS22 (Beverages, spirits and vinegar), which can be divided into three commodity subgroups structure. These are the following: HS 220110 (Mineral and aerated waters not sweetened or flavoured), HS 220190 (Ice, snow and potable water not sweetened or flavoured) and HS 220210 (Beverage waters, sweetened or flavoured, which sub-aggregation covers the following: waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavour). In this paper, we use the methods of analysis, synthesis and comparison.

In order to demonstrate the role of CSR as an important tool used by international companies while dealing with solutions of global problems such as water scarcity we chose currently the world's greatest user of water supplies Coca-Cola Company that is running several international projects supporting the sustainable water management and protection of water resources all around the world.

3. RESULTS AND DISCUSSION

Water resources are sources of water that are useful to humans. Uses of water include agricultural, industrial, household, recreational and environmental activities. Fresh water plays unsubstitutable role in human population development. The quantity of water is limited, especially fresh water becomes scarce factors. Approximately 97% of water on the Earth is salt water and only 3% of total water capacity is represented by fresh water of which slightly over two thirds is frozen in glaciers and polar ice caps. Fresh water is a renewable resource, yet the world's supply of clean, fresh water is steadily decreasing. Water demand already exceeds supply in many parts of the world and as the world population continues to rise, so too does the water demand.

The current water consumption is mainly divided into these 3 sectors:

- *Agriculture* – it is estimated that 69% of worldwide water use is for irrigation, with 15-35% of irrigation withdrawals being unsustainable.¹² As global populations grow, and as demand for food increases in a world with a fixed water supply, there are efforts underway to learn how to produce more food with less water, through improvements in irrigation methods and technologies, agricultural water management, crop types, and water monitoring.
- *Industry* – it is estimated that 15% of worldwide water use is industrial. Water is used in many industrial processes and machines. Major industrial users include power plants, which use water for cooling or as a power source (i.e. hydroelectric plants), ore and oil refineries, which use water in chemical processes, and manufacturing plants, which use water as a solvent.
- *Households* – it is estimated that 15% of worldwide water use is for household purposes. These include drinking water, bathing, cooking, sanitation, and gardening. It has been estimated by Peter Gleick (1996) at around 50 litres per person per day, excluding water for gardens.

If we consider water consumption by regions a tremendous differences emerge between developed and developing regions. While the average volume of domestic consumption in developed countries is about 500-800 litres per capita a day, in developing countries it is about 60-150 litres. The huge problem of current fresh water consumption development is the fact that while the volume of fresh water sources is diminishing (during the last two decades, the volume of available fresh water in the world decreased by 30%), demand for fresh water is constantly increasing. If we compare water consumption and withdrawal in 1900 with water consumption and withdrawal in 2000, we can see huge differences. During the last century, water withdrawal increased its volume more than six times.

Water pollution is one of the main issues of the world today. The governments of many countries have striven to find solutions to reduce this problem. One of the most important presumptions of prosperity and progress towards the sustainable development is the improvement of care of the world ecosystems (including water sources). Human activity leads to degradation of many ecosystems, while the requirements for “ecosystem services” (for example food, drinking water, environment and so on) grow significantly. World population has been steadily growing; its consumption patterns are becoming more and more sophisticated. Demand for fresh water has been growing and price of is also increasing. The result of last 20 years development is the reduction of available fresh water sources for human consumption by about more than 30%. Water becomes not only one of the production factors; water becomes also strategic factor for future human society development. While in 1995 the number of people facing to fresh water scarcity and stress was about 500 million, currently there is almost 1, 2 billion people suffering from water scarcity that means they do not have proper access to 20-50 litres of daily freshwater, which is minimum set by UN organization. Another 1 billion of people do not have access to the fresh water at reasonable prices (Bielik et al., 2010). In 2025, the estimated number of people is about 7 billion. The result of above-mentioned development is the fact, that fresh water becomes the important part of world economy. Nowadays fresh water represents the target of huge international investments.

¹² “WBCSD Water Facts & Trends”. <http://www.wbcd.org/includes/getTarget.asp?type=d&id=MTYyNTA>. Retrieved 2009-03-12.

Table 1: World trade volume of analysed commodity sub-groups (in Kg)

Year	Total trade in HS 220210, 220110, 220190	Mineral and aerated waters not sweetened or flavoured	Ice, snow and potable water not sweetened or flavoured	Beverage waters, sweetened or flavoured
1996	779 914 694 786	2 968 983 028	774 124 371 000	2 821 340 758
1998	769 089 476 720	3 683 710 027	762 538 214 759	2 867 551 934
2000	735 180 545 695	4 670 263 875	726 535 150 565	3 975 131 255
2002	833 878 246 554	6 010 311 378	822 955 610 561	4 912 324 615
2004	828 111 904 118	6 481 441 634	815 307 235 846	6 323 226 638
2006	737 356 108 833	7 221 526 251	721 988 180 941	8 146 401 641
2008	791 432 730 814	6 112 761 473	777 094 115 858	8 225 853 483

Source: Comtrade, (Bielik et al., 2010)

Table 1 shows the proportion of all three commodity subgroups in the whole HS22 commodity business. We see that the main pillar of the world fresh water trade – HS 220190 is stable and during the analysed time period almost no significant changes were recorded, in the case of the other two analysed commodity groups significant changes were recorded in the traded volume during the analysed time period (1996-2008). Later on in the Case study we will enquire about Coca-Cola company producing beverage waters in the third commodity subgroup HS220210 (beverages, sweetened or flavoured) that has recorded in the monitored time period, a growth of traded volume of over 190% (the average value of inter annual growth rate reached almost 9.3%). On the other hand, it must be emphasized that while the share of “Beverage waters, sweetened or flavoured” is very high, its share in total trade volume is minor – only 1% (in 2008). The characteristic, which distinguishes this commodity group from the other analyzed commodity groups, is unit value development. During the monitored period, the average unit value of one kilogram of “Beverage waters, sweetened or flavoured” varied between 0.44 USD.kg⁻¹ and 0.8 USD.kg⁻¹. In 2008, the average value of one kilogram of traded “Beverage waters, sweetened or flavoured” (world market) was 0.8 USD.kg⁻¹. The main drivers of world import of “Beverage waters, sweetened or flavoured” are the developed countries. In the analyzed period, the share of OECD members in total world imports was over 77% (European Union 57%, North America 16%). The shares of developing countries and regions were only minor. On the other hand, the main drivers of world trade are the OECD members. Their share in world exports is over 80% (European Union 62%, North America 11%). On the basis of this data we can see that world trade (export and import) in “Beverage waters, sweetened or flavoured” is controlled by the developed countries. It must be stressed, however, that the majority of trade operations take place among the developed countries

3.1. CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility is the idea that management has broader responsibilities than just to make a profit. Those who embrace the classical economic model content that business’s social responsibility is to maximize profits for stockholders. Proponents of the social and economic model disagree saying that business has a responsibility to improve the general quality of life and beyond making profit (Crane and Matten, 2007). Probably the most established and accepted model of CSR is the four-part model of Corporate Social Responsibility as initially proposed by Archie Carroll. Carroll regards CSR as a multi-layered concept, which can be differentiated into four inter-related aspects – economic, legal, ethical, philanthropic responsibilities. He presents these different responsibilities as a consecutive

layer within a pyramid, such that true social requires the meeting of all four levels consecutively:

- *economic responsibilities*: Shareholders demand reasonable return from their investments, employees who want safe and good-paid jobs, customers who demand good quality products at fair price. This first layer is the basis for all the subsequent responsibilities.
- *legal responsibilities*: businesses should abide the law, abiding these standards is a necessary condition for any further reasoning about social responsibility.
- *ethical responsibilities*: These responsibilities oblige corporations to do what is right just, and fair even when they are not compelled to do so by the legal framework
- *philanthropic responsibilities*: At last, as the tip of the pyramid the fourth level of CSR looks at the philanthropic responsibilities of corporations. By using this idea in a business context, the model incorporates activities that are within the corporation's discretion to improve the quality of life of employees, local communities, and ultimately society in general.

As was mentioned earlier, all four layers of the pyramid have to be fulfilled if the corporation wants to act and be Socially Responsible. In the recent year, we could observe the increasing number of national and international companies contributing to the effort of governmental and non - governmental organizations to reduce the water shortage and help to obtain the water for most suffering communities in the world. All activities are provided via numerous international projects. Water scarcity and other global issues belong to the sphere that is managed with assistance of special tool: CSR. It is focusing company's interest and activities in searching of possible solutions of global problems for the future. At the same time, it is a respond towards public interest in company decision-making processes.

3.2. CASE STUDY: COCA-COLA COMPANY

The problem of water scarcity has become a serious issue that requires unifying the effort of all the international, national and local policies that need to coordinate the common steps in order to find effective solutions. The main step was done by UN organization that set the target MDG (Millennium Development Goals) – to reduce the shortage of access to water by 2025 by half. What is more responsible approach towards solving the problem of water shortage is dependant also on the approach of local, national and international companies, mainly in agricultural and food industry that are using great deal of world water supplies in order to satisfy the increasing demand of growing population.

In the recent year, we could observe the increasing number of national and international companies contributing to the effort of governmental and non - governmental organizations to reduce the water shortage and help to obtain the water for most suffering communities in the world. All activities are provided via numerous international projects. Water scarcity and other global issues belong to the sphere that is managed with assistance of special tool: CSR. It is focusing company's interest and activities in searching of possible solutions of global problems for the future. At the same time, it is a respond towards public interest in company decision-making processes.

Well-known international giant Coca-Cola Company is one of the greatest users of water supplies in the world. Established in 1886, it operates in 200 countries, produces 3000 beverage products and has portfolio of 500 brands. These products include sparkling and still beverages, such as waters, juices and juice drinks, teas, coffees, sports drinks and energy drinks. Coca-Cola products are consumed by 1,6 billion people per day and it placed 10 million machines at all strategic places to meet consumer's requirements around the world.

Unit case volume of Coca-Cola Company in 2008 represented 23, 7 billions sold products. Table below provide an overview of the financial results in years 2004 -2008 in million \$ as we can see on Table 2.

Table 2: Review of Coca-Cola financial results in years 2004 – 2008 in mil. \$

	2004	2005	2006	2007	2008
Gross profit	14068	14909	15942	18451	20570
Net income	4847	4872	5080	5981	5807

Source: www.thecoca-colacompany.com, 2008

What is more, Coca-Cola is focusing its water stewardship on three main areas, included in targets. The first area is aimed at increasing the efficiency (reducing water ratio) while growing their unit case of volume. Secondly, Coca-Cola is dealing with recycling of used water and thirdly is oriented on replenishing water access and watershed restoration and protection. Over the years between 2004 and 2008, Coca-Cola reduced its water ratio by more than 9%, from 2, 68 l per product to 2, 43 l per product (from 2, 43 litres of water to produce one litre beverage one litre goes into the beverage itself, 1, 43 litres are used for manufacturing processes such as rinsing, cleaning, and cooling.) The final goal is to reach 2, 17 litres per product by 2012 representing the set target to improve efficiency by 20%.

In 2007, the Coca-Cola Company has become one of the six companies committed to the CEO Water Mandate through which Coca-Cola is managing their direct operations and supply chains. Moreover, Coca-Cola Company is establishing wide range of worldwide projects based on partnership with many NGOs, committees as well as governments, for instance WWF, UNDP, CARE, or U.S. Agency for International Development. Following chart provides us with the number of partnerships established by Coca-Cola and local communities devoted to the water management around the world.

For instance, in Brazil and Mexico, it cooperates with local governments and NGOs to reforest more than 30,000 hectares of ecosystems to nurture and protect local watersheds. In Thailand, project “RAKNAM“ was launched to drive public awareness and action for sustainable water resource management. RAKNAM also provides an estimated 49 million litres of clean water annually to water-stressed communities in northeast Thailand.

As we can see, especially multinational companies are increasing their responsiveness towards the increasing global problem considering their local responsibilities. At the same time international community calls for actions of companies at all levels to align their steps, production decisions with more sustainable and reasonable approaches. Coca-Cola Company realizes that acting sustainable is not just the requirement of international community but it will influence the whole future of company from the perspective of consumers too.

Especially nowadays, consumers are making their decisions based on the character of the company that makes the products. People want to interact with brands and companies that share their values and are doing their part to protect and enhance people’s lives, communities, environment and the world. By engaging in sustainable business practices and helping to improve the lives of people, Coca-Cola can earn the social license to operate and the opportunity to thrive (Sustainability Review, 2009).

4. CONCLUSION

According to the paper results demand for water use and consumption is increasing simultaneously with the increase of world's population. Beside households, great proportion of all water resources is used by industrial (15%) and agricultural (69%) sectors. On one hand demand for water is increasing, on the other hand water supplies all around the world are decreasing. Due to the unsustainable use of water, many parts of the world already suffer from water scarcity and many inhabitants already do not have access to daily fresh drinking water. Over the last two decades, availability of fresh daily water for consumption was decreased by more than 30%.

Water is one of the key economic factors for future development of all the countries around the world. Especially in recent years, it has become a strategic commodity in the world trade. As a consequence, value of water is growing. It is important to notify, that majority of world trade operations considering water are realized by developed countries. Developing countries play only small role as they suffer from water scarcity.

In order to solve the problem of increasing water scarcity, many multinational companies, governmental and non-governmental organizations are undertaking various steps in order to provide sustainable water management towards the future reduce the water shortage and provide fresh water for the most suffering communities in the world. To reach these set targets, different companies use one of the most powerful tools: CSR approach, which at the same time is a respond to a public interest and companies are using it to demonstrate their share on solving the global problems. To demonstrate such behaviour, we used case of Coca-Cola Company that is one of the world's users of water supplies and therefore water plays strategic role in its future existence. Coca-Cola is currently running several projects in cooperation with international organizations such UNESCO and many other NGOs to support the sustainable development of water use and protect endangered water areas. Moreover, it focuses its own company activities on increase of water efficiency, recycling and replenishing the watershed.

On the whole, CSR can be perceived as a tool which through public interest is urging companies to provide sustainable business operations considering use of natural resources as water, to protect the environment and to create positive impact on the communities where they operates.

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HUMAN RESOURCE MANAGEMENT IN ROMANIAN SME'S: A DYNAMIC PERSPECTIVE

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Summary: The present paper envisages to look at how Small and Medium -sized Enterprises from Romania use a number of human resource practices. It has as main objective to analyze the evolution of the human resource management strategies used by Romanian SMEs over a few years period, namely 2004-2011. This dynamic perspective will envisage aspects such as the evolution of the average number of employees in SMEs, the employees' training activities and the evolution of the average wage in SMEs. The paper aims to identify changes in the HRM strategies used by SMEs given the shift from a good economic climate to a period of economic crisis. The paper will advance in the final section proposals for the improvement of the SMEs human resource management strategies, so that to better cope in economic crisis and post economic crisis periods.

Keywords: human resource management, small and medium size enterprises, Romania

1. HUMAN RESOURCE MANAGEMENT IN SMEs – SOME CONCEPTUAL CONSIDERATIONS

Statistics in almost all the countries show that Small and Medium Enterprises (SMEs) are absolutely predominant in the economy, representing more than 99% of all the companies, having substantial influence on generating the gross domestic product and the supply of jobs (Savlovschi and Robu, 2011).

Since most researchers agree that SMEs are an important part of the modern economy it is natural to focus on people which are an SME's most important asset. More specifically it is important to focus on the managing of the people, which academically speaking is usually referred to as human resource management (HRM). HRM deals with the attraction, selection, training, assessment, and rewarding of employees (Marlow, 2006). HRM became popular in the late 1970s as a managerial approach aimed to ensure that employee efforts were focused to achieve organizational performance and to increase competitiveness in growing volatile markets.

HRM in SMEs is a field that has relatively recently started to be explored and the literature shows that research is still ongoing. The corpus of literature is not mature and contributions are still fragmented. One of the possible reasons explaining the fragmentation of literature is because HRM in small companies is considered to be an emergent process. Also the HRM process in SMEs is perceived as being reactive as opposed to a planned process (Duberley and Walley, 1995) which is usually encountered in large companies.

There are three main trends than can be distinguished by reviewing the literature of HRM in SMEs:

1. Traditional knowledge on HRM topics that applies to large companies – such as recruiting, performance assessment, compensation – that might not always apply to small and emergent companies, considering there is a far greater degree of informality in SMEs than in larger workplaces (Brand and Bax, 2002; Cardon and Stevens, 2004; Harney and Dundon, 2006)

2. HRM activities contribute in offering a competitive advantage for SMEs (Ferligoj, Pranikar and Jordan, 1997; Brand and Bax, 2002). Hiring people with high potential, offering good benefits, focusing on creativity and innovation in other words implementing good HR practices provides a competitive advantage for the company.

3. There is a shift towards strategic HRM in small companies. Strategic HRM can be seen as:

a) HRM practices that contribute highly to the implementation of strategic choices in terms of management, at company level (Duberley and Walley, 1995; Van De Woestyne, Dewettinck and Van Bruystegem, 2010) and b) HRM thinking is seen as a full partner to strategic decision making (Brand and Bax, 2002).

As far as content of SME's HRM research goes, most research presents a case study on a specific country. This might be because, as mentioned before, there is a greater degree of informality in small companies and also they are more prone to influences from external factors (Harney and Dundon, 2006). Also most papers tend to have a more practical approach and are not highly theoreticised. This might be understandable considering cultural differences in various countries although there seem to be practices used by SMEs in general – such as word of mouth hiring (Tocher and Rutherford, 2009).

2. ROMANIAN ECONOMY AND SMEs

Romania's SME sector resembles similar characteristics with the European Union (EU) SMEs, even though EU has a comparatively higher share of micro firms (EC, 2012a). The sector level distribution in Romania shows that the concentration of SMEs is the highest in wholesale and retail trade (44%), followed by service sectors such as hotels and catering, transport, real estate and business services (29%), construction (18%) and manufacturing (11%) (EC, 2012a).

In terms of economic development, the Romanian economy had a positive evolution after 2000 up to the beginning of the world level economic crisis, as the dynamics of the real GDP reflects. See Table 1.

Table 1: Evolution of real GDP in Romania in the period 1999-2010 (%)

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Romania	-4.8	2.2	4.8	4.5	4.9	8.1	4.1	7.7	6	7.1	-7.1	-1.3

Source: <http://www.indexmundi.com>, accessed at 29 February 2012

Romania is one of the European countries that were worse hit by the recession, as its economic expansion relied more on foreign direct investments, which dried up when the effects of the global crisis were felt by investors. Romania's GDP dropped by 7.1% in 2009 and contracted further by 1.3% in 2010. The unemployment rate increased from 5.8% in 2008 to 8.4% in 2009 but further dropped to 7.7% in 2010 (EC, 2012a).

The crisis has taken a toll on Romanian enterprises, putting a temporary stop to the positive long-term developments in the number of SMEs and their contribution to employment and economic value added. In employment terms, it is interesting to see that the SMEs were much more reluctant to shed employees during the crisis than the large firms (EC, 2012a), similar to the European trends where between 2002 and 2010, the SMEs had a much higher employment growth rate (1% annually) than the large enterprises (0.5%) (EC, 2012b). In fact, during 2008–2010, it is estimated that Romanian SMEs maintained their workforce at pre-crisis

level, while the large enterprises shed about 6 % of their workers (EC, 2012a). In this context, the paper looks at a few HRM practices in SMEs.

3. METHODOLOGY OF THE STUDY

The main objective of the study is to look at how human resource practices have evolved in Romanian SMEs over time. The main bibliographical source used is the White Charter of SME's from Romania with its annual editions from the period 2003-2011.

Table 2: Structure of the SMEs samples in the period 2004-2011

SMEs age – TOTAL	2004	2005	2006	2007	2008	2009	2010	2011
	1378	1398	1306	1178	1256	1099	1485	1723
Under 5 years	35.39%	40.49%	37.33%	40.58%	43.31%	36.81%	34.83%	37.05%
5-10 years	32.89%	30.76%	24.65%	24.36%	23.17%	31.85%	22.76%	23.75%
10-15 years	29.66%	27.54%	36.48%	24.49%	21.10%	11.87%	15.75%	21.45%
Over 15 years	2.06%	1.22%	1.54%	8.57%	12.42%	19.47%	26.75%	17.76%
SMEs size* – TOTAL	1378	1398	1306	1178	1256	1099	1485	1723
Micro- E	53.97%	55.29%	62.43%	53.48%	64.10%	52.68%	66.20%	71.83%
Small E	32.35%	30.83%	27.73%	33.45%	26.44%	34.85%	24.32%	21.83%
Medium E	13.68%	13.88%	9.84%	13.07%	9.46%	12.47%	9.48%	6.44%
SMEs domains – TOTAL	1378	1398	1306	1178	1256	1099	1485	1723
Industry	26.44%	17.17%	17.50%	21.41%	22.41%	21.05%	19.48%	17.22%
Building	8.01%	7.65%	6.66%	11.61%	12.67%	10.43%	6.79%	6.67%
Trade	34.31%	45.92%	44.78%	38.95%	34.45%	38.60%	35.60%	37.64%
Tourism	2.54%	4.86%	2.81%	3.18%	3.48%	2.31%	8.88%	7.49%
Transportation	6.14%	6.44%	6.66%	7.57%	8.21%	5.63%	5.75%	10.48%
Services	22.56%	17.95%	21.59%	17.28%	18.78%	21.98%	23.51%	20.49%

Sources: CNIPMMR, White Charter of SMEs from Romania, Editions 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011;

*Micro –E = microenterprises, Small E = small enterprises, Medium E = medium enterprises.

The analysis of the human resource practices in SMEs is based on the results of the yearly survey published in every edition of the above mentioned document. SMEs are grouped in 3 categories: microenterprises (with less than 10 employees); small enterprises (10-50 employees) and medium enterprises (50-250 employees), also with the turnover up to 8 mill. Euro or total assets up to 7 mill. Euro, according to both European Union criteria and Romanian legislation.

Table 2 presents details on the size and structure of the SMEs' samples that have been comprised in the surveys and whose results are compared and analyzed in this paper. The samples were presented as being representative at national level. The same methodology and a similar set of questions were used, ensuring the comparability of results in all years.

4. THE HUMAN RESOURCE MANAGEMENT STRATEGIES USED IN ROMANIAN SMEs: A DYNAMIC PERSPECTIVE 2004-2011

The evolution of the human resource management of SMEs from Romania is studied from the perspective of the following aspects: a) the number of employees (newly hired, structure), b) the evolution of wages of employees in SMEs and c) the training activities for employees.

The **number and structure of employees** is looked at from two points of view: the newly hired employees and the structure of employees on criteria such as education and experience in the field. The newly hired employees reflect the development of the economic activity in SMEs at the sector level and the development of the economic activity at national level, as well. The structure of employees in SMEs reflects the type of employees that the sector can attract giving us an image on the profiles of employees in the sector.

As we have seen, HRM includes aspects related to hiring and firing employees. In case of the Romanian SMEs the progress of the newly hired employees over a period of 8 years from 2004/2005 to 2010/2011 is presented in table 3.

Table 3: The number of newly hired employees in the previous year (% of SMEs)

Number of newly hired employees	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011
Less than 5 persons	73.40	78.78	79.53	84.61	81.09	93.29	94.17
5-10 persons	14.62	11.46	8.92	7.49	7.39	3.64	3.79
11-20 persons	6.60	5.49	6.30	3.95	7.68	1.64	0.78
Over 20 persons	5.38	4.27	5.25	3.95	3.84	1.43	1.26

Sources: CNIPMMR, Carta Albă a IMM-urilor din România (White Charter of SMEs from Romania), Editions 2005, 2006, 2007, 2008, 2009, 2010, 2011.

As an overall observation, it can be said that SMEs declared that they hired new persons every year, illustrating once again, their role as an important employer in the economy, as also stated by a recent report of the European Commission (EC, 2012). The proportions of newly employed people varied with an increasing majority of SMEs employing less than 5 persons/year. Less than 30% of the SMEs employed more than 5 employees in 2004-2005 and the proportion went down to less than 6% in 2010/2011. However, the evolution of new employment in SMEs in the studied period was influenced by the evolution of the economic development of the country. See table 1. The number of newly hired employees in SMEs registered a descending trajectory on the whole studied period, as the percentage of SMEs that hired a large number of people decreased. It can be concluded that the economic difficulties in Romania are reflected also in the HRM of SMEs in the last years, as less SMEs could afford to hire new people and especially in numerous numbers.

The study of the proportion of employees from SMEs who have graduated higher education on the one hand and who have a large experience in the field of activity on the other hand, took place only starting 2010. Around a quarter of SMEs declared in both years that the vast majority of their employees (75-100%) have higher education studies. If we correlate this with the fields of activity SMEs operate in, it can be noticed that the service sector accounts for the SMEs with the highest percentages of employees who have higher education studies (figures 1 and 2); these include SMEs that offer IT services, consultancy services in management, law, etc, civil engineering and others, usually requiring higher education studies.

Figure 1 Percentage of employees with higher education hired in SMEs 2010/2011

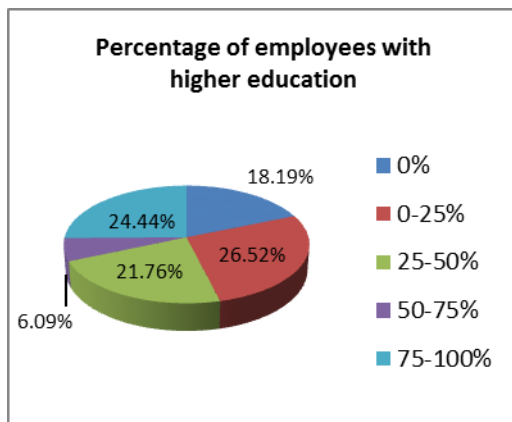
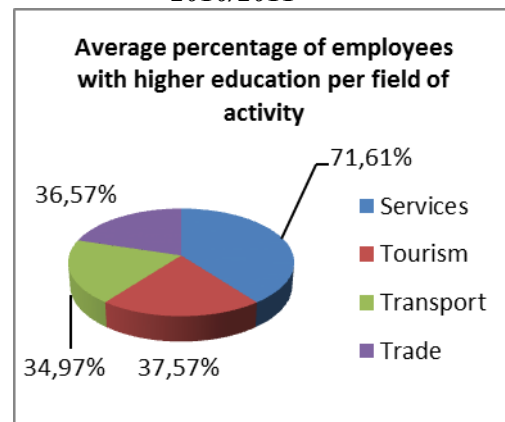


Figure 2 Average percentage of employees with higher education hired per field of activity of SMEs in 2010/2011



The study of the structure of SMEs employees from the perspective of the experience in the work field revealed that in 2010/2011 around 60% of the SMEs had a low percentage (0-25%) of employees highly experienced with over 15 years of work in the field. Domains in which the need of experienced employees is higher seem to be the transport, the construction and the industry. See figures 3 and 4.

Figure 3: Percentage of employees with over 15 years work experience hired in SMEs 2010/2011

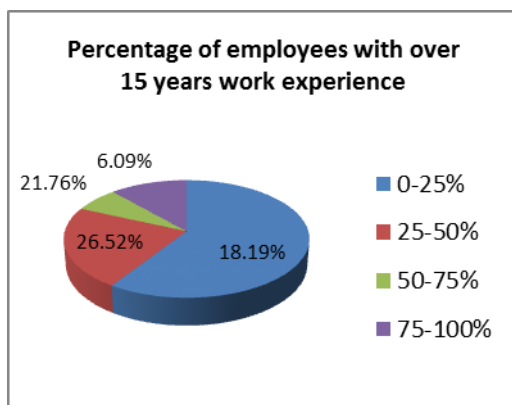
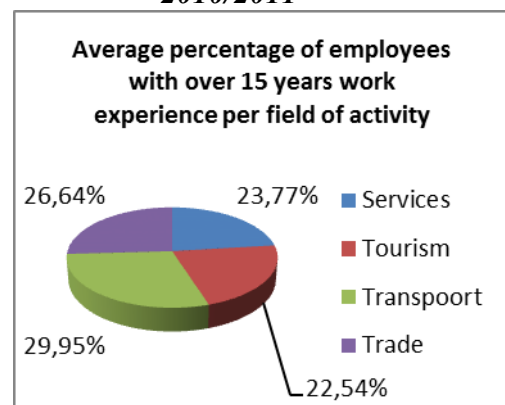


Figure 4: Average percentage of employees with over 15 years work experience hired per field of activity of SMEs in 2010/2011



The more specialized is the work, the higher the need of more qualified, experienced and stable work force. This is similar to what Ferligoj et al. (1997) found for Slovenia, when considering that the more manufacturing oriented the company is the more important the strategies of stable employment are.

Wages represent one way to motivate employees in a company and the evolution of wages can influence the efficacy of the activity of the company, on one hand as well as its efficiency on the other hand. SMEs have been asked about the evolution of the average wage within the company in terms of increase, stagnation or decrease. See table 4. In the period 2003/2004-2008/2009 a high percentage of SMEs declared that they have increased wages at different extents. The highest increase took place in the years 2006-2008, when around of 25-30% of

the SMEs declared that the average wage increased by over 15%. This was associated with a period of economic boom, as the real GDP had a positive evolution.

In the studied period, there was an increasing number of SMEs that declared that the average wage remained the same, their percentage over-passing 50% in the years 2009-2011. Starting 2006, there was a small but increasing number of SMEs (around 20% in 2010/2011) declaring that they have decreased wages. These evolutions of wages were correlated with the evolution of the economy. In spite of the economic crisis started in 2008, there were still 20-25% of the SMEs that declared they have increased yearly wages in different proportions even after 2008.

Table 4: The evolution of the average wage in the SMEs in the previous year (% of SMEs)

Evolution of the average wage in the last year	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011
Remained the same	19.67	20.67	28.13	12.61	14.42	24.66	58.17	54.58
Increased by 0-5%	17.27	34.42	24.57	19.65	14.05	14.24	9.92	11.28
Increased by 5-10%	21.12	20.52	23.43	25.23	21.12	22.69	5.78	7.56
Increased by 10-15%	16.11	10.79	9.93	19.74	21.31	18.37	2.64	3.04
Increased by over 15%	-	-	-	-	-	-	1.36	0.87
Increased by 15-20%	7.98	5.32	8.54	13.62	15.87	11.20	-	-
Increased by over 20%	11.25	6.61	5.40	8.68	12.87	6.48	-	-
Decreased	-	1.67	-	0.46	0.36	2.36	-	-
Decreased by 0-5%	-	-	-	-	-	-	8.07	10.10
Decreased by 5-10%	-	-	-	-	-	-	6.57	6.44
Decreased by 10-15%	-	-	-	-	-	-	3.64	2.66
Decreased by over 15%	-	-	-	-	-	-	3.85	3.47

Sources: CNIPMMR, Carta Albă a IMM-urilor din România (White Charter of SMEs from Romania), Editions 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011.

Training activities are seen as important HRM practices in large companies, while for SMEs the general view is that they are of little importance due to the higher probability of labour turnover (Brand and Bax, 2002) and due to their costly nature (Andersen, 2003). Ways in which the extent of training activities can be measured at company level relate to the average number of days of training per employee. In spite of the reserved views about training activities in SMEs, in Romania this activity has a certain level of development, even though decreasing in recent times. If in 2003/2004, 55% of the SMEs organized training activities with the length between 1-10 days, in 2010/2011 only 36% of the SMEs declared that they have organized training activities, most of them being short training activities (up to 5 days). The trend is towards diminishing the training activities organized by SMEs with the percentage of companies that did not have any day of training almost doubling in 2010/2011 up to 62% as compared to 34% in 2003/2004.

Table 5: The average number of days/employee of training in the previous year (% of SMEs)

The average number of days/employee of training	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011
None	34	34.17	40.68	34.68	35.04	35.25	60.88	62.52
1-5 days	34	43	41	51.12	44.46	36.61	24.88	23.46
6-10 days	21	-	-	-	11.44	15.87	7.20	7.87
Over 10 days	-	-	-	-	9.06	12.27	7.04	6.16
Over 5 days	-	22.83	18.32	14.20	-	-	-	-

Sources: CNIPMMR, Carta Albă a IMM-urilor din România (White Charter of SMEs from Romania), Editions 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011.

5. CONCLUSIONS AND DISCUSSION

The above mentioned analysis leads us to a number of conclusions related to HRM in SMEs:

- a) This research also confirms that SMEs play an important role as a sector that contributes to an economy's employment, as on a yearly basis Romanian SMEs declared that they had newly employed people, even in times of crisis.
- b) In Romanian SMEs there are used HRM practices; similarly as in Dutch SMEs (Brand and Bax, 2002) and they can be seen as competitive advantages at company level.
- c) The economic crisis determined changes in the HRM practices of SMEs, most of them having a restraining tendency: c1) new employees hiring diminished, especially when talking about hiring a large number of new employees. On overall, the proportion of SMEs that hired more than 5 persons/year decreased from 27% in 2004/2005 up to 6% in 2010/2011; c2) wages dynamics has known a reverse evolution: declining after 2008 with over 80% of the SMEs keeping the wages the same or decreasing them after the start of the economic crisis, while in 2007/2008, 85% of the SMEs declared that they increased the wages of their employees and c3) training activities declined to a large extent.
- d) SMEs manifested a high degree of responsibility in applying their HRM practices and this was reflected in the fact that in spite of the overall decreasing tendencies determined by the economic crisis, there were still positive evolutions of the HRM activities in a limited number of SMEs: d1) even after 2008, there was a diminishing but existing percentage of SMEs that employed on average over 5 employees on a yearly basis (20% in 2008/2009 and down to 5% in 2010/2011); d2) in spite of the economic crisis, even after 2008, there were around 20% of the SMEs that increased the wages of their employees and d3) the training activity is still an important activity in SMEs as in 2010/2011 still around 36% of them declared that they have organized training activities in the previous year. This is different from the situation of Dutch SMEs where a relative lack of training is seen as being specific (Brand and Bax, 2002), but similar to Danish SMEs where "the days of the non existing training in SMEs are for some companies over" (Andersen, 2003). We can conclude that there were changes in the HRM practices after the start of the economic crisis and all were in the restricting direction.

In this context, a few proposals for HRM activities in SMEs in the coming period are:

- a) flexibility of SMEs known as a specific characteristic of SMEs (Brand and Bax, 2002) can be used to a higher extent in period of crisis, by involving employees in strategic decision making. Experienced employees can be very good observers and can be used as a possible source of suggestions and solutions for the enterprises, while new employees can bring new ideas and new thinking into the company, if asked to contribute to strategic thinking.
- b) survival of SMEs in periods of economic difficulties depends on the utilisation of their human capital and as skills is seen as the most important factor contributing to the success of the firm (Ferligoj, Prasnikar and Jordan, 1997), SMEs can try to adopt a flexible approach to labour relations, in terms of income determination and other material and moral incentives, so that to motivate employees on the one hand and to fit into the economic constraints of the present period, on the other hand.
- c) SMEs can take advantage of the crisis period and attract qualified and experienced employees who are layed off by large companies in times of economic difficulties.

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MEASURING THE PERFORMANCE OF STUDENTS IN A PRODUCTION SIMULATION GAME WITH DATA ENVELOPMENT ANALYSIS

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Summary: Data Envelopment Analysis (DEA) is a quantitative tool to measure the performance of independent decision-making units (DMU). Several application of DEA can be found in the service sector to compare the performance of banks, restaurants, call centers and academic institutions. In this paper a two-phase CCR input model is used to compare the performance of student groups in a production simulation game. The simulation game is part of a course in a master program in the area of management. As a consequence of the complex nature of the simulation game there is not a single measure to compare the performance of student groups. On one hand, the results of DEA have created the basis of grading student performance, but have also provided information about the effectiveness of teaching the related topics.

Keywords: performance evaluation, data envelopment analysis, training, higher education

1. INTRODUCTION

The comparison of the performance of several production and/or service units is a general problem, which managers frequently have to face. In most cases, there is no any single parameter, which can be used for this evaluation. The compared production and/or service systems provide similar outputs (services or products) and they can independently decide on the amount of inputs used. Simply, we call these production and/or service systems as decision-making units (DMU). The comparison of the performance of several branches of a bank, several units of a restaurant chain, or several production lines of the same plant is typical cases of this problem.

Charnes, Cooper and Rhodes (1978) suggested a linear programming model in 1978, which compared DMUs using relative efficiency measures. Based on the suggested model relative efficiency analysis, or data envelopment analysis (DEA) became an important research area and a useful tool for practitioners. Several applications of DEA are reported in the literature in the service and in the production sector as well (see for example Panayotis, 1992; Sherman and Ladino, 1995; Markovits-Somogyi et al., 2011). A frequently applied area of DEA is the efficiency analysis of higher educational institutions. Jones (2006) compared more than 100 higher educational institutions in England using a nested DEA model. Sinuany-Stern et al. (1994) analyzed the relative efficiency of several departments within the same university. We apply DEA in higher education, but we concentrate on the efficiency analysis of student performance and on teaching efficiency.

In this paper we show, how DEA was applied for the evaluation of the performance of student groups in a production simulation game. This simulation game is part of a course in a master program in the area of management. As a consequence of the complex nature of the simulation game there is not any single measure which can be used for the comparison. There are two objectives of the application of DEA in this case:

– An evaluation method considering the production and financial results and the efficient utilization of the applied resources is needed for deciding on the ranking of student groups.

– Information about how the methods of the production management, financial management and marketing were mastered by the students and used in the simulation game is required.

In the following part of this paper first a review of the applied DEA models is provided. Next, the application environment is presented and some important results of the application of DEA are explained. Finally, conclusions are drawn, and the possibilities of the refinement of the presented evaluation and the areas of future research are summarized.

2. THE BASIC MODELS OF DEA

The objective of DEA is to determine the most efficient decision making units relative to each other, and to assign efficiency measures to each unit. By definition, efficiency is measured as a ratio of weighted output and weighted input. The highest value of efficiency is equal to 1 and the lowest value is equal to 0.

Assume that we have N DMUs with M inputs and T outputs. Notations used in the paper are summarized in Table 1.

Table 1: Notation

<i>Indices:</i>	
j	- indice of decision making units, $j=1, \dots, N$,
i	- indice of inputs, $i=1, \dots, M$,
r	- indice of outputs, $r=1, \dots, T$.
<i>Parameters:</i>	
Y	- matrix containing the output values of each DMU,
Y_0	- vector containing the output values of the DMU examined,
Y_j	- vector containing the output values of DMU j ,
X	- matrix containing the input values of each DMU,
X_0	- vector containing the input values of the DMU examined,
X_j	- vector containing the input values of DMU j ,
e	- unit vector,
<i>Variables:</i>	
u	- vector containing the weights of outputs,
v	- vector containing the weights of inputs,
λ	- the ratio of inputs and the ratio of outputs in the optimal composition,
λ_j	- the ratio of inputs and the ratio of outputs of DMU j in an efficient DMU,
θ	- relative efficiency score,
θ^*	- the optimal value of the relative efficiency score,
s^-	- vector containing the input surplus values of each DMU,
s^+	- vector containing the output shortage values of each DMU.

Vector Y_j contains the values of outputs of unit j ($j=1, \dots, N$), and vector X_j contains the values of inputs of unit j ($j=1, \dots, N$). The elements of variable vector u are the weights of the different outputs. The elements of variable vector v are the weights of the different inputs. Our objective is to find those values of the u and the v vectors, which maximize the efficiency of a specific DMU indicated by index 0. The constraints are imposed by the definition of efficiency, that is, at the selected weights the weighted output per weighted input ratio must be less than or equal to 1. The mathematical programming model describing these constraints and goals are the following,

$$\begin{aligned}
& \text{Max} \quad \frac{uY_0}{vX_0} \\
\text{DMU:} \quad & \frac{uY}{vX} \leq 1 \\
& u, v \geq 0
\end{aligned} \tag{1}$$

Model (1) has no unique solution. It is easy to see that multiplying the numerator and the denominator as well with the same number we get different but equally optimal solutions. Fixing, however, the weighted inputs at value 1 and rearranging (1) by eliminating the ratio of variables, we get the primal input model of efficiency. This model is also called multiplier form of the input oriented CCR model after Carnes, Cooper and Rhodes. The multiplier CCR input model is the following,

$$\begin{aligned}
& \text{Max} \quad uY_0 \\
\text{DMU:} \quad & uY - vX \leq 0 \\
\text{Input:} \quad & vX_0 = 1 \\
& u, v \geq 0
\end{aligned} \tag{2}$$

Linear programming problem (2) consists of $N+1$ constraints and $M+T$ variables. The optimal solution of model (2) consists of the relative efficiency value of DMU 0, and of the optimal values of the input and output weights (u, v). In case of N DMUs, N number of LP models must be solved, to get the relative efficiency of each DMU. In practice, for mathematical and for management reasons the solution of the dual form of (2) is used. If θ is the dual variable of the input normalization equation and λ_j are the dual variables belonging to the inequality of DMU j , then the dual form of (2) is as follows,

$$\begin{aligned}
& \text{Min} \quad \theta \\
\text{Output:} \quad & \lambda Y \geq Y_0 \\
\text{Input:} \quad & -\lambda X + \theta X_0 \geq 0 \\
& \lambda \geq 0; \\
& \theta \geq 0; \theta \leq 0
\end{aligned} \tag{3}$$

Linear programming problem (3) consists of $M+T$ constraints and $N+1$ variables. The optimal solution of (3) consists of the efficiency score (θ) of DMU 0, and of the optimal values of the dual variable vector λ . The optimal solution of (3) tells the decision maker how much the input of non-efficient DMUs should be reduced to achieve the efficiency of the best DMUs. It also tells the decision maker the optimal composition of inputs. Those DMUs, for which $\lambda_j \geq 0$ create the reference set of DMU 0. If the input of the DMUs in the reference set are combined according to the values of λ_j the highest efficiency can be achieved.

The results of model (2) or (3) provide information about the proportional change of all inputs. It is assumed that all inputs must be decreased by the same proportion (θ^*). Sometimes, however, it is possible to decrease some inputs independently of the other inputs without influencing the outputs. Similarly, sometimes some outputs can be increased independently of the other output without requiring more inputs. These possibilities can be explored by the introduction of the input surplus (s^-) and the output shortfall (s^+) vector

variables. The model, which determines the input surpluses and output shortfalls, is called the slack model. The slack model for the dual input oriented CCR model is as follows,

$$\begin{array}{rcll}
 \text{Max} & & es^- + es^+ & \\
 \text{Output :} & \lambda Y & - s^+ & = Y_0 \\
 \text{Input :} & -\lambda X & - s^- & = -\theta^* X_0
 \end{array} \quad (4)$$

First model (3) and next model (4) must be solved. The optimal efficiency score provided by model (3) for DMU 0 is θ^* . The difference between the reduced input of DMU 0 ($\theta^* X_0$) and the optimal composition of inputs (λX) is the input surplus. The difference between the output of DMU 0 (Y_0) and the optimal composition of outputs (λY) is the output shortfall. Model (4) determines the maximal values of the independent input reduction for each inputs and the independent output increase for each output. Note, that first all inputs are decreased according to θ^* , and next inputs are further decreased according to s^- .

Several other models can be found in the literature for the calculation of relative efficiency. If in model (1) the weighted output is fixed then an output oriented models is defined. If the scaling effect between input and output is considered, then a variable return to scale (VRS) model is given. If input surplus and output shortage is maximized directly, without determining first the relative efficiency score, then the group of additive models is determined. A good review of the existing models is given by Cooper et al (2007).

In the following, we will show, how DEA can be used for the evaluation of the performance of students groups in a simulation game. The presented analysis is based on the results of models (3) and (4).

3. APPLICATION ENVIRONMENT

The applied production simulation game is developed by Ecosim to support the education and training in the production management area. We applied this simulation game in the Decision Making in Production and Service Systems course of the Management and Leadership Master Program for students specialized in Production and Operations Management at the Budapest University of Technology and Economics.

The objective of the game is to simulate production management decision making in a car engine manufacturing factory. The factory produces three different car engines for five different markets. Each market has its own demand characteristics. The car engines are assembled from parts on assembly lines operated by workers. The following decisions must be made by each student group for the next production period (year):

- *Production quantities of the three car engines.* Based on demand information forecasts must be prepared about the expected demand. The expected demand, the available production capacity and the final product inventory information are used to determine the production quantities of the next year.

- *Price and paying conditions.* Demand can be stimulated by selling price changes and by favourable payment conditions. Decision must be made on the purchase price of the next production period and on the allowed payment delay percentages.

- *Ordered quantities of parts.* Based on the planned production quantities, on the bill-of-material of the car engines and on inventory and financial information, order quantities of the different part groups must be determined.

- *Number of workers, number of shifts, and quantity of overtime.* Production quantity is determined by machine capacity and by the number of workers. On short term, capacity can

be changed by hiring or firing workers and by changing the number of production shifts or by applying overtime.

– *Investments in production line and in space.* On long term, production capacity can be increased by investments in new production lines and in space available for production and for inventory. Decision must be made in each production period about the number of new production line installations and about the number of square meters of space extensions.

– *Launch of efficiency improvement projects.* It is possible to launch projects which may improve production conditions. The predefined projects have different effects and different launch and maintenance costs. Decision must be made on which projects to launch in a given production period.

– *Application for credits.* There are three different credit types available for financing the operation of the factory. Each type of credit has different conditions. Decision must be made about the amount used of each credit type and about the payback of earlier credits.

After submitting the decisions, the simulation program generates the results of the actual production period. The results are summarised in two reports:

– *Production report.* The production report summarises the decisions for the actual production period. It summarises the quantity of engines produced and soled, the quantity of parts used and the engine and part inventories at the end of the production period. The number of workers, machine capacities, number of production lines and space, available for the next production period are also listed.

– *Financial report.* The financial report provides the balance sheet, the revenue report and the cash flow report valid at the end of the actual production period.

Concluding the seventh production period the student groups are evaluated. Evaluation, however, is very difficult even if only the financial situation of the plants is considered. Pure financial analysis can be misleading. Here are some examples:

– Short term success may not necessarily lead to long term success. The plant may accumulate high profit in the first 7 periods, but if production resources (production lines, production space, improvement projects) do not support production increase for the future, financial performance may decrease.

– A group may follow a cautious strategy. They may decide on low production quantity, financed by their available own financial sources. In this case small profit, slow but steady growth can characterise the plant.

– Long term strategic thinking may provide unfavourable financial results on the short run. Heavy investments can be made at the beginning using credits in order to secure capacity for future growths. If all this is paired with demand stimulating marketing policy and with efficiency improvement projects, profit will be low at the beginning, but steep growth can be expected in the future.

Evaluation is further complicated by the fact, that the simulation game is used not only for deciding the winner according to a specific financial measure. We also wanted to know how students mastered the different areas of production management. It may occur that students made poor financial decisions, but they made good inventory management and/or capacity management decisions.

The next section shows, how DEA helped to evaluate the results of student groups considering jointly and separately financial and operational aspects as well.

4. ANALYSIS OF THE RESULTS

We used relative efficiency analysis (DEA) for evaluating the performance of student groups at the end of the seventh period of the simulation game. In the analysis, two outputs and four inputs were considered. The two outputs are the following:

– *Net cumulated profit*. The profit integrates the effect of marketing, production and financial decisions.

– *Cumulated production quantity*. The production quantity reflects the effect of production management decisions related to machine and worker capacity, to material requirement planning and to inventory management.

The four inputs represent the resources used in the production process, that is,

– The *cumulated number of workers* represents the amount of human resources.

– The *cumulated number of machine hours* represents the amount of technical resources.

– The *cumulated sum of money spent on raw materials and on parts* represents the amount of material resources.

– The *cumulated value of credits* represents the amount of financial resources.

The performance of 9 student groups is compared using a two-phase input oriented CCR model. The results are summarised in table 2, 3 and 4.

Table 2 shows the case when the cumulated production quantity is the *only* output and the previously indicated four inputs are considered. These results help to evaluate the application of production management knowledge in the decision making process. Column 2 shows the total quantity of engines produced during seven production periods. Column 3 shows the relative efficiency scores. We can see that the highest quantity is found at group 8, although, the efficiency score of this group is not the highest. This group should have produced this output using less input. An efficient unit should use 1.14% less of all the inputs of group 8. Furthermore, excess machine capacity and overly high credit was used, as indicated by column 5 and 7. The last column shows, that if this group wants to increase efficiency, they should implement a mixture of the production practices of group 3 and 7.

Table 2 also shows, that group 1, 3, 5 and 7 have the maximum efficiency. We can see that the production quantity of group 5 and 7 is among the highest, the production quantity of group 3 is around the average, and the production quantity of group 1 is below the average. These groups have applied different but equally efficient production practices. In case of group 1 and 3 smaller quantities were produced, but the quantity of resources used was smaller as well.

Table 2: DEA results with production quantity output

1	2	3	4	5	6	7	8
Team	Output Prod. Quant.	Efficiency θ^*	Workers $s(1)^-$	Machine cap. $s(2)^-$	Material $s(3)^-$	Credit $s(4)^-$	Reference set
Group 1	2 793 305	1,0000	0	0	0	0	-
Group 2	2 779 163	0,9454	1 555	140 739	0	1 308 838	7
Group 3	2 899 000	1,0000	0	0	0	0	-
Group 4	2 889 423	0,9906	0	237 219	0	79 023	3, 5
Group 5	3 054 527	1,0000	0	0	0	0	-
Group 6	2 940 133	0,9838	0	375 767	0	524 956	3, 7
Group 7	3 057 918	1,0000	0	0	0	0	-
Group 8	3 130 992	0,9886	0	104 360	0	839 646	3, 7
Group 9	1 621 135	0,8753	2 372	317 291	0	2 030 721	7

Table 3 shows the case when the cumulated net profit is the *only* output and the previously indicated four inputs are considered. These results help to evaluate the joint application of marketing, production management and finance related knowledge in the decision making process. The highest possible efficiency is indicated at group 1 and 3. Note that these groups were among the most efficient groups in table 2 as well. The efficiency of group 7 is, however, among the worst, although it produced the second highest quantity. The reason for

this is that high production quantity was not paired with efficient utilization of resources. An efficient group could have produced this output using 23.17% less of all resources. Furthermore, overly high number of workers and too many materials were used, as indicated by column 4 and 6 of Table 3. The last column shows, that if this group wants to increase efficiency, it should implement a mixture of the production practices of group 1 and 3.

Table 3: DEA results with profit output

1	2	3	4	5	6	7	8
Team	Output Profit	Efficiency θ^*	Workers $s(1)^-$	Machine cap. $s(2)^-$	Material $s(3)^-$	Credit $s(4)^-$	Reference set
Group 1	1 578 563	1,0000	0	0	0	0	-
Group 2	0	0,0000	0	0	0	0	-
Group 3	1 759 553	1,0000	0	0	0	0	-
Group 4	1 538 303	0,9856	0	521 462	334 359 868	0	1, 3
Group 5	1 410 080	0,9005	0	378 256	383 806 582	0	1, 3
Group 6	1 182 609	0,6588	538	38 959	0	194 838	3
Group 7	1 259 507	0,7683	1 155	0	247 415 155	0	1, 3
Group 8	632 569	0,3466	149	0	0	298 208	1, 3
Group 9	0	0,0000	0	0	0	0	-

Finally, Table 4 considers together the cumulative production quantity and the cumulative profit as outputs. The differences among the groups are smoothed out in this case. Five groups are considered the most efficient. Group 4 was not the most efficient in any of the previous two cases, but their efficiency scores were very near to one (0,99 and 0,98). If we evaluate together production quantity and profit, this group joins the set of most efficient groups.

Table 4: DEA results with production quantity and profit outputs

1	2	3	4	5	6	7	8
Team	Output Prod. Quant.	Output Profit	Efficiency θ^*	Workers $s(1)^-$	Machine cap. $s(2)^-$	Material $s(3)^-$	Credit $s(4)^-$
Group 1	2 793 305	1 578 563	1,0000	0	0	0	0
Group 2	2 779 163	0	0,9454	0	0	0	0
Group 3	2 899 000	1 759 553	1,0000	0	0	0	0
Group 4	2 889 423	1 538 303	1,0000	0	0	0	0
Group 5	3 054 527	1 410 080	1,0000	0	312 424	357 210 274	0
Group 6	2 940 133	1 182 609	0,9838	803	58 175	0	290 940
Group 7	3 057 918	1 259 507	1,0000	458	0	20 933 541	196 759
Group 8	3 130 992	632 569	0,9886	0	168 424	0	894 769
Group 9	1 621 135	0	0,8753	1 465	235 195	0	1 267 252

5. SUMMARY AND CONCLUSIONS

In this paper, the application of DEA is presented for the performance evaluation of student groups in a production simulation game. Relative efficiency of the groups is evaluated based on two different outputs. Cumulated production quantity is used for the evaluation of production management related decisions. Cumulated net profit is used for the evaluation of the joint effect of production, financial and marketing related decisions. Four major resources (human, machine, material financial) are used as inputs in the analysis. The quantity of these

inputs used for production is decided exclusively by the student groups, therefore the student groups can be considered as DMUs.

An input oriented two-phase CCR model is used for the analysis. The results correctly reflect the performance of the student groups, however, some further refinement of the analysis is recommended:

– We applied large group sizes (5-6 students) in the simulation game and consequently the number of student groups was relatively small. The small group number smoothed out the differences in performance. The application of smaller group size and higher group number is recommended in future applications.

– The same initial conditions were given for each group at the beginning of the simulation. As a result of different growth strategies, however, scaling effect may appear after some production periods. Consequently, the application of a variable return to scale model might be appropriate.

– There was not any specific rule for student group formation. As a result, very different composition of groups concerning the study results and the interest area of students were formed. The consideration of the composition of students as non-discretionary variable may further refine the results.

– Finally, the analysis of the dynamic change of performance of student groups during the simulation may highlight some interesting mechanisms of the learning process.

The presented application of DEA completed with the proposed extensions might be a useful tool for student evaluations in higher education, but can also be applied for the evaluation of participants in any management training program as well.

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MORAL HAZARD, TRUST AND ECONOMIC COOPERATION

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Summary: The paper examines the drivers of trust in economic cooperation. Our research has focused on the role of two factors on the basis of the widely referred trust model: faith in loyalty and capability. The empirical results clearly confirm the hypothesis of the theoretical model, namely, which partners will trust each other if their faith is high both in loyalty and in competence. Our research has also pointed out that the level of trust between partners is determined differently by the two examined factors: it is statistically proved that the impact of faith in loyalty is higher. By using one of the theoretical models of new institutional economics, the article analyzes the impact of moral hazard (through the trust) in cooperation arrangements.

Keywords: moral hazard, economic cooperation, faith in loyalty, capability, trust

1. INTRODUCTION

It is widely accepted in the international references that the social capital is at least as important factor of production as physical, natural and human capital. Although social capital has not any generally approved definition yet, it has the following elements that are usually listed: cooperation, trust and network. Empirical research has extensively confirmed the key role of trust out of these factors (Borgen, 2011; Jones- Kalmi, 2009; Wilson, 2000).

Trust enables us to fight with uncertainty and risk that is typical for exchange relations (Tóth, 2004). The lack of trust, „the low level of association ability” can be a serious obstacle to the economic efficiency and development in the society (Coleman, 1994).

Following the social transition, the fragmented estate structure was a general problem in the Central-Eastern-European countries (even in Western Europe compared to the United States), therefore cooperation is an important requirement of competitiveness (viability) in this field. These aspects have motivated us to extend our research on social capital, including the relations between trust, moral risk and cooperation, which have been less discussed in special literature.

2. THEORETICAL BACKGROUND

In agriculture – like in other sectors – the farmers work together within several groups and they make oral or written agreements (contracts) for their economic activities. The analysis of these contracts and the organizational arrangements set up this way is one of the most researched fields of New Institutional Economics (NIE).

Some of the theoretical approaches of NIE focus on different aspects of contracts on cooperation: the agency theory typically deals with the area of asymmetric information; the transaction costs theory concentrates on areas related with the costs of concluding the contracts; while the issues of residual control rights are covered by the theory of property rights. These theories, of course, overlap each other in many aspects, while the different theoretical approaches are extremely useful in the differentiated examination of contracts. The present paper describes the examinations made on the basis of principal-agent theory.

The agent theory – especially its normative direction, the principal-agent theory – stresses the asymmetric information and the consequent opportunistic behavior. The asymmetric information is always present – although differently – if cooperation is set up between two or more parties. Within the frames of principal-agent theory the authors distinguish two types of problems due to information asymmetry between cooperating partners: moral hazard and adverse selection. The issues of adverse selection are not discussed by the present paper.

Moral hazard sets in when at least one input is not observable in the cooperation process and the quantity of this input cannot be determined in the contract (Royer, 1999). Following the suggestion of the problem many authors tried to develop an optimization scheme within the question. The special references dealing with the question offer a lot of special models within principal-agent theory. These are (according to Larsen (2008)): multiple tasks model (Holmstrom–Milgrom, 1991); double moral-hazard model (Agrawal, 2002); and, team production model (Alchian–Demsetz, 1972). This latter model is relevant in regards to our subject, because the team production model discusses the situation – as a basic case – when production is performed together with more farmers. In general, the cooperation between farmers can much rather be regarded as the network of farmers (agents) than in principal-agent relation. Nevertheless, it often happens in machinery sharing that the farmer temporarily acts as a principal or as an agent and these roles are changed from time to time.

In the literature of team production, the concept of moral hazard was introduced by Holmstrom (1982). The main point is the following: when the partners in the team are rewarded on the basis of joint efforts and at least one input cannot be observed by the others, it will encourage the individual agents to withdraw from the joint efforts (deadhead behavior). This type of moral hazard is referred to as “effort moral hazard”. Another type of moral hazard is discussed by Hart (1995). When inputs (e.g. machinery, tools, equipment, etc.) are divided among agents in the production process, it will drive them to excess use or misuse of the assets, because the user of the asset does not see the full value of the asset since he does not own it, or only partly. This risk is the so-called „asset moral hazard”. In this case the information asymmetry comes from the imperfect controlling rights above assets because they are in joint use or lease with other farmers. The limited ability of control may cause damage to the assets because the necessary repair and maintenance is not made.

The moral hazard emerging in the economic relations between farmers results the reduction of trust level (Larsen, 2008), and owing to this our research has been extended in this direction, too.

Trust is very important in human relations, thus it is very significant in the cooperation among farmers, too. Questions of trust – as research topic – have become into the focus of interest in many scientific fields during the recent decades.

Trust as a subject of study in (agricultural) economics is a relatively new phenomenon in spite of the fact that it has been used widely in sociology, anthropology and other “soft” disciplines. However, in the last 25 years the number of publications on trust in the economics literature has grown vastly (e.g. McAllister, 1995; Sholtes, 1998; Szabó, 2010 etc.).

We used Sholtes’s trust model in our research (based on earlier research experiences – Takács et al. 2006). Sholtes (1998) placed trust in the matrix of loyalty and capability. We can speak about trust if the faith in loyalty as well as in capability has high values among the partners.

3. MATERIAL AND METHODS

Our examinations are based on primary databases. In order to explore the effect of moral hazard on machinery sharing arrangements we have performed questionnaire survey in the

South-Eastern part of Hungary, in the Southern Great Plain region, in Békés county. The research involved private farmers of three statistical micro regions (NUTS-4 level), namely Orosháza, Békéscsaba and Mezőkovácsháza. We collected information about 132 private farms (n= 132) during the survey. (It is important to note that in statistical terms we do not regard the sample representative either at national or county level, but on the basis of local-level representativeness of the sample we presume that the results collected from the examined region can be generalized because the region is not much different from the key agricultural areas of the country in regards to economy and society.)

A questionnaire was constructed in the frames of the empirical research, the questions of which covered the following topics: moral risk, trust, faith in loyalty and capabilities, cooperation activity (see Table 1).

Table 1: The questions of the survey

<p><i>Moral hazard (MOR)</i> Q1. Have you had any negative experiences during machinery services based on mutuality? Q2. Have you had any negative experiences in case of providing machinery or assets for use? Q3. Have you had any negative experiences in case of joint ownership and use of machinery and assets? If yes, please evaluate their degree on a scale 1 to 7! (0 = No; 1 = Nothing, no big damage to me; 7 = Big problem, I suffered great losses)</p>
<p><i>Trust (TR)</i> Q4. How much do you trust your fellow farmers in general? (scale from 1 to 7)</p>
<p><i>Faith in loyalty (LOY)</i> Q5. I think my fellow farmers definitely keep their words (scale from 1 to 7) Q6. I think my fellows would never do any harm to me even if the conditions of farming changed (scale from 1 to 7)</p>
<p><i>Faith in capability (CAP)</i> Q7. I trust that if any of my fellow farmers provides any machine work to me, the quality of his work will be the best possible under the given conditions (scale from 1 to 7) Q8. I trust that if any of my fellow farmers provides any machine work to me, it will be done at the most appropriate time, under the given conditions (scale from 1 to 7) Q9. I trust that if I lend a machine or tool to any of my fellow farmers, he will use it with the due precautions (scale from 1 to 7)</p>
<p><i>Cooperation activity (COOP)</i> Q10. Please evaluate the individual machinery operations from the aspect of the assets on your farm, how typical is the machinery labor based on mutuality! (0- never; 1- rare: 1-2 occasion/year; 2- median: 3-4 occasions/year; 3- frequent: more than 5 occasions per year.) Q11. Please evaluate the machinery of your farm, how many times they are lend to others for use! (0- never; 1- rarely: 1-2 times/year; 2- median: 3-4 times/year; 3- frequent: more than 5 times a year.) Q12. Please classify each machine of your farm, whether it is in joint ownership with other farmers! (0- No; 1- Yes)</p>

Source: own construction based on Baranyai 2010

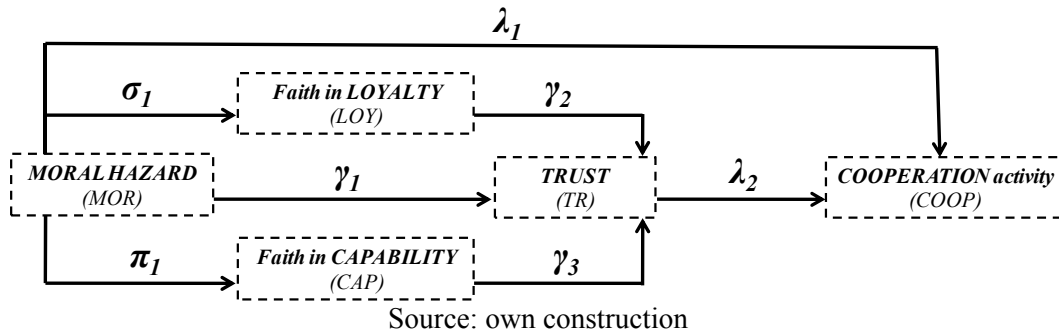
(As it was discussed in Theoretical background, the references describe two types of moral hazard, under the titles of “effort moral hazard” and “asset moral hazard”. Upon designing the research and drafting the questionnaire we did not aim to cover the issues of “effort moral hazard”, we rather concentrated on the aspects of “asset moral hazard”. The questions were

set up accordingly. The survey, however, proved that our presumptions were wrong: the dimensions of moral hazard cannot be clearly separated, or rather the questions we asked were not suitable for defining the categories. In many cases we found that the responses to our questions asked for measuring typically the “asset moral hazard” belonged to the concept of “effort moral hazard”. For example, the negative experiences of farmers from lending the machinery were due not to the failure or breakdown of assets, but rather because they considered the cooperation one-sided. They thought that they gave more in the partnership and made less benefit. In this approach the responses to the negative experiences could not be limited merely to the “asset moral hazard”, but rather to the questions of “effort asset hazard”. Considering this, the further examinations in present paper are generally discussed under the question of moral hazard.)

Out of the 11 items in Table 1 we have formed aggregated indices by each group of question ((MOR, LOY, CAP and COOP). The weights for the indices formed by weighting process were generated with PCA method.

The impact of moral hazard on the cooperation activity was examined with the so-called „way-model” which is the series of regression models built on each other. The logical interrelations of our model is drawn up in Figure 1.

Figure 1: The logic of way-model structure



The model was used for examining the impact of moral hazard (MOR), as an exogenous variable, on the cooperation activity (COOP). Besides the direct impact (λ_1) of moral hazard we can also analyze its indirect effect manifesting through the changes of trust: by using the Sholtes model we take into account that the moral hazard directly (γ_1) and through changing the trust-determinants (LOY and CAP) (σ_1 and π_1) indirectly influences the level of trust which in turn also affects the cooperation activity (λ_2). Four regression models can be described on the basis of Figure 1:

$$\text{Model I.: } COOP = \lambda_1 * MOR + \lambda_2 * TR + RESID_1 \quad (1)$$

$$\text{Model II.: } TR = \gamma_1 * MOR + \gamma_2 * LOY + \gamma_3 * CAP + RESID_2 \quad (2)$$

$$\text{Model III.: } LOY = \sigma_1 * MOR + RESID_3 \quad (3)$$

$$\text{Model IV.: } CAP = \pi_1 * MOR + RESID_4 \quad (4)$$

Where: λ_i ; γ_i ; σ_i ; π_i : partial standardized coefficients (beta); $RESID_i$: residuals.

By drawing the equations together, the following formula can be drawn up, where the beta products express the strength of each „way”:

$$COOP = \lambda_1 * MOR + \gamma_1 * \lambda_2 * MOR + \sigma_1 * \gamma_2 * \lambda_2 * MOR + \pi_1 * \gamma_3 * \lambda_2 * MOR + \sum_{i=1}^4 RESID_i \quad (5)$$

4. RESULTS

The descriptive statistics of variable set in the regression models are listed in Table 2. The experiences of the empirical research prove that the moral hazard is obvious among the surveyed farmers but its average level (2.42) cannot be regarded significant (the theoretical maximum is 7.00).

Sholtes (1998) led back the trust to two determinants: the faith in the loyalty and the capabilities of fellow farmers. According to the results, the respondents believe a bit more in the capabilities (CAP) of fellow farmers that they fulfill the undertaken tasks in appropriate quality, than in their loyalty (LOY) that they always fully keep their promises.

Table 2: Descriptive statistics of the variable set

Descriptors		MOR	LOY	CAP	TR	COOP
Mean		2.42	3.59	3.94	3.77	1.47
CI 95%	<i>Lower Bound</i>	2.11	3.26	3.72	3.41	1.28
	<i>Upper Bound</i>	2.73	3.92	4.16	4.14	1.66
St. Dev.		1.61	1.92	1.27	2.13	1.03
Min/Max		0.00/5.82	1.00/7.00	1.33/7.00	1.00/7.00	0.00/3.01

Source: own calculation

The general level of trust (TR) is 3.77, which is weaker than median. As it is well-known, the respondents used a scale from 1 to 7 to evaluate their own level of trust towards fellow farmers. The replies were distributed as follows: 21% of the sample categorically declared, that: „today you can trust nobody in the world...!”, they indicated the trust level 1. Another 19% chose level 2, thus indicating that they do not really trust their fellows. The weight of those with intermediate trust levels (scale 3-5) was 30%, while the upper end (scale 6 and 7) of trust scale was marked by 17% and 13%.

The average level of cooperation activity (COOP) is 1.47, which means a really modest activity. Examining it by the fields of cooperation the most typical is providing services on mutual basis, almost 50% of farmers participate in cooperation like this, while this ratio is less than 40% regarding the cooperation based on lending machinery to each other. These cooperation arrangements are occasional and cover only one or two work phases or machines. The joint ownership of machines, as form of cooperation, is very rare.

In the next part of research we ran four regression models of the way model and the main results are summarized in Table 3. In model I, we estimated the impact of moral hazard (MOR) and trust (TR) on cooperation activity (COOP). The results have statistically proven that the moral hazard and faith in the economic relations affect the cooperation activity: as it could be expected, the moral risk has negative, while the trust has positive determination. Beta values demonstrate that the partial impact of moral risk is stronger, it affects the cooperation activity to a greater extent than trust.

In model II, the impact of MOR, LOY and CAP independent variables is also statistically proven in respect to the trust level (TR). It can be seen that the moral risk reduces – although very weakly – the level of trust between partners. Another interesting experience that there is significant difference between the „strength” of trust-determinants of Sholtes model (the CI does not overlap!), which means that the faith in loyalty is much more important regarding the trust than the CAP.

Table 3: Summary of results of regression models

Models	Standardized Coefficients (Beta)			R ²	F-sig.
I.	MOR: $\lambda_1 = -0.328^{**}$ (CI95%: -0.240 – -0.416)	TR: $\lambda_2 = 0.214^*$ (CI95%: 0.126 - 0.302)		0.260	0.000
II.	MOR: $\gamma_1 = -0.115^*$ (CI95%: -0.009 – -0.221)	LOY: $\gamma_2 = 0.675^{**}$ (CI95%: 0.559 - 0.791)	CAP: $\gamma_3 = 0.336^{**}$ (CI95%: 0.206 - 0.466)	0.776	0.000
III.	MOR: $\sigma_1 = -0.293^*$ (CI95%: -0.113 – -0.473)			0.089	0.002
IV.	MOR: $\pi_1 = -0.527^{**}$ (CI95%: -0.367 – -0.687)			0.278	0.000

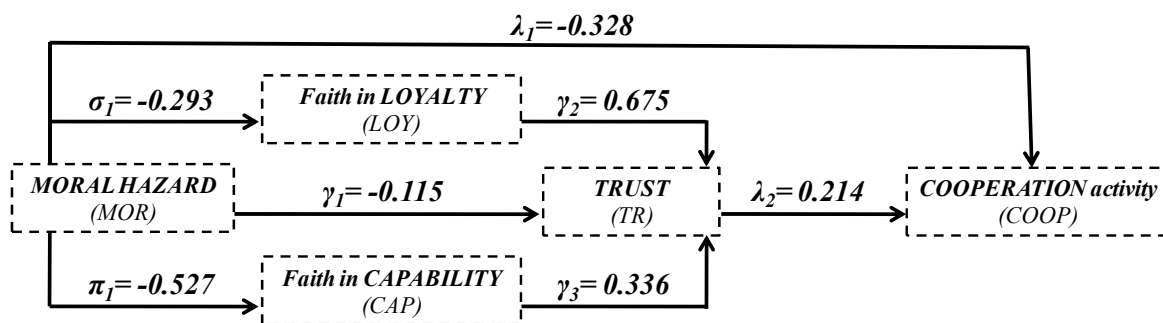
Remark: * significant at the 0.05 level and ** significant at the 0.01 level.

Source: own calculation

Models III and IV estimated the impact of moral hazard on LOY and CAP depending variables. The examinations have revealed significant relations and also proved that the moral risk erodes the faith in capabilities rather than loyalty.

By fitting the estimated coefficients in the way model, we can analyze the impact of moral hazard on cooperation activity (Figure 2). We have presumed in our model that the moral risk affects the cooperation activity in four „ways”: (1) indirectly, the strength of this impact is -0.328 (λ_1); (2) through indirect impact on trust (TR), the strength of which is -0.025 ($\gamma_1 * \lambda_2$); (3) by reducing the faith in loyalty, where the degree of the whole impact is -0.042 ($\sigma_1 * \gamma_2 * \lambda_2$); and (4) through the impact on the changes of faith in capabilities, the strength of which is -0.038 ($\pi_1 * \gamma_3 * \lambda_2$). The main empirical results are described in Figure 2.

Figure 2: Way-model complemented with regression coefficients



Source: own construction

5. CONCLUSION

The study analyses the impact of moral hazard on cooperation activity by using a way-model. In our model we divided the impact of negative experiences of cooperation on the cooperation activity into direct and indirect part, where the direct impact was explained through the decline of trust. In fact, we did nothing else then divided the Pearson-coefficient ($r = -0.433$) between independent (MOR) and depending variable (COOP) into two parts. Our results prove that the direct impact of moral hazard is more significant (-0.328) because it gives about 75% of the Pearson-correlation value, while the totality of impacts appearing through

the changes of trust represent the remaining 25% ($-0.025 + -0.042 + -0.038 = -0.105$). All the above confirm that the moral risk, on the one hand, can directly and negatively affect the cooperation activity of farmers, but an indirect impact should also be considered, which becomes obvious through the decline of trust between farmers.

Summing up the experiences of the research, we can declare that although the statistical analyses have proven the negative impact of moral hazard on cooperation willingness but we cannot state in general that the low cooperation willingness in the machinery sharing arrangements can obviously be attributed to moral risk.

Our results raise the possibility of continuing the research in two directions. On the one hand, by expanding the size of the sample by ensuring the national representativeness. Due to the area limits (Békés county) and the low number of elements, the above results cannot be generalized at national level. On the other hand, it will be necessary to involve further explanatory factors in order to explain the cooperation activity. Besides new institutional economics, the game theory can also help in this work.

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KEY LEARNINGS OF INTRODUCTION OF PROCESS IMPROVEMENTS PROGRAMS

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Summary: Launching of Six Sigma / Lean Programs like the introduction of other Process Improvement Programs (TQM, ISO 9001, BPR) requires a serious and long term commitment from the management. Research shows that it takes at least two years and a high amount of financial investment until the program can be declared matured. The main elements of the program – customer focus approach, waste-free and standardized processes with process owners, introduction and regular usage of KPI's during decision-making processes – require dramatic changes in the organization's culture, in the daily way of thinking. Because of the above mentioned reasons careful preparation is inevitable before starting the Program and top management's support is also vital. The introduction strategy of the Program, selection of target groups, ways of communications, training methods, bonus system, etc. depends mostly on the organizational culture and structure. Mastery of these and the strengths and weaknesses of the organization are crucial. The aim of the paper is to present the introductory steps of a Process Improvement Program and to show key points of interest based on international articles and personal experience.

Keywords: Business Process Improvement, Lean-Six Sigma, success factors, organization culture

1. INTRODUCTION

In the last couple of years, we faced an entirely new age of frequent and intense turbulence¹ in the global economy, which requires a very new mindset and approach from companies. While in the previous decades, economies have returned to their original "normal" state, in the new age, a certain amount of turbulence remains constant, which becomes the new normality. Companies need to live together with constant risk (which can be measured) and with uncertainty (which can't be measured and managed); for this reason they must develop those skills, systems, and processes which are able to quickly realize and forecast the potential turbulence in their environment and determine, in time, the vulnerability and the potential generated by it (Kotler, 2011).

Business Process Improvement (BPI) helps companies to adapt themselves to the continued changes of technological, political, and economical environment. By stabilizing and by controlling processes, companies are more likely able to manage changes and risks in an appropriate way. Companies realize the potential in Business Process Improvements, research shows that improving business processes was the „number one priority” among the ten business priorities in 2009 and 2010 based on nearly 2000 interviews with CIO's. In 2011 and 2012 – due to the economic recession – the main goal became enterprise growth, in addition to continued attention on cost and operational efficiencies (Gartner survey, 2009-2012). Despite of the growing popularity of process improvement programs not all process improvement efforts lead to profitability or to customer satisfaction increase.

2. BUSINESS IMPROVEMENT PROGRAMS

2.1. THE MEANING AND TYPES OF BUSINESS PROCESS IMPROVEMENT

Business Process Improvement is an approach to increase the effectiveness and efficiency of business processes that generate a benefit to internal and external customers (Harrington, 1991). Process improvement - defined by Hammer in 2002 – is “a structured approach to performance improvement that centres on the disciplined design and careful execution of a company’s end-to-end business process”. Six Sigma is a powerful business strategy that aims to make a dramatic reduction in defects, errors, or mistakes in (service) processes, resulting in an enhancement of performance and a vast improvement in business profits, employee morale, quality of products and customer loyalty (Antony, 2005). The original goal of it is less than four mistakes or errors per million opportunities, which means the company has reached the Six Sigma level.

As organizations grow, at a certain point they need to collect their processes and to continuously analyze and refine the processes to ensure good control over them in order to do business effectively. The aim of BPI is to have defect-free and waste-free, controlled processes, which take the customer’s needs into account. It is not only a strategy, but also a tool to help an organization to fulfil its long term goals and objectives.

A lifecycle of a process improvement project includes the following steps: define scope and KPI’s, measure of main KPI’s, collect and analyze detailed data, and improve the process using the original concept of the Deming cycle. Metrics may be customer-based (customer satisfaction, time to market, accuracy of process) or organizational-based (cost, revenue, utilization of resources).

The most important process improvement methods are the following: business process reengineering (BPR), Six Sigma, and Lean. BPR is different from most other process improvement methods because it does not focus on an AS IS, but on a TO BE status. This means a more radical process redesign method (Samia, 2008). Six Sigma and Lean process improvement methodologies are considered advances from Total Quality Management (TQM).

2.2. (LEAN) SIX SIGMA, ONE OF THE LATEST PROCESS IMPROVEMENT TOOL(S)

There have been three recognizable generations of Six Sigma. In the first period (1987-1994), the aim of process improvement projects was a reduction of defects. Motorola was one of the first companies, which successfully implemented this new quality improvement approach. The second period lasted for 6 years; the focus was on cost reduction. Great examples of this period are General Electric, Du Pont, and Honeywell. During the third period, companies recognized the possibility of creating value for customers and for the enterprise (Antony, 2007). Nowadays, it is quite common that companies combine Lean with the Six Sigma methodology, their Process Improvement Programs are called Lean-Sigma Programs. The main key performance indicators in the last case are cycle time, takt time, customer satisfaction etc., which come from the Lean methodology. The aim of Lean method is to map the value or non-value generation of each process steps and to identify the unnecessary steps of them (called waste). At the end result is reduction of cycle time of the whole process.

However, well-known companies such as General Electric, Motorola, and Honeywell have been using it for years, the application of Six Sigma in the service sector is still quite limited, as only the third generation of Six Sigma addresses service, commercial and transactional

system quality. Research shows that most of the service processes like billing, shipping, order entry, response to service requests, baggage handling, etc. performs at less than 3.5 Sigma quality (Yilmaz and Chatterjee, 2000).

3. DEPLOYMENT OF (LEAN) SIX SIGMA PROGRAMS

3.1. MISCONCEPTIONS OF SIX SIGMA, WHICH HINDER (SUCCESSFUL) DEPLOYMENT OF A SIX SIGMA PROGRAM

Before launching a Six Sigma program in a company, it is not only enough to know and deeply understand the methodology itself, but it is also good to be aware of the common myths and misconceptions about Six Sigma, which can hinder the acceptance of it by the management team in order to be able to handle them. The first four misconceptions, that appear below, are mentioned by Kumar and Antony in 2008.

Myth 1: Six Sigma is the flavour of the month

TQM, ISO, BPR were also seen as ‘magic tools’ at first, but over time their strength have decreased. The popularity of Six Sigma is still growing. Lean Sigma is more than a method; it is a way of thinking. Companies, which successfully deploy Lean-Sigma, have lived a real cultural transformation, which results in a continuous appetite for improvement of processes, quality and efficiency. Japanese automobile companies – where Lean methodology is already part of the company culture - got an average of 61.8 ideas per employee per year, while U.S. and European counterparts averaged only 0.4 ideas (Womack, Jones, and Roos, 1990).

Myth 2: Six Sigma is all about statistics

There is a common misperception and criticism towards Six Sigma, which is that the method is all about statistic. This myth comes not only from the name itself but also from the fact that a Black Belt Training² takes, in general, four weeks. 60% of it is about the statistical methods and programs. Process improvement project’s improvement decisions are based on facts and on statistical data, which can be gained from customers or from internal data. Beside the statistical analysis, these process improvement methods use the tools of classic project management, which help the structural approach. Lean-Sigma can be seen as a special project management way.

Myth 3: Six Sigma is only for manufacturing companies

Origins of Six Sigma go back to mid 1980’s, when first, Motorola, and next, General Electric, began to use this systematic process improvement approach giving the impression that it could be deployed only in manufacturing. Nowadays, companies often combine Six Sigma with another process improvement methods, Lean, which ensures them a wider selection of improvement tools and more flexibility. Tools of Lean-Six Sigma like Value Stream Map, Pareto Chart, Voice of the Customer, and Fishbone Diagram are very easy-to-use to detect waste and defects in processes in order to increase their service level. Browsing job offers, it is remarkable that the number of Six Sigma jobs dramatically increased in service sectors in the USA, especially in the health care sector, but we can find some job offers also in libraries, airports etc.. In the case of service processes, some factors hinder the spread of the Six Sigma methodology; difficulty in quantifying and gathering data, difficulty in distinguishing between service processes and sub-processes, data collection in manufacturing is easier than in the service industry (Hensley and Dobie, 2005).

Myth 4: Six Sigma works only in large organizations

Although Six Sigma was only used at the beginning in large enterprises, Six Sigma can be used everywhere where processes and problems exists. Many traditional manufacturing

companies are taking their six Sigma experience to their service operation in order to improve their supporting functions like accounting and supply chain management.

Myth 5: Six Sigma is considered too difficult to implement

As Six Sigma is quite a complex methodology, which combines statistical and project management knowledge, it is hard to explain its essentials and benefits.

A key factor is that those persons who lead the program and projects must be well-trained experts with good project management skills.

3.2. STEPS OF DEPLOYMENT OF (LEAN) SIX SIGMA PROGRAMS TO A (SERVICE) ORGANIZATION

As business process improvement programs require high commitment from the organization (high cost, long wait time while it becomes mature), careful preparation and a deployment strategy are needed before starting the introduction. Companies that have decided to adopt Six Sigma must be aware that to see a benefit, they need to wait.

Gleicher's formula for change ensures an easy-to-follow structure for determining whether an improvement program will be successful or not (Eaton, 2010).

*Probability of change of success = dissatisfaction with the current state * clarity of the vision of what the organization is trying to achieve and what it means to individuals * clarity of what the first steps will be to the desired state > standing for resistance*

It shows that if there is no dissatisfaction with the current state, or no clear vision about the scope, or the implementation steps are not defined, the improvement programs can fail. The formula was improved by Kathleen Dannemiller in 1992, when she added a fourth factor to the original formula: creative leadership to make the process work. If any of the elements is missing, there is a strong chance that the business improvement program fails (Eaton, 2010).

The steps of the deployment are the following:

1. Recognition of the strong need for change

Based on the above-mentioned formula there must be a strong need for change within the organization which must be recognized in time by the management. This need could be generated by internal (quick organizational growth, chaos in processes, quality problems, employee dissatisfaction, employee churn rate, long take to market time etc.) and by external factors (decreasing revenue, economic recession, new competitors in the market, new regulations, low product quality, customer dissatisfaction, increasing cost, etc.).

Recognition of need for change in time is very important, as from the launch until the first results it takes at least six months, while until the maturity two or three years. It also means that if the management support is missing already at the beginning the fall of the Program is almost sure.

2. Invitation of business improvement experts

After the need for change is identified and the management agrees to implement a process improvement program, experts and consultants should be invited to map the current state and the best way and method to introduce a business improvement program. Sometimes, especially in the case of multinational companies, internal experts and knowledge is available to deploy a new program.

3. Analyzing process culture and process maturity

Not every organization is suitable for introduction of a complete business improvement program at the beginning, which involves all departments of the organization. Complexity of deployment depends on more factors; level of management support, amount of resources, need and openness for change, maturity of the organization from process and culture aspect.

These factors are revealed in general during in depth interviews with top, middle management, process experts, and process owners. 10-15 interviews should be made at this stage, which can be also completed by quantitative research. In case of low resources and support, stepwise deployment is suggested.

Organizational culture has been recognized as a very important factor, which has an influence on successful deployment (Zu, 2010). Three of four cultural orientations, *group culture* (participation, teamwork, facilitator-type leader, people and commitment), *developmental culture* (creativity, flexibility, entrepreneurship-type leader, innovation and new resources), and *rational culture* (efficiency, task focus, achievement-type leader, goal orientation and competition) are important for implementing business improvement culture. The fourth, *hierarchical culture* (centralization, order, administer-type leader, regulation, control), does not play a role in the importance of Lean Six Sigma (Zu, 2010). The four organizational culture classifications are based on Quinn and Rohrbaugh's work, 1981).

4. Elaborate the deployment strategy

After having a clear picture about the organization's culture and about the process maturity, the deployment strategy must be elaborated using the company strategy. It includes the action plan of deployment, vision, communication plan, stakeholder management, bonus system etc. Here, very different strategies can be applied; companies can integrate process improvement into a bigger change management program or process improvement can be introduced stepwise; for example, only in selected departments or first, the more comprehensive Lean method, after Six Sigma will be introduced, etc.).

5. Involve-top management and middle management team

Resources for the Program, acceptance of goals and results are ensured by the management, which means without their support a Business Improvement Program can't be successful, their involvement is crucial.

Different deployment strategies can also be applied in this case. A critical question (which also depends on the organization's culture) is which management level should be targeted with what kind of message. The approach can be top-down, bottom-up or middle out. Mintzberg affirms that the acceptance of a new mindset change requires an open, strong organizational culture and active communities who are willing to change. These communities can mainly be found in the middle management team, so he suggests relying on them (Mintzberg,2009).

6. Set a clear vision, measure of success

Gleicher's formula suggests that setting a clear vision is a crucial success factor. The most typical goals and objectives include obtaining:

- 3.4 defects per million customer opportunities
- Excellent customer satisfaction
- Less than 10 percent inefficiency in all key processes by eliminating waste from the processes (Lean method).
- Revenue increase, cost reduction

It is very important to create at the beginning a concrete measurement system which gives a clear picture about the Program status and about the success to the Management and to the Organization, as well. This measurement system must be aligned with the company strategy. Interest towards the Program can be reached, sustained only in that case if its KPIs have strategic importance. In other case it won't be supported by the Management.

7. Select the most talented people for change agents

Other key success factor is project leaders. They are the Black Belts, Master Black Belts. They must be those talented persons of the organization, who have professional experience, able to lead bigger, cross functional projects. They must be good communicators, who have enough power and belief to make changes happened.

These change agents are mainly selected by assessment centres ensuring that the most talented and prepared persons are selected. Black Belt status is perceived as great carrier opportunity, they are often seen as the future leaders of the company. Welch and Welch (2005) points out that “Perhaps the biggest but most unheralded benefit of Six Sigma is its capacity to develop a cadre of great leaders.”

Companies can apply another deployment strategy when not internal professionals are selected for these positions, but external consultants are invited to deploy the Program and to run projects. The advantage of it can be that these consultants have more experiences as they led more projects. The disadvantage can be that they are not familiar with the company and with its culture.

8. Train the change agents and other team members

The key attributes of Project Leaders identified from a pilot study of UK manufacturers include: effective communicators, change agents, customer advocators, team builders, results-driven-mindset personnel, positive thinkers, etc. (Antony, 2007). In order to obtain the necessary statistical and methodological knowledge in case of Six Sigma, Black Belt must be take part in a 15-20 day training, which includes statistical, project management elements. It is also required that other core team members become involved in the method with a shorter, from 1 to 5 days training (Yellow Belt, Green Belt). They are called Green Belts. Lean training takes less time and less statistical knowledge is required. Trainings play important role in deployment, as they offer good opportunity to learn the method personally by case studies. 10-15 persons take part in general in a training, so the trainings are also good communication tool of the Program. Training and communication are also extremely helpful during deployment.

Effective implementation of an improvement program is about organizational learning and without organizational learning there can be no continuous improvement (Wiklund and Wiklund, 2002).

9. Select the Project

Selecting the right project in a Business improvement program is a crucial factor in the early success and long-term acceptance within any organization (Antony, 2004). In the deployment phase, the first focus is to create acceptance and excitement. The first projects should provide enough financial benefit to demonstrate the potential of the program and convince top management. It can be a potential failure risk if their scope is too wide or too short, or the selected process is not a clear process or irrelevant from the strategy aspect.

4. RESULTS: KEY FACTORS OF BUSINESS IMPROVEMENT PROGRAMS

Research (see Table 1) shows that the most important factors, which influence the success of Six Sigma deployments, are:

- 1 .) Commitment, support of the Management and Organization
- 2 .) Understanding of methodology, training
- 3 .) Project selection aligned with the company strategy

Table 1: Most important factors influencing the success of Six Sigma deployments

Ranking	Factor	Average	Standard deviation
1	Managing involment and commitment	4.3	0.6749
2	Understanding of Six Sigma methodology	4.2	0.6726
3	Linking it to a business strategy	4.1	0.8403
4	Linking it to customers	4.1	0.8973
5	Project prioritization and selection	3.9	0.7906
6	Organizational infrasturcture	3.9	0.9992
7	Cultural change	3.6	0.8842
8	Project management skill	3.6	0.9413
9	Linking it to supplier	3.5	1.1536
10	Training	3.4	0.8012
11	Linking it to employees	3.1	0.8853

Source: Antony and Banueals, 2002

Research's results are similar to those successful key factors, which are experienced also by me during the last years. As a Business Improvement Programs requires some highly qualified, trained, full-time employees and at least six months until the first results start coming, support and focus of the management team is the key success factor. Attention of the management team can be sustained by communication of successful projects. The keys of successful projects are careful project selection and good project leaders, with supportive team members.

Researches also underline the importance of training. Teaching team members, both middle and top management, helps to spread the new way of thinking and process culture. During the trainings, participants are able to understand structural problem solving methods helped by tools and templates and a decision making process based on data by practicing it with case studies.

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GLOSSARY

- 1.) Turbulence: violent or unsteady movement of air or water (Oxford Dictionary)
- 2.) Black Belt: expert in Six Sigma methodology, project manager
- 3.) Governance: mechanism with it an organization control its action, decision making process

TRAINING PRACTICE IN CENTRAL AND EASTERN EUROPEAN COMPANIES – BASED ON CRANET RESEARCH

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Summary: In the period of global competition and radical economic changes human resources and their intellectual capital become a vital resource for organizations. Employees' competence, knowledge, skills and experience have to contribute not only to the company's financial and marketing success, but also to broader (environmental and social) considerations. The main aim of the Training & Development as a human resource management (HRM) activity is to help this organizational knowledge acquisition systematically. In Central and Eastern Europe (CEE) HRM managers have a challenging task to implement new methods of effective in-company trainings. The aim of this work is to describe some characteristic features of the training practices in 6 CEE (Bulgarian, Czech, Hungarian, Serbian, Slovak and Slovenian) countries based on Cranet international research results from the year 2008/10. The findings can provide good benchmark for HR practitioners when designing their new region- and country-specific training approaches.

Keywords: training, Central and Eastern Europe, human resources, Cranet

1. THEORETICAL BACKGROUND

In the 21st century when the companies' success mainly depends on the competences and innovativeness of their employees, training and development, as one of the key HRM functions becomes more and more important. Lekovic and Susnjar (2010) note that training includes all those activities, which enable, make easier and accelerate knowledge acquisition necessary for successful business activity. On the other side, Armstrong (2007) defines development as the growth or realization of a person's ability and potential through the provision of learning and educational experiences. Peretz and Caspi (2011) enhance that organizations can follow many paths to secure a skilled and competitive human force. One of the most direct ways is to focus on training and development HRM activity. The more advanced the firm's training policy is, and the more efficiently it invests in T&D, the more likely it is to position itself well on the market (Stavrou and Brewster, 2005).

According to one school of thought, HRM practices always depend on the context. Based on a longitudinal study conducted in 18 European countries Nikandrou, Apospori and Papalexandris (2005) emphasize that European HRM is characterized by internal variations among clusters of countries and at the same time by external uniformity compared to the rest of the world. Mayrhofer, Sparrow and Brewster (2012) have a similar view, underlining that considering the various elements of external context (national cultures, institutional environment, economic factors, social characteristics, education and political systems) Europe offers a mix of hetero- and homogeneity leading to a unique context for organizational decision makers about HRM matters. Mayrhofer, Sparrow and Brewster (2012) identify the following differences between European and US context of HRM which makes the US HRM techniques only partly applicable in Europe: stakeholder rather than shareholder approach, the role of the state, people's rights in and to their jobs, and the importance of consultation and collective representation.

Even within Europe there are significant differences in internal and external HRM context and therefore in HRM practice, too. Brewster, Morley and Buciuuniene (2010) state that charting the landscape of HRM in Central and Eastern Europe (CEE) is a difficult task. The societies of CEE have undergone through radical changes since the early 1990s, but with rather different outcomes. CEE is now characterized by rising economic heterogeneity and rapidly changing socio-cultural context stressed with privatization, increasing FDI and emerging individualization. Morley, Minbaeva and Michailova (2012) stress that CEE is not historically well documented in management and human resources literature and contemporary developments occur against the backdrop of large scale of political, economic and socio-cultural shifts. Poór and Milovecz (2011) state that the quick transition from state control and national economic planning to free market, globally competitive capitalism in CEE region resulted in significant consequences.

- The political and administrative map of the region has undergone drastic changes.
- Due to the privatization process the private sectors has become dominant in GDP terms.
- Economic problems – the transition is followed by high inflation and decrease in performance.

Ignjatovic and Svetlik (2003) analyzed data of 24 European countries (Cranet research from 1999/ 2000 research period) and determined four European HRM clusters:

- Nordic cluster is characterized by employee-focused HRM of medium intensity.
- The Central Southern cluster where HRM is of low intensity and mainly gives administrative support to managers.
- In the Western cluster HRM activities are intensive and professional and HRM is a strategic partner of management.
- In the Peripheral cluster (with mainly CEE countries) HRM has a low status and management-focus.

Based on the data of Cranet survey conducted in 2004 and 2005 in Bulgaria, Czech Republic, Estonia, Hungary, Slovakia and Slovenia Karoliny, Farkas and Poór (2009) identified the similarities in HRM practice in CEE companies. These are the following:

- Staffing (especially managerial selection) relies heavily on the company's internal resources.
- The planning and implementation of training activities is dominated by the HRM department, while the training need identification is mainly line management responsibility.
- The performance appraisal is a widespread activity and used the least for manual works.
- Local establishments have a powerful role in determining the basic pay.
- The proportion of companies with low unionization rate is high.

Long ago CEE region is well-known for its high-educated, competent and innovative but cheap labor force. Poór and Milavecz (2011) confirm that investors choose the CEE region not only because of its cheap labor but the skilled, blue-collar workforce, engineers, technicians and perceived higher flexibility are also important strengths of this area.

According to Ignjatovic and Svetlik (2003) findings in Northern and Western European clusters the focus is more on internal, in-company training programs and these companies send a larger portion of their employees on training programs than in two other clusters. In the Southern and Peripheral clusters managers spend more days in training than in the Western or Nordic clusters. On the basis of the recent Cranet survey Karoliny (2010) underlines that there is a slow convergence and improvement in the rate of implementation of up-to-date techniques in T&D – across CEE region. Especially notable are the good results in several

T&D indicators, although the methodology used in their evaluation may be subject to questioning.

2. RESEARCH METHODOLOGY

This current research is based on the Cranet data obtained in 2008/10. The Cranfield Network of International Human Resources Management (Cranet) was established in 1989 is now a collaboration of more than 40 universities and business schools, representing a country from all over the world. In this paper the authors analyze the data of the latest Cranet survey round (2008-2010), when the European sample was created by the respondent companies from 18 EU countries and five other European (Iceland, Norway, Russia, Serbia and Switzerland) countries.

In 2008/10 research period 267 Bulgarian, 54 Czech, 139 Hungarian, 50 Serbian, 225 Slovakian and 219 Slovenian, id. est altogether 954 CEE companies' HR managers filled out the Cranet questionnaire concerning various aspects of HRM function. The respondents of the CEE sample were made of companies mainly from manufacturing and service sector in private ownership, with less than 1000 employees. The EU sample consisted of 3748 companies from 18 countries, while the total European sample from 4189 companies from 23 European states. Beside Europe Cranet has data about HRM practice in USA, Japan, Taiwan, South Africa, Israel, Australia and Philippines, too, but the results of these countries are out of the focus of this current paper.

The aim of this work is to present and analyze the training practices in Bulgarian, Czech, Hungarian, Serbian, and Slovak and Slovenian companies both by countries and as a particular region average and compare it to practice of companies from all EU respondents and all European region participants averages. The paper will present and analyze data indicating the:

- *importance* of T&D expressed by the ratio of the annual training budget in the total payroll costs,
- *extensiveness* of T&D function, characterized by annual training days per year among different type of employees and the
- *effectiveness* aspect of T&D described by the most often used techniques for evaluating the T&D function.

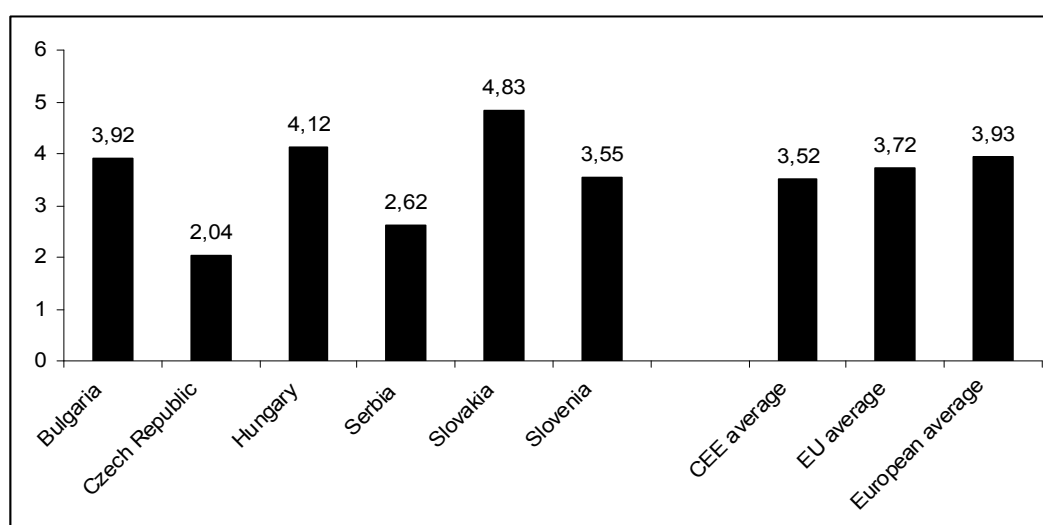
3. RESULTS

3.1. PROPORTION OF ANNUAL PAYROLL COST SPENT ON TRAINING

According to the Cranet data, companies in EU countries in average spent 3,72% of their annual payroll cost to training and development, while for European companies this ratio average is a little bit higher: 3,93%. As the individual and average ratios on Figure 1. indicates, the average ratio of this T&D importance indicator in the analyzed CEE countries is further gap lower, than the EU counties average. In conclusion, the rank of importance of T&D practice is as follows:

- European countries,
- EU countries,
- CEE countries.

Figure 1: The proportion of annual payroll cost spent on training (%)



Source: Cranet data and authors' calculation

Among the examined CEE countries in the 2008-2010 research period majority of the companies spent 2– 5 % of their annual payroll cost to employee training and development programs. The highest average proportion is reported from Slovakia (4,83%) and Hungary (4,12%), while the lowest from Czech Republic (2,04%) and Serbia (2,62%).

As a summary, it can be stated that on the one part there is a significant difference among CEE countries in the importance of investments into T&D function, on the other part their average ratio is the lowest in comparison to the rest of the investigated European samples in our analyses.

3.2. ANNUAL TRAINING DAYS

The extensiveness of T&D function is characterized by the indicator of training days per year offered for different employee categories. (see Table 1)

Table 1: Training days per employee

Country	Employee categories				Average
	Manual	Clerical	Professional	Management	
Bulgaria	7,90	5,75	10,90	7,62	8,04
Czech Republic	3,56	5,35	8,00	8,15	6,26
Hungary	1,98	3,53	6,63	6,81	4,74
Serbia	1,71	6,13	8,16	11,50	6,88
Slovakia	5,50	7,10	10,45	10,11	8,29
Slovenia	6,25	3,89	10,45	7,97	7,14
CEE average	4,48	5,29	9,10	8,69	6,89
EU average	4,14	4,71	7,88	7,20	5,98
Europe average	4,11	4,86	7,88	7,71	6,14

Source: Cranet data and authors' calculation

The rank of extensiveness of T&D is lead by the Slovakian and Bulgarian companies. On average their employees spend more than 8 (8,29-8,04 days/year consecutively) days on training. At Slovakian companies not only the management and professional staff members

spend considerable amount of time (a little bit more than 10 days) with training, but also the clericals are receiving the highest (7,1) in sample days/year and the 5,5 day offered to manuals is also substantial. In spending time on manual workers training, the highest numbers (7,9 days/year) are reported from the Bulgarian firms, where this indicator is creates the second highest average in CEE sample, with the narrowest standard deviation.

On the bottom of the rank of T&D extensiveness indicator are the Hungarian employees, who in average spend less, than 5 (4,74) days per year on competence-development. This average is hiding a practice, where the members in all the staff categories are receiving the lower in CEE sample time spent on T&D and there is only one country (Serbia 1,71) in this sample, where the manuals are participating with fewer days/year in training courses than in Hungary (1,98). On average the professional staff spend the most time on training, except in Czech Republic, Hungary and Serbia where managers have the most paid days off for training purposes.

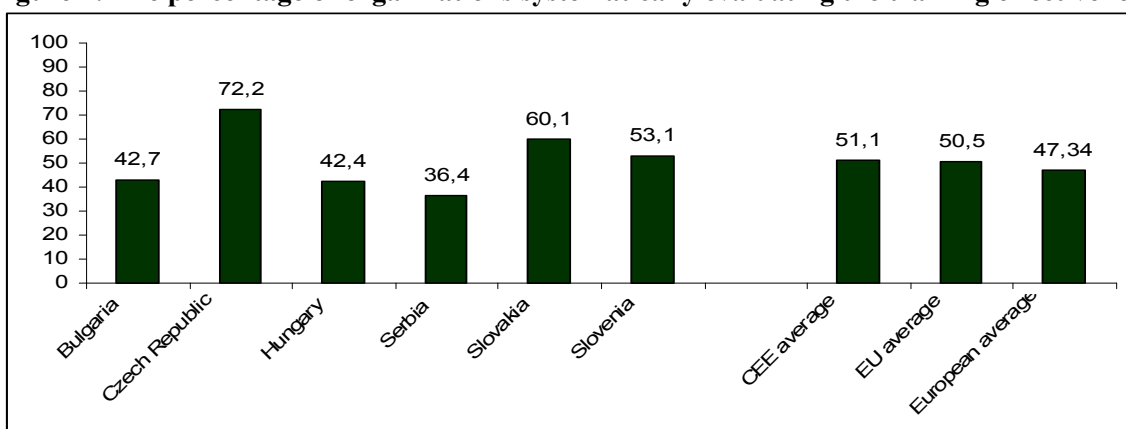
It is interesting to note, that the CEE average (6,89 days/year) of this T&D indicator is the highest among of our analyzed European samples. Namely while the average of all 23 European countries examined hardly exceeds (6,14) the 6 days/year the EU average falls below it (5,98 days/year) . In conclusion the rank of extensiveness of T&D practice is as follows:

- CEE countries,
- European countries,
- EU countries.

3.3. THE EVALUATION OF TRAINING EFFECTIVENESS

Figure 2 presents the obtained data on the percentage of organizations who systematically evaluate training effectiveness (Kirkpatrick, 1994). On average less than half (47,34%) of European companies evaluate the effectiveness of their training programs. The value of this indicator for CEE countries is a bit higher (51,1%), while for EU states is in between (50,5%). Among the analyzed CEE countries there are remarkable differences. In Serbia only 36%, while in Bulgaria and Hungary about 42% of companies evaluate their training programs, while from Czech Republic more than 72% of companies are reporting the usage of systematical training evaluation methods.

Figure 2: The percentage of organizations systematically evaluating the training effectiveness



Source: Cranet data and authors' calculation

Table 2 presents the techniques most commonly used for training evaluation.

Table 2: Techniques used to evaluate training (%)

	BG	CZ	HU	SRB	SR	SLO	CEE	EU	Europe
Training days	48	60	52	45	57	79	57	52	50
Meeting objective	63	88	86	83	76	87	80	80	78
Evaluation immediately after training	59	94	86	69	73	79	77	83	82
Job performance immediately after training	64	14	28	57	27	23	35	28	31
Job performance several months after training	69	21	30	50	37	37	41	33	33
Feedback from line managers	63	94	90	85	82	88	84	80	80
Feedback from employees	55	79	90	73	77	88	77	77	75
Return on investments	35	19	20	27	16	15	22	15	16

Source: Cranet data and authors' calculation

Based on the obtained data one can conclude that in the CEE region the techniques for the evaluation of training effectiveness can be characterized as mainly informal, because of the rank of these are as follows: feedback from line manager (84%), meeting objectives (80%), evaluation immediately after training (77%) and feedback from employees (77%).

In the countries of the European Union the most frequently used techniques create a bit professional approach about the care for effectiveness of T&D practices. The majority of companies namely use evaluation immediately after training (83%), meeting objective (80%) and feedback from line managers (80%). In the examined European companies the most commonly used techniques are the same as in the EU. Among the analyzed CEE countries, there is a difference in the usage of techniques for evaluation training effectiveness. In Bulgaria the most common technique is job performance several months after training (69%). In the Czech Republic the evaluation is immediately after training (94%). In Hungary, the most common evaluation technique is the feedback from the line manager (90%) and employees (90%). In Serbia and Slovakia feedback from the line manager (83% and 82%), while in Slovenia feedback from the line manager and employees are used in the same percent (88%). It must be noted that return on investment (Bohlander and Snell, 2007) is the least commonly used technique in all the CEE countries, just like in the EU and the examined European companies.

4. CONCLUSION

In the competitive and globalized world a highly- or multi-skilled, competent labor force becomes vital factor of reaching the organizations' triple-level objectives. Organizations have to focus on different on-site and off-site training programs for all employee categories. It falls within the HRM department's cognizance to analyze the need, design, sometimes execute and finally evaluate different training programs.

Due to its special context, HRM activities in the CEE region are different from those in the EU countries and even more distant from HRM practices in the US. Multinational companies and other organizations tending to cooperate with CEE partners have to be aware of the specialties of HRM activities in former socialist countries.

In this paper the authors focused on the training activity of companies from six CEE countries: Bulgaria, Czech Republic, Hungary, Serbia, Slovakia and Slovenia based on the Cranet research data from 2008/10. The archetype companies from these CEE countries spend between two and five percentages of their annual payroll costs on training. The CEE average is 3,52% – a bit behind the EU and European average of about 4%. Companies in the Czech

Republic and Serbia spend about 2% for training purposes, while in Slovakia employers are more generous as they invest almost 5 % of payroll costs on training. It can be stated that the importance of T&D activity expressed by the annual training budget is the lowest in CEE region compared to EU and other European countries examined. In the same time, there are significant differences among the six CEE countries in this aspect.

On average, the employees spend seven days on training in CEE, which is very similar to the EU and European value of six days. In Bulgaria, Slovakia and Slovenia professional staff, while in Hungary, Serbia and the Czech Republic managers spend the most time on training programs. The extensiveness of T&D activity is the highest in CEE region compared to EU and examined European companies. The effectiveness of T&D function is low, as on average only 51% of analyzed companies in CEE region systematically evaluate their training programs. In Serbia, Bulgaria and Hungary this indicator is about 40%, while in the Czech Republic it is more than 70%. In CEE region, the T&D evaluation is mainly informal, as the most common methods are feedback from the line manager, meeting objectives, evaluation immediately after training and feedback from employees.

Even though in all six CEE countries the modern HRM approach is accepted, there is still space for development. Improving the importance and extensiveness of training activity as well as its effectiveness may contribute to the more effective organizational knowledge acquisition, to the more advanced HRM activities and to the companies' overall success, too.

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HUMAN RESOURCES MANAGEMENT AND QUALITY MANAGEMENT SYSTEMS IN PUBLIC OFFICES ON POLISH EXAMPLES

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Summary: The article concerns a theme, which is present both in private as well as public sector. Introductory part is about the differences in activities of these sectors. The second part is a brief explanation of contemporary meaning of the notion Human Resources Management. It is followed by the analysis of the development of quality management systems implementation in public offices in Poland. In the next part, more closely, the aspect of human resources in quality management systems on two examples of Polish public offices is analysed: one of state administration and one of self-government municipal administration. There is also a brief presentation of the total quality management theme in the context of public offices. On the top of that, the author will formulate conclusions and potential fields to be developed by the author in the future.

Keywords: HRM, Quality Management Systems, Public Offices,

1. MANAGEMENT OF PRIVATE ENTERPRISES AND PUBLIC OFFICES

In contemporary management, private sector and public sector are using mutually their experiences. However, there are substantial differences in activities of these sectors (Table 1.). It concerns their goals, legal aspects, time perspectives and income sources.

Table 1.: Differences in activities of public and private sector

Differences in activities:	Public sector	Private sector
<i>Goal</i>	Best possible execution of public tasks	Highest profit
<i>Legal aspects</i>	Every activity must have its legal basis	No activity is to be in disaccordance with legal order
<i>Time perspective</i>	Precise term up till new elections	Generally not diminished
<i>Income sources</i>	First of all taxes	Revenues coming from sales of products

Source: Głębocki (2010) p. 11

The research carried out by European Institute of Public Administration brought results, which confirm that the differences between the activities of public and private sector are smaller and smaller but they still exist and the sources are always the same. Clerks in public offices act in the environment based on strict regulations and must take into account also the influence of politics and different lobbies. This is resulted by differences in setting out goals, increased role of control and in relation to this diminishing the autonomy of employees. The above-mentioned facts have effect on smaller innovation attitude, diminished determination in goals realization, and the higher dislikes towards risk. Characteristics as care for image of employer, client satisfaction orientation or change attitude may be found both in private and public sector but sometimes with different level of intensity (Rostkowski T. 2012, p. 212). There are the above differences however taking that into account the experiences of private sector could be used in public offices and vice-versa.

2. HUMAN RESOURCES MANAGEMENT

It is not the goal of the article to define precisely the notion of Human Resources Management (HRM). However, it could be underlined that there are a number of problems related to this such as e.g. the relation between HRM and Personnel Policy. These two notions were used as synonyms for some time. In the 80-ies, the meanings split up. HRM became wider notion related also to the strategy of the organization and comprising the following:

- Obtaining the employees;
- Assessing work effects;
- Training of employees;
- Wage policy (Polish Open University, 2006, p. 3).

The similar scope of the HRM definition may be found also in documents which are worked out by consulting firms in private sector: "Human Resource Management is the organizational function that deals with recruiting, managing, developing and motivating people, including providing functional and specialized support and systems for employee engagement and managing system to foster regulatory compliance with employment and human rights standards" (Strandberg C., 2009, p.2).

The definitions of HRM could be different in details, but in general, they are similar. One should nevertheless remember that there are some substantial differences between HRM in private and public sector such as e.g. higher wages in private sector and more stable employment in public sector.

3. BEGINNINGS OF QUALITY MANAGEMENT SYSTEMS IMPLEMENTATION IN PUBLIC ADMINISTRATION IN POLAND

First initiatives concerning quality management systems in public offices in Poland were undertaken by Cracow section of the PF ISO 9000 Club as early as in 1995. In the effect of these initiatives Cracow Net of Quality Promotion Program under the patronage of the Polish Ministry for Industry and Trade had been established. In 1996 the net comprised nine regions of the Southern Poland. The net set its goals as:

- Implementation of ISO norms and TQM in the state enterprises;
- Introduction of TQM in the offices of state regional administration;
- Application of computer system for documents management and information circulation with regard to requirements of ISO 9000 norms.

Main participants of the above net apart from the state regional authorities were: higher schools, enterprises, Cracow section of ISO Club and department of Industrial Policy of the Ministry for Economy (Wawak, 1997, p.114).

ISO 9000 norms could be treated as the first stage of TQM strategy implementation. History of their origin goes back to 1987 when the International Organization for Standardization with the seat in Geneva produced its first version. In 1994 and 2000 new versions had been issued which took into account up-to-date experiences and new tendencies in organization management. The current version propagates the process attitude in organizations. The ISO norms could be used in different organizations: business, public and non-governmental ones. The confirmation of the use of ISO 9000 norms set is a certificate ISO 9001:2000 issued by the authorized certificate unit (Papaj, 2008, p. 116).

First certificate ISO 9001 given to public administration unit was the one consigned to the 15 thousand inhabitants Canadian city Saint-Augustine de Desmonres which belongs to the

municipal community of Quebec. It was in 1995. From that time on the interest in the implementation of quality management systems according to ISO norms and philosophy of management through quality (Total Quality Management - TQM) is increasing. In Poland, the state of knowledge and level of engagement in the implementation of quality management systems is not sufficient. In many public offices on different levels of administration hierarchical structures, inefficient communication system, dispersed activity procedures, weak contacts with socio-economic environment dominate. In 1999, the office of Polish Prime Minister launched the program "Quality Management in Public Administration". It was common undertaking of Umbrella Project and Prime Minister's Office with financial support of Development Program of United Nations. Thanks to intensive propagation in 2004, 70 self-government public offices were rewarded with ISO certificate. Among the first were the offices of the following cities: Szczecin, Dębno, Polkowice, Wrocław (regional authorities office), Zgorzelec, Kamienna Góra, Wałbrzych, Dzierżonów and Wieluń (Bugdol, 2004, p.113).

Standards comprised by the ISO norms are good basis for pro quality policy in public offices. Among these standards, the primary significance have those configured in form of procedures. The public office must prove the following procedures (among others):

- Supervision over documents;
- Internal audit;
- Corrective actions.

The basic criteria for ISO norms, which are important base for further development of quality management systems, are:

- The frame of quality management system;
- Responsibility of managers;
- Resources management;
- Realization of product;
- Measurements, analysis and improvement. (Papaj, 2008, p. 117.)

In improvement of a quality management system in public offices the proper set of measurements is very important. For example, the following measurements could be used:

- Number of new implemented procedures (management field: principles of creation and introduction of procedures);
- Number of carried out supervisions in a given year (management field: supervision of quality management system by top managers);
- Number of internal audits (management field: internal audit);
- Number of corrective actions being carried out (management field: corrective actions)
- Number of decisions issued in accordance with administrative code and number of annulated decisions (management field: issuing decisions);
- Number of interpellation of city council members concerning delays in materials supply (management field: organization of city council sessions);
- Number of incorrectly addressed correspondence (management field: documents circulations);
- Number of shifts between sectors in budget (management field: working out budget project);
- Number of invoices paid after the term (management field: realization of financial obligations);
- Financial resources gained and spent with regard to acquisitions and sales of real estate in relation to budget predictions (management field: acquisitions and sales of real estate);
- Number of annulated decisions of permission for construction (management field: issuing decisions of permission for construction);

- Number of annulated decisions on conditions for construction and use of terrain (management field: issuing decisions on conditions for construction and use of terrain);
- Number of labor court judgements on incorrect dissolution of labor legal relationship (management field: human resources management);
- Number of investments which are started in relation to all planned investments for a given year (management field: preparation of investment for realization);
- Percentage number of investments in which the contract execution terms were crossed in relation to all realized investments (management field: supervision conduction on realization of investments);
- Number of annulated decisions in relation to all refusal decision of access to public information (Management field: supply of public information in accordance with the law on the access to public information);
- Number of court judgements positive for public unit in relation to the assumptions (management field: city representation before judicial organs)(Papaj, 2008, pp. 118-119).

Of course, the above catalogue constitutes only exemplification of measurements in quality management system. One could add additional measurements such as number of waiting days for decision on permission for construction (management field: issuing decisions of permission for construction), number of waiting days for decisions on conditions for construction and use of terrain (management field: issuing decisions on conditions for construction and use of terrain), improvement in percentage of cover of the city surface with local spatial plan (management field: spatial management). Another example could be the number of satisfied clients of city office in the survey (management field: services supply by the public office).

4. HRM IN QUALITY MANAGEMENT SYSTEMS IN POLISH ADMINISTRATION

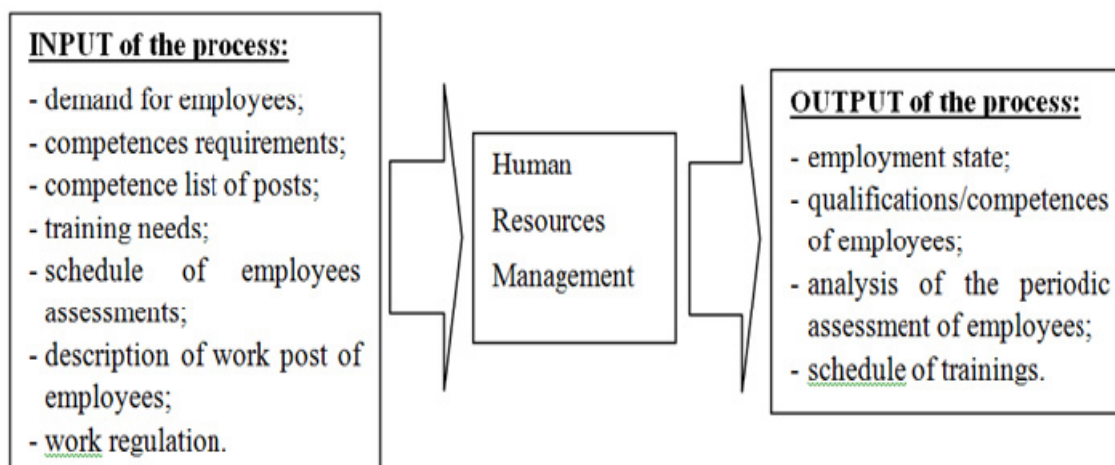
HRM is one of the management fields regulated in quality management systems. The Polish examples concern both the state and self-government administration. In the Second Tax Office in Gliwice (which is part of state administration), the book on quality management systems was worked out. Within the part "Processes of Quality Management System" HRM constitutes part 6.3. So it is placed as one of the first three processes what responds to the important role of HRM in management of public offices in general. First two parts are about: supervising/improvement of quality management system and planning of functioning of the office. The goal of the process was formulated as follows: assurance of the proper knowledge level of employees who work in fields, which do influence the quality level of services of Tax Office. The scope of the process in turn was described as harmonizing procedures concerning the recruitment of employees, assurance of personnel training to improve its competences and consciousness on functioning quality management system.

In the mentioned book of Gliwice Tax Office measurements were also described:

- Measurement of employees qualifications improvement (number of realized trainings/number of planned trainings);
- Measurement of employees assessment (number of positive notes/overall number of notes);
- Measurement of education improvement (number of employees with higher education/number of all employees);
- Measurement of external trainings effectiveness (number of positive notes/overall number of notes (E. Michalak-Bartłomiejczyk, 2006, p. 18).

The input and output processes within the quality management system in the Tax Office in Gliwice is illustrated in Figure 1.

Figure 1: HRM – input and output of the process within the scheme of quality management system of Tax Office in Gliwice



Source: E. Michalak-Bartłomiejczyk, 2006, s. 18.

Another example of HRM integrated in quality management systems is of municipality of the city of Płock in central Poland – the example of self-government administration. themes concerning the competences and trainings of the employees are regulated in a separate document “Improving professional qualifications of employees of Płock City Office” (M. Uchwał, 2011, p.16). In the book of integrated management system of Płock City Office the goal of the HRM process has been described as ensuring human resources for the appropriate tasks execution, improvement of the level of knowledge and competences of employees, adaptation of newly hired employees to the work at the city office. Relation of the HRM process with the whole integrated management system was described in turn as improvement of qualifications of the office employees (M. Uchwał, 2011, p. 18.).

In another part of the book of the Płock city office there is such a statement: human resources are the most important part of capital of the organization and they decide about its development. Realization of the function of social capital management relies on planned and purposeful choice and coordination of specific elements of personnel system and their fitting into the organization strategy. HRM process was made a separate process due to better identification of needs and better use of existing potential through improvement of knowledge level and skills of employees, realization of programs for personnel, preparation of new employees for the best use of their potential for the benefit of the organization (M. Uchwał, 2011, p.21).

In case of both analysed examples, Gliwice Tax Office and Płock City Office HRM had an important role in quality management system. In both researched cases improvement of competences of the employees was at the front of the process of HRM. Only in case of Płock City Office there is connection between HRM and organization strategy strictly expressed. In case of Gliwice set of measurements for HRM within quality management system had been worked out. For the purpose of this article additional document “Improving professional qualifications of employees of Płock City Office” was not analysed – it is possible that the similar set of measurements of HRM within quality management system is placed for Płock City Office in this document.

5. HRM AND TOTAL QUALITY MANAGEMENT IN PUBLIC OFFICES

Among the fundamental principles of total quality, one can name also establishing a human resource management of which main objective is to enhance the motivation for quality and participation. Looking more precisely introduction of the model of Total Quality Management in public administration and services involves greater degree of difficulty than in case of private enterprises. Among the principles, which support the introduction of Total Quality Management it should also be mentioned the following statement concerning some aspects of human resources management: “improving the ambient environment where the clerks are developing the activity through collaboration and training of personnel. Establishing jobs is done by taking into account the latest knowledge related to motivation and leadership quality” (Diaconu A. 2009, pp.1581-1582).

6. CONCLUSIONS

There are differences between private and public sectors however taking that into account the experiences of private sector could be used in public offices and vice-versa. Human Resources Management became over last decades broader notion than Personnel Policy. Quality Management Systems are used in public administration from the mid 90-ties. In Poland, the state of knowledge and level of engagement in the implementation of quality management systems is not sufficient. In case of both analysed examples, Gliwice Tax Office and Płock City Office HRM had an important role in quality management system. Total Quality Management is more difficult to introduce than any other quality management system.

For the purpose of broader paper on the theme of HRM and Quality Management Systems in public offices on Polish Examples the author plans to develop the following:

- to analyse in more depth (and on more examples) the role of HRM in quality management systems in public offices in Poland;
- to analyse the problem of the use of Total Quality Management in public administration
- to analyse some examples of the use of TQM in Polish public offices.

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IT-TOOLS TO SUPPORT KNOWLEDGE MANAGEMENT IN THE PERSONNEL RECRUITMENT AND SELECTION PROCESS

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Summary: The personnel recruitment and selection (R&S) process has a fundamental value to an organisation. During the process, the following information is gathered: the situation on the labour market, the candidates' features, and expectations towards an employer. The collected and properly processed information becomes the base for developing specific knowledge. It is worth mentioning that the use of this knowledge does not refer to the mere employment of a suitable individual, it can also constitute the basis for implementing changes in particular elements of the HR function. The above mentioned facts suggests that there is a need for conscious and consistent knowledge management in the area of R&S. It has been accepted that knowledge management includes performing a cycle of actions, such as gaining knowledge, storing knowledge and implementing changes on the basis of that knowledge. Knowledge management should be "accompanied" by the use of IT tools that are becoming increasingly important in the process of collecting and processing data. Taking the above into account, it has been agreed that it is worth considering the possibility of using IT tools in the process of managing knowledge – at the stage of R&S. The scope of their usage has been presented based on the results of empirical research conducted in 2011 among 96 large companies located in Poland.

Keywords: recruitment, selection, knowledge management, IT tools

1. INTRODUCTION

The personnel function (HR function) is one of the integral functions present in every organisation and refers to the activities related to the employees and their issues. Its essential components include personnel recruitment and selection (R&S), placement, development, remuneration and promotions.

One may argue that the personnel recruitment and selection process has a fundamental value to the organisation. It includes attracting job candidates and assessing their competencies. As the result of R&S an organisation has adequate human potential. During the process, the following information is gathered: the situation on the labour market, the candidates' features, and expectations towards the employer. Some information is linked to the recruitment and selection process (e.g. the effectiveness of the method used).

The collected and properly processed information becomes the base for developing specific knowledge. It is worth mentioning that the use of the knowledge does not refer to the mere employment of the suitable individual. Additionally, this knowledge can constitute the basis for implementing changes in particular elements of the HR function.

The above suggests that there is a need for a conscious and consistent process of gathering information during the process of R&S as well as a wider outlook on the potential possibilities of applying this knowledge. The solution is the concept of knowledge management. It has been accepted that knowledge management includes performing a cycle of actions, such as gaining knowledge, storing knowledge and implementing changes on the basis of that knowledge.

The definition of knowledge¹³ implies that man is the only subject of developing knowledge, because man is the only resource of the organisation capable of learning, developing potential and conceptual thinking. However, knowledge management should be “accompanied” by the use of IT tools.

In the current economic reality, the ‘minute competitiveness’ model has become dominant giving economic opportunity only to those companies that are able to analyse the incoming information streams faster and more efficiently (Kozłowski, 2007, p. 46). IT tools are becoming increasingly important in the process of collecting and processing data. The main benefit resulting from applying such tools is shortening the R&S time through facilitating the communication process with the candidate and the work flow among all the individuals involved in the process. Employees responsible for software development in a company providing, amongst others, systems for HR departments claim that these applications should now be used to support the HR policy, with a particular focus on R&S (<http://gospodarka.gazeta.pl/gospodarka/1,52741,4185707.html>, 19.10.2011).

Taking the above into account, it has been agreed that it is worth considering the possibility of using the IT tools in the process of knowledge management – at the level of personnel recruitment and selection¹⁴. These tools have been related to particular stages of the knowledge management cycle. The scope of their usage has been presented based on the findings of empirical research conducted in 2011 among 96 large companies located in Poland. The research used the quota selection according to industry¹⁵. They were performed within the ‘Internship as the Scientist’s Success’ project, financed by the European Social Fund. The respondents were HR employees actively involved in the personnel recruitment and selection process.

2. KNOWLEDGE MANAGMENT IN R&S AND THE POSSIBILITY OF USING THE IT TOOLS IN THIS AREA

In many reference books, there are a large number of knowledge management definitions. As shown in the introduction to this study, it is assumed that knowledge management is connected to completing the cycle presented in Figure. 1.

The stages of knowledge management, which are contained in Figure 1, can also be related to the different kinds of knowledge occurring in a company. Generally, knowledge management should be considered by paying attention to:

- the functioning of the whole organization,
- the functioning of the particular organisational units,
- the cross-organizational processes, i.e. through the different organizational units.

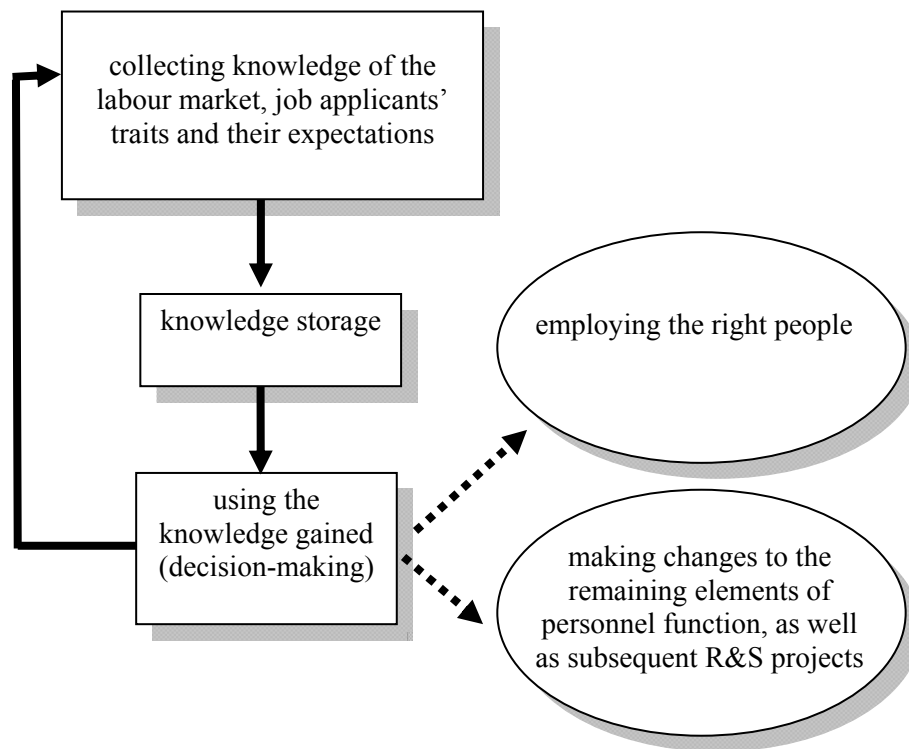
Therefore, it should be emphasized that knowledge management at the R&S level should be a part of the overall system of knowledge management in a company.

¹³ Knowledge is defined as ‘ information combined with experience, context, interpretation and reflection’ (Davenport, Long, Beers, 1977, p. 1)

¹⁴ It refers to commercial tools adjusted to the needs of a particular enterprise. These IT solutions can be delivered by a software development company or developed internally. The subject therefore excludes functionalities offered by some job portals.

¹⁵ Quota selection was based on the proportions featured in the report referring to a separate study, conducted by PKPP Lewiatan in cooperation with Deloitte (http://www.muratorplus.pl/biznes/raporty-i-prognozy/kondycja-duzych-firm-w-polsce-w-czasach-kryzysu_64588.html, 19.10.2011).

Figure 1. The cycle of knowledge management in the personnel recruitment and selection process and the results of completing this cycle



Source: own work

According to the definition proposed by the Institute for Production System and Design Technologies in Berlin, knowledge management describes the methods, instruments and tools which in a holistic approach contribute to the course of the main processes with a part of the knowledge (more see Mikuła, 2001, p. 59). These methods or tools can be generally divided into those which:

- a. allow the processes contained in the cycle of knowledge management to be automated,
- b. fall into the “human resources management” category, effecting a change to the personnel’s attitude towards knowledge.

Information technologies belong to the first group mentioned above. According to J. Jashapara, the most popular IT tools making up the global systems of knowledge management are (Jashapara, 2006, p. 370):

- document management systems – making information available to the right people at the right time,
- decision-making support systems, which take place through data collecting and analyzing,
- team support systems,
- managerial information systems – addressed to top managers,
- workflow management systems,
- customer relationship management systems – helping expand knowledge of the customers’ individual preferences.

Table 1 shows IT tools related to the particular stages of knowledge management in R&S. Emphasis is put mainly on the primary goal of management, namely on employing an applicant with adequate capacity. As pointed out in fig. 1, there are also other possibilities to exploit knowledge such as making changes to the remaining elements of HR function (on the basis of the expectations postulated by applicants) and modifying the process of personnel recruitment and selection itself (on the basis of previous learning experiences).

Table 1: The IT tools supporting a completion of the knowledge management cycle as part of personnel recruitment and selection

The stage of knowledge management	The IT tools supporting a completion of the particular stage
knowledge collection	<ul style="list-style-type: none"> ▪ corporate recruitment websites containing not only job offers but also application forms, ▪ catalogues (databases) of application documents, ▪ on-line tests (in knowledge, skills, job predispositions) used in the selection process,
knowledge storage	<ul style="list-style-type: none"> ▪ database applications (cataloguing application documents), ▪ systems supporting team work in recruitment projects,
knowledge use	<ul style="list-style-type: none"> ▪ pre-selection tools for gathered applications, ▪ a tool creating an applicant's ranking at the end of the recruitment and selection process.

Source: own work

In this way, it should be found that knowledge importation is favourably enhanced by employing a tool such as an application form. It forces an applicant to provide information in which an employer is interested (e.g. education, work experience, expectations about work and salary conditions).

The basic requirement for applicants of different positions is possessing defined knowledge and occupational skills. The indicated competence can be checked using, amongst others, IT systems. These can be test-dedicated tools or e-learning software, which – so to speak “as the opportunity arises” – allows checking the level of competence in a particular thematic field. IT tools can also help determine the level of intelligence, personality type, and occupational predispositions of an applicant. Many so-called psychometric tools for selecting job applicants have an electronic form (more see Piwowa-Sulej, Grajewski, 2010, p. 92-100).

Using information technologies generally facilitates knowledge codification and storage. Codification allows the significant reduction of knowledge distortions occurring in the traditional procedure of information sharing (through interpersonal communication). Every authorized employee can obtain from the knowledge base as much knowledge as they need as far as their permissions allow them. It is important for all interested parties to have access to the knowledge they need. That is why systems facilitating team work within personnel recruitment and selection projects are significant tools. Depending on the requirements for a given position, for which an applicant is searched, the HR personnel, line managers (management at different levels), and board will take part in the selection process.

Using knowledge means making the right decision. The decision-making process can be speed up with tools serving to preselect the filed applications or creating rankings of potential employees. Thanks to the use of the application form on the corporate website, shown above, applicants are forced to provide answers to the most important selection questions. Next, the applications meeting the basic job requirements can be selected in an easy way. Systems supporting verification of the applications' documents (CVs, cover letters) by searching databases with the applicants have also appeared on the information technologies market, supporting the human resources function. Thanks to these, application documents, which prove that an applicant does not meet the basic selection requirements, are quickly rejected from the company's own database.

The figure presented above should be treated as a proposal that should be updated along with development in the field of information technology. The needs expressed by the employees of HR departments are also significant. In empirical research – shown in the next part of the

article – emphasis was then put on both the popularity of using certain information solutions and the reasons behind it.

3. THE SCOPE OF USING IT TOOLS IN THE PERSONNEL RECRUITMENT AND SELECTION PROCESS – THE RESULTS OF EMPIRICAL RESEARCH

The synthetic results of research on the scope of using IT tools in the personnel recruitment and selection process are shown in Table 2. The research proved that by far the largest reserves (shortages) in the scope of using IT tools lie in the selection process. It mainly concerns electronic tools serving to conduct job interviews and to verify knowledge, skills and occupational predispositions of the applicants.

Table 2. The popularity of using company IT tools serving to recruit and select personnel

The scope of using an IT tool	The popularity of using (% of the companies using a given tool)
cataloguing (the databases) and preselecting the applications filed via the application form	21%
team work in recruitment projects (human resources department and other interested parties)	35%
e-learning tools to carry out knowledge and skill tests	8%
knowledge and skill tests exclusively dedicated to the personnel selection process	18%
personality, intelligence, occupational predispositions tests	13%
online interviews with the applicants	7%

Source: own work on the basis of the results of research done

Significantly, the majority of the companies researched launches over 20 personnel selection projects every year. It then seems that the IT tools – according to the reasons for using thereof presented above – would significantly facilitate the process of gathering, storing, and using knowledge of the applicants and thereby contribute to employing the right persons.

As shown earlier, the respondents were also asked the reason for not using information technology. The answers to this question are provided in Table 3.

Table 3. The most frequent reasons for not using company IT tools serving personnel recruitment and selection

The scope of using an IT tool	The most frequent reason	Percentage of the respondents providing a reason
cataloguing (the databases) and preselecting the applications	no need	38%
team work in recruitment projects (human resources department and other interested parties)	no need	46%
e-learning tools to carry out knowledge and skill tests	no need	68%
knowledge and skill tests exclusively dedicated to the personnel selection process	no need	46%
personality, intelligence, occupational predispositions tests	no need	46%
online interviews with the applicants	no need	67%

Source: own work on the basis of the results of research done

Research indicates that the main reason for not using IT tools in every scope is not the lack of appropriate offers or the expense of purchasing software, but not feeling the need to use these tools.

The presented approach to the selection of applicants for a job corresponds to the results of research conducted by A. Sokołowski, concerning the use of information technology in the process of diagnosing the predispositions of decision-making managers. 22% of the respondents – the HR experts – found the identification of the shown managerial competence insignificant (more see Sokołowski, 2011, p. 31-34).

4. CONCLUSIONS

A modern company to be fully competitive should fulfil the following conditions:

- possess adequate knowledge,
- be able to use this knowledge appropriately.

It concerns any kind of knowledge occurring within a company – significant for making the right business decisions.

In this article, the significance of knowledge management at the level of personnel recruitment and selection was stressed. The indicated elements of the human resources function are fundamentally important for a company. As a result of these, it has adequate human resources at its disposal.

IT tools can contribute to an increase in effectiveness of completing the knowledge management cycle at the R&S level through facilitating and speeding up the process of collecting information on the applicants' qualifications required for a job as well as their expectations towards employers and preselecting the applications.

In this article, the author's own classification of these tools was introduced with reference to the levels of the knowledge management cycle taking the main goal of this management – employing the right applicants – into consideration. The results of empirical research concerning the use of particular IT tools were also presented. Research indicates decreased popularity of IT tools supporting job applicant selection. The fact that the main reason for not using IT tools within the different scopes of the personnel selection is not feeling the need to use modern technologies by the employers of the HR departments is shocking.

To sum up, it should be stressed one more time that the significance and complexity of knowledge management results from the interdisciplinary nature of this idea. Not only does success in this matter depend on the employed information solutions but also on the people who use them.

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SPECIAL DEMANDS ON THE PROJECT MANAGERS, HOW TO TEACH THEM?

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Summary: Management skills and the use of different management techniques and methods basically influence the activity and future success of the project managers. The rational time, resource and cost management, the correct decision-making process and the selection of the optimal versions are essential in investments. The first aim of this paper is to present and prove how the different methods and computer programs can support the solution of technical-economic tasks in agricultural projects. Some of the most important skills, methods and management techniques are briefly presented. There are a lot of teaching methods in education to inspire students for individual learning, such as, the project method, and the problem-based learning (teaching with cases), etc. The project method is the execution of projects in which a student, or group of students, undertakes to gather and integrate data relevant to some problems. The variants of problem-based learning include the case method, the guided design and simulations. The focus is on the case methods, which are intended to develop students' ability to solve problems using knowledge, concepts, and skills relevant to a project. The second aim of this paper is to characterize these teaching methods in engineering management educational programmes based on literature and gathered experiences.

Keywords: functional management areas, project management skills, teaching methods

1. INTRODUCTION

The project managers' professional knowledge is very important, which means a deep theoretical background and practical skills in agriculture, industry or in services. The technological knowledge is also important because technical resources and equipment play an important role in the whole process of a project. All of these are really necessary, but not enough to manage a complex project successfully, because economic and general management knowledge is also badly needed.

Management skills and the use of up-to-date management techniques and methods basically influence the activity and future success of the young project managers. There is an increasing need to use different types of software for the rational resource and cost management, the appropriate utilization of machinery, the correct decision-making in investments and select the optimal version (Belcourt et al., 2000).

The first aim of this study is to present and prove how the different methods and computer programs can support the solution of technical-economic tasks in agricultural projects. A detailed knowledge of general management is very useful, but a wide range of functional management areas is also essentials. All of these areas have different characteristics and an experienced project manager has to know most of them. In a case of a project these functional management areas are not separated they usually appear as complex tasks. It is not easy to list the most important functional management areas, because they are all necessary ones, but in this paper six of them are examined.

Concerning the successful project management the teaching and improving of these management skills are important tasks. It is especially difficult in the basic (graduate) level of

studies when the students do not have enough experiences in managing and completing projects (Hartman, 1999). In the different courses, it needs different approach, teaching methods and case studies. One of the important goals of education and training is to help students develop the ability to continue learning after their formal education is complete, thus it is reasonable that they should have supervised experience in learning independently. They should gain experience in which the instructor helps students learn how to formulate problems, find answers, and evaluate their progress themselves. We might expect the values of independent study to be greatest for students of high ability with a good deal of background, since such students should be less likely to be overwhelmed by difficulties. Beside this, motivation and work habits are also very important. The second objective of this paper is to characterize these teaching methods in engineering management based on literature and gathered experiences.

2. MATERIALS AND METHODS

Concerning the main objectives of this paper - it is an interesting question - when and how do we teach the six functional management areas for our students, for the young project managers. On our Faculty we offer four different BSc programmes for our students:

- Mechanical Engineering,
- Agricultural and Food Processing Engineering,
- Mechatronical Engineering and
- Engineering Management.

Engineering Management is a relatively modern teaching programme on our Faculty, which provides complex knowledge and skills for the students. Our Institute has more than ten years teaching experience on that field. Comparing the different Hungarian and international curricula of the different programmes and courses it can be seen that the widest knowledge in economics and in general and functional management is provided for engineering managers. Our teachers and students were interviewed about it.

There are a lot of teaching methods in education to inspire students for individual learning:

- Project method,
- Independent study,
- One-on-One teaching,
- Problem-based learning:
 - Case method,
 - Guided design,
 - Simulations.

I would like to focus mainly on the project method, and case method, within problem-based learning. The case methods are also examined which are intended to develop students' ability to solve problems using knowledge, concepts, and skills relevant to a project. Do our colleagues use cases or other problems in teaching? Is problem-based learning a part of our teaching strategies? Our staff members and engineering management students were interviewed about it.

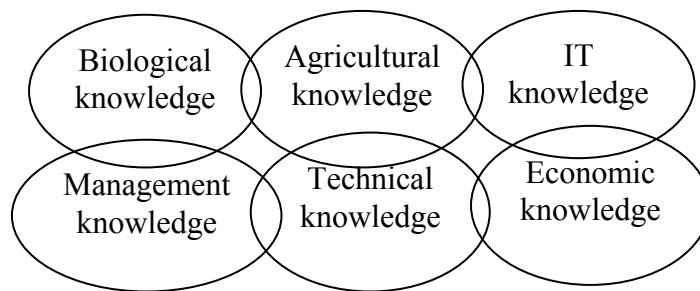
3. RESULTS AND DISCUSSIONS

3.1. THE IMPORTANCE OF DIFFERENT SKILLS

The project managers' different skills basically influence the final result and success of the project. An agricultural project is a very complex task with really different technologies and activities. The planning of the long-term objectives and the organization of the operative tasks all need knowledge, skills and experiences. The appearance of new materials, equipment, devices and technologies require more time to learn them and rationally use them according to the different rules. There is a great number of difficult decisions have to be made concerning technical resources, when we choose, buy or lease them. Applied information technology must be also mentioned as an important area. Without this basic knowledge it is impossible to make the optimal decisions.

All of these are necessary, but not enough to manage successfully an agricultural project. Economic and general management knowledge is also badly needed (*Figure 1*). Strategic-, marketing-, cost-, machinery management mean the most important areas. Management skills and the application of the different management techniques and methods determine the activity and future success of the whole project (Goldratt, 1997).

Figure 1. Managers' specific knowledge to manage agricultural projects



It is really difficult to learn and obtain all these skills, because these scientific areas are rather different ones. One has to have a wide range of interest to learn all of them.

The science of *biology* and *agriculture* can be interested for those who are really close to nature and environment. Mostly they like animals and rural life, but they are not fond of machines, engines or the marketing mix. They do not like manage people either. *Technical science* is hard to learn. Mathematics, physics, mechanics, technical drawing, design, the operation and repair of machines are the basic courses. They usually like engines, vehicles, industrial equipment and the connecting activities very much, but they are not necessary close to nature and hate applied economics and management because they consider them as unnecessary subjects. *IT* is again a very special area, which one has to like and understand.

Economics and *management* is popular today. Many young people choose this field of science all over Europe. They learn macro- and micro-economics, law, finance, marketing, tourism, rural development etc. Most of them like it because it seems to be interesting for them and they try to become as soon as possible a well-paid manager of a company. It is not sure that they like agriculture or they are not fond of machines except their cars. The level of personal motivation to obtain this complex knowledge is changing on a wide range.

3.2. THE ROLE OF MANAGEMENT SKILLS

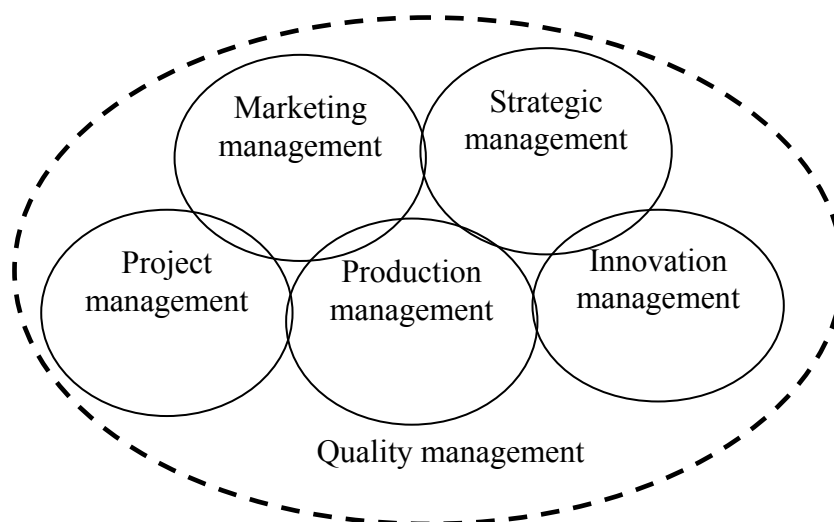
A detailed knowledge of general management is really useful, but a wide range of functional management areas also play important role. All of these areas have different characteristics and an experienced project manager has to know most of them. In a case of an agricultural project these functional management areas are not separated they usually appear as complex tasks. It is not easy to determine the most important functional management areas, because they are all necessary ones, but the following six of them are taught for engineering managers on a BSc or Msc level (*Figure 2*).

Some typical techniques and methods of the following functional management areas are as follows:

- *Marketing management*: Students mostly like this course and they think it is necessary for them (*e.g. marketing mix, PEST analyses, SWOT analyses*).
- *Strategic management* Hungarian enterprises do not pay much attention to strategic planning which makes their situation hard in a crisis. This course is taught on MSc level. (*e.g. BCG, GE Mc Kinsey*).
- *Project management*: Engineering management students learn it on a BSc and MSc level, mostly they enjoy the classes (*e.g. Gantt-chart, CPM/PERT, WBS*).
- *Production management*: Students find some parts of the course material really hard to learn and understand but they do believe that they need this knowledge (*e.g. MRP, TQM, JIT, FMS, CIM*).
- *Innovation management*: Students like it, mostly they understand why they have to learn it, some groups learn it as Technical Development (*e.g. Brain storming, Philips-66, Delphi*).
- *Quality management*: It is an important course of the curriculum, most of the students are interested in it (*e.g. PDCA, Kaizen, Poke-Yoke, QFD*).

Information management, change management and human resource management are also very important areas so they are mostly taught as parts of the General Management course.

Figure 2. Functional management areas (Kocsis et al., 2002)



Project management is a special bridge between strategic and operative management. That is why it has special techniques, methods, approach and requires special skills as well. Relying upon Görög's (2006) findings *Figure 3*. shows the structure of management skills.

There is no need to characterize all the skills so I will choose one or two of them from each group:

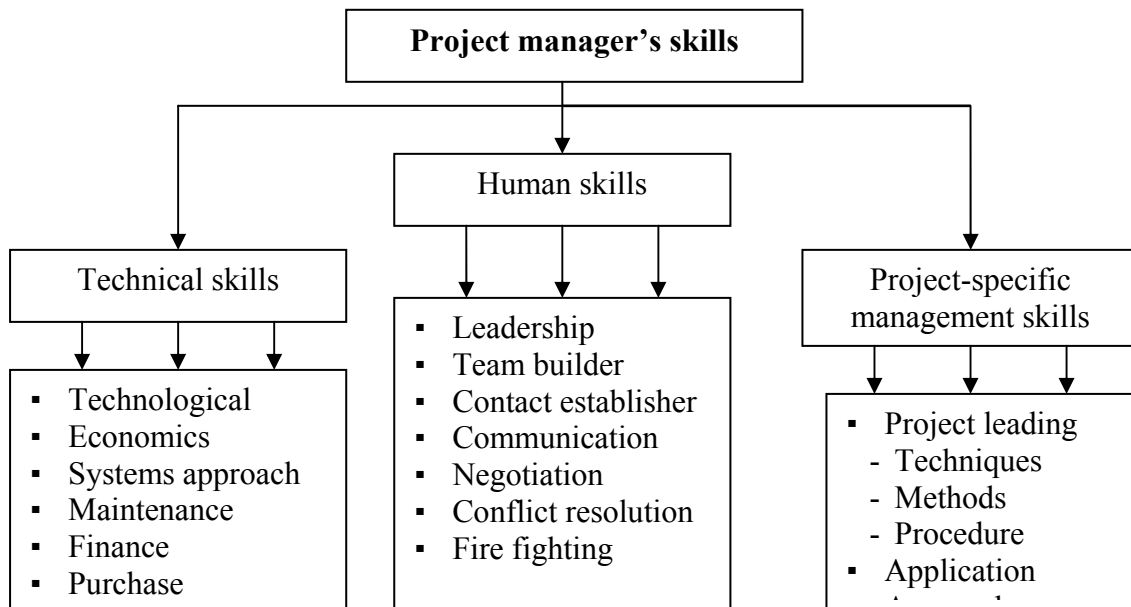
- *Technical knowledge* the project manager (PM) is not expected to have an expert's knowledge of each of the technologies that may be germane to the project. The PM should be able to explain the current state of the project, its progress and its problems to senior management. He should also be able to interpret the wishes of management and the client to the project team.
- *Systems approach* to be successful the PM must adopt the system approach. The project is a system composed of tasks which are, in turn, composed of subtasks, etc. The system, a project, exists as a subsystem of the larger system, a program that is a subsystem in the larger system, a company, which is...etc. The PM must understand the influences and their impacts on the project and its deliverables.
- *Communication* the PM must be a person who can handle responsibility. The PM is responsible to the project team, to senior management, to the client, and to anyone else who may have a stake in the project's performance or outcomes. Much project communication takes place in meetings that may be run effectively if some simple rules are followed. In virtual projects much communication is via high technology channels. Above all, the PM must keep senior management informed about the current state of the project.
- *Negotiation* the acquisition of resources requires negotiation. Dealing with problems, conflict, and fires requires negotiation and conflict resolution. The same skills are needed when the PM is asked to lead the project to a successful conclusion – and to make the trade-offs required along the way.
- *Techniques* for new PMs, training in win-win negotiation is as important as training in PERT/CPM, budgeting, project management software, and project reporting.
- *Methods* several different management methods are used by PMs in strategy oriented project management one of them is the WBS.

A project manager without these skills cannot be successful. In addition, the PM should be a leader, and adopt a participatory management style that may have to be modified depending on the level of technological sophistication and uncertainty involved in the project. Another critical project management skill is the ability to direct the project in an ethical manner (Meredith – Mantel, 2000).

3.3. THE ROLE OF EDUCATION

The large scale of different skills listed above have to be taught for the future managers. Our colleagues usually pay much attention to use the different teaching methods to teach engineering manager students during their university studies (graduate level).

Figure 3. Project manager's skills



3.3.1 Project method

The student who completes a project often has a sense of mastery going well beyond that of completing a conventional assignment. Students working on a project have to solve real problems and to use their knowledge in new ways – characteristics of learning situations that both motivate and facilitate more lasting learning.

- Projects sometimes fail to work well. *What can we do to increase the probability of success?*
 - Be sure the student has a clear question, problem, or goal.
 - Help students be explicit about the strategies they plan to use, about their time management, and how they will monitor their progress.
 - Have students compare notes and get feedback on their progress from fellow students.

3.3.2 The case method

One can write his/her own cases, but one can find cases already written that are appropriate for given purposes and are motivating for the students. Typically, case method involves a series of cases. One of the goals of the case method is to teach students to select important factors from a tangle of less important ones, which may form a context to be considered. Usually cases are presented in writing, videotape or role-play of a problem situation can be used.

- Before assigning the case study, *the following aspects should be clarified:*
 - What is the problem?
 - Develop hypotheses about what causes the problem?
 - What evidence can be gathered to support or discount any of the hypotheses?
 - What conclusions can be drawn? What are the recommendations?

When the teams report, the teacher's role is primarily to facilitate discussion i.e. listening, questioning, clarifying, challenging, encouraging analysis and problem solving, and testing the validity of generalizations. He/she can make a summary of points established, additional information needed, and the evidence supporting alternative approaches.

If the case is one that actually occurred, students will want to find out what actually was done and how it worked out. Sometimes the teacher might bring in someone working in the field so that students cannot only see how an expert analyzes the case, but also ask questions about what really happens in practice (McKeachie, 1999).

Based on our experiences we can state that students coming from grammar schools after graduation, are usually used to have some alternative teaching methods, such as project methods or case studies. They learn how to work with other students in groups, and how to present their findings. These methods make education a lot more interesting and fascinating. Without these, the traditional lecture-discussion education at the university level seems less interesting and motivating for them. University lecturers have to make a lot of effort to raise the students' attention to the course material as effectively as they can. Not only to inspire them to attend their courses but also to have them to pay attention while they are on lectures. According to our experiences, these teaching methods are not so commonly used in higher education.

Besides applying the different teaching methods, it is a difficult task to develop or create a new teaching material.

When developing some parts of the curriculum or course syllabuses the following "5 Ws+H" method can be used (Table 1).

Table 1. How to follow the "5Ws+H" method?

What is the question?		What is the answer?
WHOM?	do we have to teach?	Students of mechanical engineering, engineering management...
WHAT?		Courses/subjects/knowledge/skills...
WHEN?		BSc/MSc/PhD levels, which year...
WHERE?		Classroom/lab/field/workshop/internship...
WHY?		The objective of the course/knowledge/skills...
HOW?		Teaching methods: traditional/project/case method...

Our Faculty is in a better situation because the engineering manager students have to learn economics and management traditionally. We also offer enterprise, innovation, marketing, production, quality and project management courses for them. These functional management areas are really useful for the future project managers. The partly listed management techniques, methods and some special software are part of the curriculum.

Our students have to write special assignments and we ask them to work in teams. We teach the basic rules of teamwork and try to apply the problem solving in the practice. During the summer time our students spend some weeks in a company dealing with professional tasks and real problems. They gain a general overview about the material flow and about the management tasks of the company. They spend some time on the different departments and work with the technical managers. By the end of the practical period, they have to write an assignment or their thesis.

We also offer short-term postgraduate courses in a wide range of topics. It can be connected to a certain functional management area or to a management technique, method or software

package. The teaching method is usually different for them, because after a short theoretical background they get a really practical oriented case study or a special training developed for the daily need of the company. Education and training is very important, but it cannot substitute practice and experience.

4. CONCLUSIONS

Successful project management requires experienced managers with different skills. In the case of an agricultural project, this complexity is even more typical because the technical, agricultural, biological, IT, economic and management knowledge and skills are really essential ones.

In the frame of this paper I tried to prove the importance of the different skills and I have briefly characterized the main (six) functional management areas which are taught for our engineering manager students. Project management is a bridge between strategic and operative management and it plays a very important role in technical development. I have listed in a structured way the project manager's skills. Our students and the future project managers have to learn the related techniques, methods and the use of professional software. A young manager without - at least - the basics of these skills cannot be successful in managing projects. An experienced project manager should be a leader and has to direct the development in an ethical manner.

Well-trained teachers use cases or other problems, problem-based learning. They are valuable parts of their teaching strategies. The general principle is that students like to solve problems that offer a challenge but are still solvable is important. Motivation is not the only reason to use problems. If students are to learn how to think more effectively, they need to practice thinking. Moreover, knowledge learned and used in a realistic, problem-solving context is more likely to be remembered and used appropriately when needed later.

Based on our experiences it can be stated that our students coming from grammar schools after their graduation are usually used to have some alternative teaching methods. They learn how to work with other students in groups, and how to present their findings. When our staff develops a running course or create a new course syllabus for our students, they are recommended to use the "5 Ws+H" method.

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HOW DOES THE SECI MODEL WORK IN RISK KNOWLEDGE CREATION? THE DIFFICULTY OF JUSTIFICATION IN A COMBINATION MODE

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Summary: Our research discusses risk knowledge creation based on the SECI model introduced by Nonaka and Takeuchi (1995). In this paper, we use the case study method to show the essential factors for effective creation of risk knowledge. The case study revealed that the critical difference between orthodox knowledge creation and risk knowledge creation is the difficulty of justification in a combination mode. As a consequence, we concluded that the most important element to effective risk knowledge creation is to justify conducting preventative measures of risk.

Keywords: Risk, Knowledge creation, The SECI model, Japanese company

1. INTRODUCTION

Companies need to review regularly whether they have overlooked risks that may prove important in the future, what kind of impact current risk taking has on business, and how to respond to risks more effectively. In order to achieve these objectives it is necessary for the company to not only ensure that its existing risk knowledge is adequate, but also to continually update and renew its knowledge of risk. That is to say, “risk knowledge creation” is required in modern business. Based on this perspective, it is essential for modern management research to study risk knowledge creation.

Existing studies have already highlighted the importance of risk knowledge. COSO (2004) indicated the importance of the Enterprise Risk Management (ERM) framework, which consists of eight interrelated components. In this framework, risk knowledge (capability, skill, and information) can be positioned in the “internal environment” or “information and communication” section. Although existing risk management research has discussed risk knowledge itself in this manner, few studies have focused on risk knowledge creation. Some studies have already incorporated the concept of risk as it relates to knowledge or knowledge creation research. For example, Cooper (2003) examined risk in innovation during product development, and Kan and Tsai (2004) analyzed knowledge of health risks. Admittedly, this research was conducted on risk and knowledge or knowledge creation. However, little is actually known about risk knowledge creation, namely the manner in which risk knowledge is created and the factors necessary to promote it.

In order to clarify this subject, we will analyze both the areas of risk management and knowledge creation. In chapter 2, we will review the definitions of several key concepts as well as a theory on knowledge creation. In chapter 3, we will present a framework based on these concepts and this theory. In chapter 4, we will use case studies to show the essential factors for effective creation of risk knowledge. Finally, in chapter 5, we will reveal the implications that have become apparent from the above analysis and offer further direction for this area of study.

2. REVIEWING KEY CONCEPTS

2.1. RISK AND KNOWLEDGE

We define risk as the possibility of any adverse impact on the company. Knight (1921) presented a well-known definition of risk, defining it as uncertainty that can be measured in some way. However, we do not limit the concept of risk to what can be understood based on occurrence probability measured quantitatively. This is because, whether or not the probability and the potential loss can be calculated by a certain technique, if there is a possibility of any adverse impact on business or profits a company must manage it.

Knowledge can be divided into explicit knowledge and tacit knowledge. The former is objective knowledge and is easy to transfer because it can easily be expressed in language or a numerical form. The latter is subjective knowledge. Tacit knowledge has the cognitive aspects, such as a mental model and the technical aspects, such as know-how. Whatever the case may be, tacit knowledge is difficult to pass on to others (Nonaka and Takeuchi, 1995).

2.2. KNOWLEDGE CREATION

According to Nonaka and Takeuchi (1995), knowledge creation is conducted through four conversion modes: socialization, externalization, combination, and internalization. First, socialization creates tacit knowledge from other tacit knowledge through the act of sharing experiences without using language or numbers. Second, externalization verbalizes tacit knowledge into a clear concept. This is a significant process, since an ambiguous matter will be transferred to a certain analogy, hypothesis, model or similar state. Third, combination organizes explicit knowledge, including categorizing and sharing of knowledge. In addition, it is important to link middle-range concepts with grand concepts. This means that a concrete concept, such as a product concept, is connected with integrative concepts, such as the vision and mission of the company. Finally, internalization is the process of changing explicit knowledge into tacit knowledge and gaining tacit knowledge, such as a new mental model or know-how through learning by doing. If tacit knowledge acquired in the internalization mode is shared with other members of the organization, then it can be socialization. In this way, knowledge creation is practiced by repeating the spiral through four processes that are related to explicit and tacit knowledge.

3. RISK KNOWLEDGE CREATION

3.1. EXPLICIT RISK KNOWLEDGE AND TACIT RISK KNOWLEDGE

We can divide risk knowledge into explicit risk knowledge and tacit risk knowledge. Explicit risk knowledge is knowledge, which can be expressed clearly in words, language or figures. For example, a numeric statement of accounts or behavior standards that describe knowledge necessary for understanding and dealing with risk, such as staff and office regulations, instruction manuals and so forth. When a company has such explicit knowledge and it is ready for use, the company can confirm the risks that are in place, what to pay attention to and where to place restrictions. Tacit risk knowledge is difficult to express in language or as a numerical value. It contains things such as a company's attitude to risks, ways of understanding risk (perceptual differences in the risk depending on one's experience or situation), non-numeric evaluation of risk (not all kinds of risk can be numerically evaluated) and know-how relating to non-verbal responses (a way of responding that is difficult to convey to other people).

3.2. THE PROCESS OF RISK KNOWLEDGE CREATION

We will examine risk knowledge creation using the theory developed by Nonaka and Takeuchi (1995). Socialization of risk knowledge means to share and learn tacit risk knowledge such as ways of understanding risk, attitudes to risk, and operations know-how regarding avoiding accidents. Externalization of risk knowledge makes important tacit risk knowledge into explicit risk knowledge, and thus states it clearly so it can be understood by other people. For example, pointing out events where a risk was not recognized or highlighted in any manuals would be externalization. It is also externalization to convey and spread this new explicit risk knowledge to other members. Combination of risk knowledge means to convey and diffuse explicit risk knowledge, as well as creating and systemizing new explicit risk knowledge from it. Furthermore, the importance of relating medium range and grand concepts, as described in chapter 2.2, is one aspect of combination. It relates individual concepts, which were externalized explicit risk knowledge, and overall concepts, such as management principles or strategies. Internalization of risk knowledge means to act based on explicit risk knowledge and then create tacit risk knowledge. We could say it is internalization of risk knowledge to recognize risk and respond to it appropriately without referencing any manual or examples. In addition, to construct a new risk mental model or accumulate corresponding know-how by adapting explicit risk knowledge to other fields or matters is also internalization of risk knowledge.

4. CASE STUDIES

Now, we will analyze how and to what we should pay attention to execute these four processes of risk knowledge creation effectively, illustrated with related examples.

4.1. SOCIALIZATION

Firstly, we should point out the risk that knowledge creation gives too much weight to socialization. In 1999, in Tokai village, Ibaragi prefecture in Japan, JCO Inc. (henceforth JCO) had a criticality accident, a type of nuclear incident, in which two people died and more than 600 people were affected by radiation. In this accident, workers at the job site were not educated adequately and had little knowledge of uranium or criticality (Nanasawa, 2005). This became a key issue. The knowledge necessary for operations and management did not depend solely on education based explicit knowledge, but also greatly on tacit knowledge. If such circumstances where knowledge is not effectively shared, last for a long period of time it is to be expected that a dangerous accident or mistake could occur, as the workers could not recognize dangers. Furthermore, it might be difficult to suggest necessary modifications or corrections for operations, as they had not conveyed explicit knowledge such as background information on operations or management.

4.2. EXTERNALIZATION

Second, we will examine externalization (This case was written based on an interview with Ryosuke Hirai, senior adviser in the CSR Office, RICOH Inc., December 21, 2005). In this paper, we will point out the importance of externalizing vital risks for the firm by analyzing common features or factors of specific phenomena or incidents. An important example to examine is that of RICOH Inc. (henceforth RICOH). In late 1990, RICOH examined various accidents or mistakes, which had occurred. They discovered that many problems had arisen at affiliated companies, yet the parent company assumed responsibility for these problems.

Currently RICOH executes risk management as a whole company, but at that time it was only in the main part of the parent company. Therefore, the department of general affairs, which supervised risk management, suggested at a management meeting that it should be necessary for the whole RICOH group to execute risk management. Risk management for a whole company is called ERM (Enterprise Risk Management), and has been examined in many countries since 2000. COSO (2004), which we introduced in chapter 1, is an integrated ERM framework. In late 1990, RICOH could recognize the importance of ERM ahead of the rest of the world.

4.3. COMBINATION

In regards to combination, we can point out the importance of understanding risks and justifying the response to them. This is because even tackling mistakes or accidents beforehand generates costs such as coordination within the organization or payment of insurance fees. However, it is hard to understand the consequences of actions like this directly or in the short term. For example, the ideal result of preventing mistakes is that “nothing” occurs. Therefore, it is not easy to understand the direct relationship between tackling issues beforehand and the results. In other words, initiatives to cope with risk might be given lower priority than actions, which make profit such as R&D, production or sales. Thus, with combination, how to justify preventative measures towards risk becomes an important issue. Below, we examine and compare the cases of Fuji-Xerox Co.Ltd, (henceforth Fuji Xerox) and Sanyo Denki Co.Ltd (henceforth Sanyo Denki).

Fuji-Xerox’s company policy takes a serious view on employees’ health and safety. Since the first half of the 1990s, they have put in place countermeasures in case of earthquakes. So during the Niigata-Chuetsu Earthquake in 2004, Fuji-Xerox could quickly return to normal conditions while many other companies had to cease operations. On the other hand, a semiconductor factory of Sanyo Denki’s subsidiary completely collapsed, and they suffered a loss of 50 billion yen. Sanyo Denki had put off taking out earthquake insurance on the subsidiary as it was concerned over the possibility of not receiving full coverage or compensation. However, it is conventional wisdom in the industry to take out insurance because the production facilities for semiconductors are so expensive (Nihon Keizai Shinbun, December 24, 2004).

What we have to comment on here is why Fuji-Xerox was willing to prepare for earthquakes to its subsidiary and could take detailed measures in advance. A mid-range concept, such as a specific matter on earthquake countermeasures is justified by a perspective from a grand concept, such as a mission statement or corporate strategy. In such circumstances, the cost for coordination or preparation is estimated and viewed as an inevitable cost, so it is easy to progress with arrangements beforehand. Whereas for Sanyo-Denki, insurance costs were not warranted, because of the limiting of the compensation range. So we can conclude that for promoting combination of risk knowledge creation, it is important to justify individual actions needed to address risks (a mid-range concept) from the viewpoint of a mission or strategy of a company (a grand concept).

4.4. INTERNALIZATION

Forth, as we have clarified in chapter 2.2, it is necessary to act or learn for internalization. However, any risk no matter how small it is, can cause problems for a firm, such as accidents or mistakes. So we can say that simulated experiences of accidents or mistakes are necessary. A fire evacuation drill being a typical example. However, activities or training exercises like

this can turn into a mere formality. They can become a mere ceremony to confirm explicit knowledge. Furthermore, as time goes by, obtained tacit knowledge or feelings (also tacit) might be lost. To prevent it merely being a formality or losing tacit knowledge, and thus to be able to internalize knowledge effectively, actions should be taken. For example, NEC (Nihon Electric Company) introduces two cases per month in their mail magazine that draw attention to risk issues (Nihon denki, 2004). By introducing a variety of field cases and stimulating interest in people they can prevent simulated experiences turning into a mere formality, control the loss of tacit knowledge and keep people aware of risk. Not huge and low frequency actions but small and high frequency.

5. CONCLUSIONS

In this paper we have indicated that studies on risk management and knowledge creation rarely pay direct attention to risk knowledge creation. We have examined what risk knowledge is, how we can understand risk knowledge creation using case studies and the theory of Nonaka and Takeuchi (1995), and what to focus on to make these practices effective. As for socialization, we have indicated that if socialization of risk knowledge creation is over stressed, the possibility of risk occurrence, in the form of accidents or mistakes, might increase. As for externalization, we have studied the necessity of expressing risk, which could be serious, in the company's own context. As for combination, it is difficult to understand risk and the results of preventative measures in the short-term or directly. So we have pointed out the importance of justifying preventative measures by positioning them as a company-wide issue. As for internalization, we have shown that it is necessary to stimulate interest in the subject through education or learning and to have methods to maintain gained tacit knowledge. In short, we have suggested that learning and experiences should be on a small scale and high frequency incorporated into daily operations, not as special activities.

Now, we will present some implications and contributions for International Conference on Management of Human Resources, which might be of importance to the leadership. When a company finds unrecognized risk, it is essential that someone points it out, discussions are held and measures created, yet passive leaders might possibly suppress these actions. If this attitude is normalized, then recognized serious risks could be ignored without being addressed as an issue. So it is necessary for leaders of organizations to actively point out possible risk in order to facilitate risk knowledge creation and to be open to discussion about risk with subordinates. A leader's most important role is to foster a culture in which risk is discussed.

Lastly, we will suggest a future research topic. In chapter 4, we analyzed each of the four processes by illustrating specific cases. From these analyses, we have clarified some crucial issues in each process. However, we have not analyzed the connection sequence of the four processes. Henceforth, we could say that an analysis describing the four processes in detail would be necessary to understand the dynamic aspect of risk knowledge creation.

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PERFORMANCE MANAGEMENT IN FUNCTION OF DETERMINING INCENTIVE SYSTEMS FOR MANAGERS

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Summary: Performance management, a very important process of human resource management (HRM), can be significant basis for creating the incentive systems for managers. Big enterprises usually reward their Chief Executive Officer (CEO) for success in business. In the past period the amounts of managers' rewards was not correlated with achieved performances of enterprises, so it was important to analyze amount of rewards given to the managers and methods that can be used to measure achieved managerial performances. Subject of this paper was the analysis of compensation systems for managers in ten most successful companies of the world and their relation with the business results presented through specific indicators of performances. In addition, paper was subjected to the analysis of several methods of measuring performances that can be used in determining realistic amounts and structures of CEO rewards and incentives. The aim of this study was the presentation of the relation between managers' rewards and business performances and more objective methods for determining these rewards so that compensation packages can meet the requirements of effectiveness and efficiency in terms of long-term goals and performances of business system.

Keywords: human resource management, compensations, incentives, performance management, methods for performance measurement

1. INTRODUCTION

Performance management implies an assessment of current or previous results or performance of the employee, team or the whole organization. On such assessments companies create its policies in many business areas related to HRM: the need for staff training, new recruitment, rewarding, etc. In the area of rewards, performance measurement can be significant basis for creating the incentive systems for managers. Namely, big enterprises usually reward their CEO for success in business. Companies were often very generous in the reward practice for managers. But, in the past period, the amounts of managers' rewards was not correlated with achieved performances of enterprises, so it was important to analyze amount of rewards given to the managers and methods that can be used to measure achieved managerial performances.

Subject of this paper was the analysis of compensation systems for managers in ten most successful companies in the USA and their relation with the business results presented through specific indicators of performances. The aim of this study was the presentation of the relation between managers' rewards and business performances and different objective methods for determining these rewards, so that compensation packages can meet the requirements of effectiveness and efficiency. The paper is consisted from three parts. In the first part, authors defined performance measurement and performance measurement system. Second part was related to the analysis of the performances in the 10 most successful companies from USA (according to the list of the magazine Fortune 500) and to the analysis of the compensations of the CEOs in those companies. Third part was dedicated to the presentation of the more

comprehensive measurement systems of performances that will be better solution for the determining and creation of the CEO compensations: BSC and EVA concept.

2. PERFORMANCE MANAGEMENT

Performance measurement is an assessment of current or previous results of performance of the employee. According to Neely, Gregory and Platts (1995) performance measurement (PM) is defined as “the process of quantifying effectiveness and efficiency of actions”. One comprehensive definition is that PM is “the process of quantifying the efficiency and effectiveness of actions, in order to compare results against expectations, with the intent to motivate, guide and improve decision making” (Lardenoije, Van Raaij and Van Weele, 2005). Lebas (1995) characterizes performance management system (PMS) as “the philosophy supported by performance measurement. It is the organization-wide shared vision, teamwork, training, incentives, etc. that surround the performance measurement activity”. PMS is “the set of metrics used to quantify the efficiency and effectiveness of actions, and the corresponding guidelines for linking these metrics to strategy and improvement” (Lardenoije, Van Raaij and Van Weele, 2005). The performance measures should be relevant, balanced, based on financial and non-financial indicators and related to internal and external stakeholders.

It is important to notice some contemporary researches made in relation to the importance of PM in modern business. Nudurupati, Bititci, Kumar and Chan (2011) and Bititci, Garengo, Dörfler and Nudurupati (2011) have reviewed and tackled the evolution of the performance measurement field in the context of information systems and change management. Also, many other researches have been made to explain PM and its implementation in each area of business: profit, non-profit, public, private, etc. In this paper PM was analyzed as the base for managerial compensations.

3. PERFORMANCE MANAGEMENT AS THE BASE FOR CREATING MANAGERIAL INCETIVE COMPENSATIONS

When it comes to the compensation for managers, performance management gets even bigger role. The current bureaucratic models of determining these systems had the impact on their low motivational force as well as on problems between the owners and managers in terms of high agency costs. Jensen and Murphy (2010) considered that there is a major misalignment between corporate performance and compensation paid to executives, especially CEOs. Adequate systems of compensation for managers should be structured on the basis of actual performance. In addition, it would be necessary to determine the controllable and non controllable factors (in the sense of those factors that are in the power of manager). If the long and short-term incentives for managers are in the question, a very interesting attitude was expressed by Malinić (2007) where he stated that short-term compensation should be based on standard financial indicators, such as profit (with variations to make it after tax, profit before tax and profit before interest and taxes), rate of return, cash flow, earnings per share and the like; and long-term compensation should be tied to several criteria that respect the long-term profitability; long-term position of the company and movement of the total shareholder returns (dividends and capital gains). The criteria for achieving long-term compensation imposed are the market value of companies, economic value added EVA, market value added MVA, the total shareholder return TSR, etc. For the more comprehensive view of the performance measures and indicators in Table 1 there are summarized the indicators for the evaluation of the performance of the organization.

Table 1: Performance management tools and indicators

PERFORMANCE MANAGEMENT TOOLS	
FINANCIAL INDICATORS	INDICATORS OF TOTAL PERFORMANCES
Return on Investment (ROI)	Balanced scorecard (BSC)
Return on Assets (ROA)	
Return on Equity (ROE)	Tableau du Board (TdB)
Earnings per Share (EPS)	
Cash flow (CF)	Performance Prism (PPR)
Revenue (I)	
Profit (P)	Performance Pyramid System (PPS)
Total Shareholder return (TSR)	
Market Value Added (MVA)	
Economic Value Added (EVA)	Productivity Measurement and Enhancement System (ProMES)

Source: Malinić, 2007; Lardenoije, Van Raaij, Van Weele, 2005.

In order to show the level of compensation, their structure and relation to the performance, it has been made the analysis of performances of the top ten USA companies (according to Fortune 500 <http://money.cnn.com>, table 2) and it's managerial reward packages (Hay Group for 2010, <http://www.haygroup.com>, table 3). According tables, it can be concluded next:

- Each company from table 2, except Bank of America and Fannie Mae, had a profitable business 2010 year. There has been noticed the growth of revenues and profits, accompanied with the growth of earning per share (EPS) from 2009 to 2010. For example, the growth of the revenue is between 3.3 and 32.6 % (Fannie Mae reached even 429.2% higher revenue than in 2009), the growth of profit is between 5.6 and 141.5%. EPS growth was from 20.8 to 135.2%. Also, each company, except Bank of America and Fannie Mae, had positive indicators of ROA, ROE and ROI, which means that those companies have created return on assets, investments and equity. This can be explained as short-term gain for the company since all those indicators are related to the annual business and financial operations.
- Main elements of CEO compensations are: base salary; annual incentives; long term incentives – stock options grants, restricted stock grants, performance-based grants in equity and cash; all other compensations (perquisites, personal benefits) and change in nonqualified deferred compensation earnings plus change in pension value.
- Basic salary is the smallest part of the total compensations, and it estimates from 6.97% (in Wall Mart) to 16.8% (in General Electric) of total compensations. In companies that did not create long and short-term incentives, salary is the biggest or even the only element of the compensations (Berkshire Hathaway and General Motors). Basic salary is determined by the working contract between managers and companies, and it is fixed amount that is paid with no relation to the performances.

Table 2: The performances of the 10 most successful companies from the list of Fortune in 2010

R	Company	Key financial elements in millions of \$							Pr (%)	ROA (%)	ROE (%)	EPS			ROI	
		Revenues	% change from 2009	Profits	% change from 2009	Assets	Stockholders' equity	Market value (3/25/2011)				2000-2010 Annual growth (%)	2010 \$	% change from 2009	2000-2010 Annual rate (%)	2010 (%)
1	Wal-Mart Stores	421,849	3.3	16,389	14.3	180,663	68,542	182,764	3.9	9.1	23.9	12.3	4.47	20.8	1.4	3.2
2	Exxon Mobil	354,674	24.6	30,460	58	302,510	146,839	414,638	8.6	10.1	20.7	9.5	6.22	56.3	7.7	10.1
3	Chevron	196,337	20.1	19,024	81.5	184,769	105,081	214,355.5	9.7	10.3	18.1	9.1	9.48	80.9	11.6	22.9
4	ConocoPhillips	184,966	32.6	11,358	133.8	156,314	68,562	116,812.3	6.1	7.3	16.6	7.7	7.62	135.2	12.2	38.8
5	Fannie Mae	153,825	429.2	-14,014	N.A.	3,221,972	-2,599	447.9	-9.1	-0.4	N.A.	N.A.	-3.81	N.A.	-42.1	-74.6
6	General Electric	151,628	-3.3	11,644	5.6	751,216	118,936	209,715.2	7.7	1.6	9.8	-1.8	1.06	5.0	-6.3	23.9
7	Berkshire Hathaway	136,185	21.1	12,967	61	372,229	157,318	210,787.5	9.5	3.5	8.2	13.8	7.0	52.7	5.4	21.4
8	General Motors	135,592	29.6	6,172	N.A.	138,898	36,180	49,116.6	4.6	4.4	17.1	N.A.	2.89	N.A.	N.A.	N.A.
9	Bank of America	134,194	-10.8	-2,238	-135.7	2,264,909	228,248	135,016.2	-1.7	-0.1	-1.0	N.A.	-0.37	N.A.	-1.7	-11.2
10	Ford Motor	128,954	9	6,561	141.5	164,687	-673	55,715	5.1	4.0	N.A.	-3.2	1.66	93.0	-1.2	67.9

Table 3: CEO compensations of the 10 most successful companies from the list of Fortune in 2010

R	Company	Elements of total compensations for CEO in (000 \$)											
		Salary	An. incentives	Long term incentives (000\$) - LTI				Total direct compensations	Change in Nonqualified Deferred Compensation + Change in Pension Value	All Other Compensation	Total Compensation	Total Realized LTI	3-Year Realized Total Direct Compensation
				Stock option grants	Restricted stock grants	Performance Based Grant Equity	Performance Based Grant Cash						
1	Wal-Mart Stores	1,232.7	3,852.1	0	3,347.5	9,304.9	0	17,737.1	499.1	476.6	18,712.7	17,592.8	N.A. ¹⁶
2	Exxon Mobil	2,207.0	3,360.0	0	15,465.4	0	0	21,032.4	7,476.3	443.9	28,952.6	7,989.7	33,000.2
3	Chevron	1,479.2	3,000.0	5,535.2	0	3,752.4	0	13,776.8	2,273.3	220.5	16,260.5	3,101.7	N.A.
4	ConocoPhillips	1,500.0	4,252.5	5,737.7	0	6,148.6	0	17,638.8	0	294.1	17,932.9	9,566.3	36,299.1
5	Fannie Mae	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
6	General Electric	3,300.0	4,000.0	7,400.0	0	0	4,950.0	19,650.0	6,339.0	389.8	26,378.8	1,933.1	25,093.6
7	Berkshire Hathaway	100.0	0	0	0	0	0	100.0	0	429.9	524.9	0	300.0
8	General Motors	2,333.3	0	0	666.7	0	0	3,000.0	0	194.1	3,194.1	0	N.A.
9	Bank of America	950.0	0	0	9,050.0	0	0	10,000.0	719.8	270.2	10,990.1	1,039.3	N.A.
10	Ford Motor	1,400.0	9,450.0	7,500.0	0	7,492.5	0	25,842.5	0	678.0	26,520.5	9,298.0	25,888.0

¹⁶ Data not available

- Annual incentives are usually double or even several times bigger than salary. These incentives are paid in almost each company where have been created positive business result, profit and performance indicators of ROA, ROE, ROI and EPS. In Bank of America annual incentives were not paid since that corporation realized loss in 2010 of \$-2,238 millions. Annual incentives are usually paid for the short time period.
- Long-term incentives have reached level from 58% to 74% of total compensations, with the exception of General Electric Company (LTI are only 22% of total compensations). Long-term incentives are differently used in each company. The most used are stock options, restricted stocks and performance based equity grants. The performance based cash grants were used only by one company. In addition, five companies form the table 3 used two LTI elements in rewarding its CEO - stock options and performance based equity grants. Last five companies decided to give to the CEOs only one LTI incentive - restricted stock grant.
- Related to the long term incentives is also the tendency of rewarding CEO with more deferred compensations. Namely, performance based cash grants were used only in General Electric Company. All other companies gave to the CEOs compensations in form of capital – equity and stocks. For example, restricted stocks were given as compensation in four out of ten companies. Stock options were used in four cases.
- Since the economic crisis had affected the business and economy in many world countries, wastefully CEO compensation models became untenable. HR managers are trying to create models that will be enough motivating but also sustainable in means of real business performances. The goal of any compensation system should be to attract, motivate and retain the best managers, while at the same time being fair to the shareholders.

After the discussion of Tables 2 and 3, it can be concluded that there are many issues related to the amount and structure of CEO compensation. These remunerations should be based on outcomes and total business performances of the company. Since only financial indicators are not suitable for the total compensation system, it should be mentioned some other performance measurement model in practice that could be linked to this problem. From all models presented in Table 1, BSC and EVA were found as the performance measurement models that can be used in function of efficient and effective CEO compensation systems.

4. PERFORMANCE MEASUREMENT SYSTEMS FOR CEO INCENTIVE COMPENSATIONS IN PRACTICE

4.1. THE BALANCED SCORECARD (BSC)

One of the best known performance measurement system is the balanced scorecard (BSC), developed by Kaplan and Norton (1992; 1996; 1996a). Kaplan and Norton (1996a) define the BSC as “a multidimensional framework for describing, implementing and managing strategy at all levels of an enterprise by linking, through a logical structure, objectives, initiatives, and measures to an organization’s strategy”. BSC complements the traditional financial performance measures with three non-financial key performance indicators (KPIs): financial perspective; customer perspective; internal processes; learning and growth.

Pollanen and Xi (2011) had investigated the use of BSC measures in executive compensation plans, particularly its performance consequences, and the fit between the use of BSC and firm characteristics. The findings underscored the importance of firm characteristics in the design and use of performance measurement and reward systems. Creamer and Freund (2010) analyzed the BSC and one of the most important parts of its dataset was CEO compensations.

They demonstrated how the boosting approach can be used to define a data driven board BSC with applications to 500 biggest USA companies. Without further literature analysis, in table 4 it has been presented the example of CEO incentive compensation designed according to BSC. Jones (2009) claimed that CEO paid bonus percentage should be tied to the percentage of exceeding performance targets.

Table 4: Executive compensation systems according BSC dimensions

<i>Category</i>	<i>Measure</i>	<i>Weighting</i>
Financial (60%)	EVA	25%
	Unit Profit	20%
	Market Growth	15%
Customer (20%)	Customer satisfaction survey	10%
	Dealer satisfaction survey	10%
Internal Process (10%)	Above average rank on industry quality survey	5%
	Decrease in dealer delivery cycle time	5%
Innovation and Learning (10%)	Suggestions/employee	5%
	Emp. satisfaction survey	5%

Source: Jones (2009).

4.2. ECONOMIC VALUE ADDED (EVA)

EVA is defined as the change in the NOPAT (Net Operating Profit after Taxes) minus the change in the Cost of the Capital used to generate this NOPAT (Kumar and Kaura, 2002; Sharma and Kumar, 2010). EVA can provide investors with a normal return on the company’s shares—that is important not only for securities analysts in evaluating stocks, but also for corporate compensation committees in setting performance standards for management incentive compensation plans (O’Byrne, 1996). Namely, EVA bonus plan measures excess EVA improvement as opposed to simply EVA growth over prior periods. It provides a more direct link to the true measure of shareholder wealth creation – returns above market expectations (Young and O’Byrne, 2001). Following formula can be used to calculate CEO bonus in each year:

$$Current\ Year\ Bonus = Target\ Bonus + y\% (\Delta EVA - E_i) \tag{1}$$

Target bonus is “the bonus earned by a manager for delivering the EVA improvement that is expected by investors. This expected EVA improvement should be equivalent to the EVA that will provide shareholders with a cost of capital return on the market value of their investment in the business” (Balsley, 2005). If EVA is below this level, bonuses will be reduced while returns of shareholders do not fall to zero. At this level, there will be no bonuses for managers. $\Delta EVA - E_i$ represents “the change in EVA less expected EVA improvement. This is meant to capture the incremental EVA that a manager has delivered above and beyond the EVA growth that investors expect and have already paid for. The percentage of the incremental performance that is returned to management (y) is established by the compensation committee” (Balsley, 2005).

Additional incentives beyond the level of the target bonus are provided for increasing the EVA above the level provided by covering the total cost of capital and only the part of EVA that is increased above the expected level. In this way it will be prevented the excessive increase of compensation costs. If the criteria for bonuses was any increase in EVA, then there will be situations in which one reached EVA (above the level that provides target bonus) is decreasing, which is usually accompanied by a decline in value of shares and

managers will still exercise bonuses over target level (Malinić, 2007). Because of this, Stern Stewart & Co proposed the use of a “bonus bank” designed to base a manager’s annual bonus payout on multi-period EVA delivery. In every year, the “current year bonus” is calculated using the formula described above and based on the manager’s performance during that year. That “current year bonus” is then placed in a “bonus bank” that also holds the deferred (or unpaid portion of) bonuses from prior years. The bonus bank balance (after the current year bonus has been included), rather than the current year bonus, then determines the amount of bonus actually earned by a manager each year. The amount earned is determined in two steps: first, 100% of the bonus bank (if possible) is paid up to the amount of the target bonus; second, plus 1/3 of the remaining bonus bank (after the target bonus) (Balsley, 2005).

5. CONCLUSION

Incentive systems for managers are very complex area of HRM. A mixture of compensations elements, importance of short and long – term incentives for managers and problem of rewarding in the past make this issue more sophisticated. Usually, executive compensations was weakly correlated or even no correlated with the achieved performances. Because of these issues and problems, there is a need for improvement in the design of managerial compensations. Main conclusions of this paper are:

- Main elements of CEO compensations are: base salary, annual incentives, long term incentives, all other compensations, change in nonqualified deferred compensation earnings plus change in pension value.
- Basic salary is the smallest part of the total compensations in companies that rewarded its managers with diversified compensation package, and it estimates from 6.97% to 16.8%.
- Annual incentives are usually double or even several times bigger than salary. These incentives are paid in almost each company where have been created positive business result and performance indicators of ROA, ROE, ROI and EPS.
- Long-term incentives have reached level from 58% to 74% of total compensations. The most used are stock options, restricted stocks and performance based equity grants. Related to the long term incentives is also the tendency of rewarding CEO with more deferred compensations.
- One of the best known performance measurement systems is the balanced scorecard that provides an enterprise view of an organization’s overall performance. According to BSC, CEO paid bonus percentage should be tied to the percentage of exceeding performance targets – financial, commercial, internal processes and learning and innovation.
- EVA incentive compensations are based not only on the year increase in EVA, but on the increase that is above expected EVA improvement. Bonus bank is usually used to motivate managers to make decisions that will create superior performances and value for the shareholders continuously. This method will connect results of managers to the deferred bonus payout.

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**THE CHALLENGES FOR THE HUMAN RESOURCE MANAGEMENT IN
GERMAN SMALL AND MEDIUM SIZED ENTERPRISES (SME) IN CONNECTION
WITH THE DEMOGRAPHIC CHANGE**

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Summary: The demographic change and its effects on the societies is a current scientific topic of great interest. The German Labor Market for example is in transition: the range of working-age persons will decline by 6,5 millions until 2025, which means that the number of appropriate specialists will decline as well. The aim of the paper is to show, which possible strategies German SME could generate to deal with these developments and how they response on this situation in terms of a change of their Human resource management. This implies different fields of action like personal recruitment and vocational training, typically summarized in a Balanced score card (BSC) in order to obtain the competitiveness of the SME.

Keywords: Demographic change, SME, Balanced scorecard

1. INTRODUCTION

Germany is in the middle of drastic demographic changes. The eleventh coordinating population forecast by the Federal Statistical Office (Federal statistical Service Germany, 2006) showed that the population would diminish significantly. Not only the state and society will be affected by the impact of the demographic trends, companies will feel the consequences as the peoples' demand of goods and services on the markets will decline, too. As employees are one of the most important, if not the most important corporate resource, a result is that the companies have to deal with an older average age of the employees and bigger problems in order to find the employees needed for the special belongings of the SME's. It is insofar a specific SME problem, because they typically do not have a personal-recruitment unit within their companies. The SME's form the backbone of the German economy. The Institute for SME Research in Bonn (Germany) has noted in a recent study (Fuchs and Dörfler, 2005a) that the awareness of the German SME-owners is quite focused on parts of the demographic change and its consequences: While many companies have recognized the need for an adjustment in the sales area a developed awareness of changes of the personal policies still is missing. Due to the demographic change and its challenges for the SME it is therefore to consider which strategies should be generated and realized.

In this context, the "Balanced Scorecard" has been intensively discussed for years. Since its conception by KAPLAN and NORTON (Kaplan and Norton, 1996) in the early nineties was introduced into various companies, including small and medium enterprises, there are already numerous publications about the BSC. This paper shall present a description of conceptual and practical approaches for SME's in terms of managing their staff by the BSC. It aims to show how the BSC is suitable for SME's, generally regarded as a controlling and a management system specifically for the consideration of Human Resource-related impacts of the demographic change. In particular, the classical BSC contents the learning and development perspective as well as selected approaches of the BSC. With the use of the BSC

and an increased engagement with the learning and growth perspective in the context of demographic change, SME's can generate and use developed strategies purposefully.

2. THE IMPACTS OF THE DEMOGRAPHIC CHANGE

The term “demographic change” is synonymous with demography, often used with population. The population statistics include the population its structure and population movement, population models and projections. A population forecast is an estimate of future population growth. Important factors are the birthright of demographic behaviour, mortality and net migration. At the end of 2010 lived 82.1 million people in Germany. This will be reduced by 2050 to nearly 69-74 million (Fuchs and Dörfler, 2005b). At the same time will increase the average age of residents of 42 years in 2005 to 50 in 2050. Here, the relations between old and young will change significantly. On the one hand, decreases the number of people less than 20 years in 2050 to less than 30% of the population and the 20 - to 65-year-old to below 22-29%. On the other hand, the number of 65-year-old and older increase by about 43% for businesses, the development of the labor pool is more important than the development of the population in a whole. The labor force will decline from 2004 to 2050 by 13 million people to 31.5 millions. The decline of the labor force potential in the former East Germany is with 55.4% more dramatic than in western Germany with 22.9%. At the same time shifts the age structure of the labor pool. Both, the number of employed persons between 15 and 29 years and the 30 to 50 year old will fall sharply. Only the number of older workers raises from 10.3 million in 2004 to 14.3 million in 2020 to 2050 back to about 11.2 million. In addition to the decline in the labor pool also the shift in age structure vary significantly from region to region, in some districts of Germany, the number of older people is about two thirds or more (Federal statistic service, 2008). Because of the sharp decline in the younger labor force the competition between the vocational training alternatives, i.e. the dual training system and the technical and higher education sector, as well as between the companies will increase. In addition to the reduction and the aging of the labor force potential the skill level and the skill structure of the population will change. The nowadays middle-aged people between 30 and 50 will not be replaced adequately nether with the proper qualification levels nor at the needed extend. Their departure creates not only a quantitative gap, but the companies are facing the problem to replace its quality. The assumption that better qualified younger generations replace older employees is pretty unlikely. If education continues to stagnate at the current level there will be a huge lack of skilled workers. For example, an increasing shortage of machinery, electrical and industrial engineers as well as a lack of skilled workers in the IT- branch is already recognizable. Summarized the demographic change will lead to a partial shortage of labor, a labor force reduction followed by increased wages, an increase of employees with performance constraints, reduced staffing flexibility, know-how gaps and a loss of innovation are predicted (Fuchs and Dörfler, 2005a).

3. STRATEGICAL RESPONSES ON THE DEMOGRAPHIC CHANGE

This demographic development in addition with the globalization of the markets is the biggest future challenge for the companies. The impact on the firms will depend on the operating history and personal political strategy in the past. To cope with the inexorable demographic trends, especially in medium-range decisions the companies require new strategies and measures. A special concern of SME's by the demographic development is obviously the particular importance of human resources and the typical weakness in personnel and organization of human resource management strategies. The importance of human resource strategies in SME's remains far behind compared with those for large firms (Hamel, 2006).

For SME's, human resource management criteria such as loyalty, reliability, thinking identification with the enterprise, creativity, quality and cost consciousness are more important than for large firms. The employees in SME's have a special position. The relative importance of each employee is often bigger than the relative importance of the same employee in large firms. In addition, the SME depend on the employee's flexibility on all sides because of their high-trained and especially technically specialized staff. This is why they are often an insignificant proportion of unskilled and semiskilled workers employed. This also distinguishes the SME structure's from large companies. For SME's qualified and motivated employees are considered as a resource of vital importance. Strategic considerations are absolutely necessary in order to deal with the future developments of the demographic change as described above. As the activities of SME's concerning the covering of the staff needed often had hampered by a missing strategy there is a need to generate and implement a fitting strategy. Problems of staff recruitment combined with a strong ability to face the challenge of global markets have to be solved. Therefore, two steps seem to be essential for SME's: First there has to be developed a strategy that contents solutions for the emerging problems followed by the demographic change. Second the elements of this strategy have to be extended by further elements especially like how to deal with the challenges of globalized markets. Both can typically be realized by a fitting BSC, which is an option that shall be described in the further. A systematic human resource development so far is carried out only in a few medium-sized enterprises (Kayser, 2006). This is illustrated by the fact that training is often done only for current needs and solving technical problems. Already, the middle class is faced with the problem of skilled labor in sufficient numbers and skills needed to find. To deal with the impacts of the demographic change the SME will have to implement a strategy that includes all action fields which are important for the success of the companies. A key factor is already and will be more and more the strategic field of "Personal management and recruitment". However, this strategic goal cannot be reached isolated from further perspectives and goals. Only if the strategic objectives of financial, customer and process perspective are embedded as well a successful growth perspective can be obtained (Krause, 2008). The field of "personal management and recruitment" covers both education and vocational education like training on the job in order to improve skills, establish human resource development or improve product management and so on. On closer inspection it becomes clear that these objectives have a cross-over nature. Thus, the goal maintaining employability includes increased employee retention, skills development and maintenance of physical, mental and psychological abilities. Therefore strategic goals have to be as unique as possible and should take care of specific belongings as well, especially as the SME's typically have a high specification grade. The BSC is considered to be a very usable tool for SME's to generate a strategy that combines the strategy elements being considered already with a strategy for personal management and recruitment.

3.1. STRATEGICAL GOALS

The strategic objectives in the BSC specify the business strategy. Within the BSC the demographic development and its impacts will be integrated as a factor of opportunities and risks. The extension of the classical BSC with four dimensions to the environment as a fifth base perspective allows consideration of indicators including the earliest indicators of labor market analysis. The BSC is a concept for the implementation of corporate strategies (Börner, 2006). It is derived from the strategy of the company as a strategic management system supporting the management process of master critical management processes. (As part of strategic planning, the five levels of goal-setting, environmental analysis, business analysis, strategic choice and strategy implementation can be distinguished. The BSC is attributable to

implementation of the strategy). Thus for the strategy choice and strategy implementation, the results of the environmental analysis in the form of opportunities and risks involved in the environment are relevant. Demographic trends have to be included into the strategy decisions to keep the actuality of the BSC and the corporate strategy. In particular, opportunities to integrate the recruitment and development in the classical BSC are developed, presented and evaluated. The task of recruitment is to procure the necessary staff in the required number and skills at the appropriate time for the requested feature at competitive and achievement-income. As parts of the strategic fields of action of recruitment are exemplary goals: Highly qualified and motivated employees in the necessary number set, attractiveness as employer, qualitatively and quantitatively sufficient personnel, a continuously improvement of skills and techniques (Philipps, 2003). Concerning the organizational conditions it is typical for SME that personnel planning, career structure and succession remain largely limited to non-routine activities. A competent organizational unit solely for the staff is usually not available, even staff positions for the organizational integration of personnel management functions are mainly exhausted in a personnel or payroll office which is responsible for the essential administrative tasks, as well as a functional assignment of personnel management. Action fields of a demographically-oriented personnel management have to focus on core operational processes and related cross-action areas. Through staff development, the goal of helping to qualify employee's at all hierarchical levels to face current and future needs can be reached. This includes all programs and systems that deal with workforce development activities and methods of training, continuing education within the company. By determining the strategic objectives for each perspective, the strategy within the individual perspectives and goals assigned to receive. At the same time, this forms the basis for all other activities in the BSC-creation. To ensure the strategic importance the strategic objectives should have a highly competitive relevance. By the formulation of strategic goals it has to be made sure that they are as specific as possible and action-oriented. The high level of competitive relevance is absolutely necessary in order to continue or improve the market success.

3.2. PERSONAL MANAGERMENTS' FIELDS OF ACTION

The fields of action in the personal management concrete the strategic goals and describe instruments to reach the goals and make an important contribution to the success of the company. With respect to the recruitment a distinction is made between internal and external recruitment. Internal recruitment typically goes hand in hand with the development of the staffs' qualifications and skills and shall be explained further. Recruitment in this context means the external recruitment of workers (a strength of the SME is basically a high degree of loyalty and responsibility of employees to the company; workers often remain for a longer period in the same company (Jürgenhake, 2008). Taking into account the regional differences in the demographic development intensive recruitment efforts must be expanded to meet the needs of cover the personal demand for the SME's. This also means, as local labor markets differ quite significantly the opportunities of the potential workers are varying. Taking this into account, the fields of action have to fit with the regional environment. Although the recruitment actions might be very different from each other the key is usually to stress the advantages of the SME like special promotions or job advertisements designed in a way to focus on the specific benefits due to work in a SME (e.g. like a good environment, a "great team spirit"). The main target is to compensate possible disadvantages compared to big companies as described above. Besides the recruitment the other most important target is the development of the employees in order to optimize their skills for the needed demands. This bundle of actions is summarized under "Human Resource development measures" and contents all actions like create a training and educational plan for the near future as well as for

the next years, create a forecast of the future demand of employees and the changes of their needed skills or level of vocational education. These measures are closely interacting with other strategic goals as described in the BSC. Summarized the fields of action of the personal management are the specific discharges of the strategic goals set in the BSC embedded in the strategy-mix of the SME's as a part of the BSC as well. Therefore there are many correlations with each other e.g. the goal of generating growth will not be reached without better qualified and/or personal or maybe new ways of distribution etc.

4. CONCLUSIONS

The demographic change will exacerbate the problems for SMEs concerning the recruitment and education of the employees needed. This situation is even more difficult as SME's have many disadvantages in comparison with large companies although, however, there are several advantages, too. It is therefore increasingly important to deal intensively with the recruitment of staff to the "war of talents" not being on the losing side, e.g. the advantages must be published especially in order to be an interesting option for young professional potential workers instead of work for a big employer. The systematic BSC is a possible approach for SME's to implement a tool that helps facing these problems and supports to find solutions. As a successful strategy-mix a BSC must firstly describe the strategic goals and secondly lead to concrete fields of personal management action (Bleicher, 2004). The bundle of strategies has to be chosen by taken all the targets of the SME's into consideration, not only the personal management but as well as an equivalent strategic goal. With the extension of the BSC approach to the demographic change and its challenges, the future position of SME's as employers and as market partners can be strengthened. For example, weak school leavers and unemployment or less qualified persons might be very good options at second glance, if they are qualified adequately by training on the job and thus integrated in a personal, not anonymous atmosphere (Fridag, 2002). Those niches are relevant in order to be serious competitors for the best candidates with large, established companies. The recruitment costs can be kept comparatively low and if this is embedded in a strategy the continuous search for promising applicants becomes standardized process weather for a special unit within the SME's or for the owners of them. Processes like personal recruitment or designing a training on the job planning's for a year or for longer perspectives in order to enable employees to deal with new challenges in the future have to be as standardized as for any other activity else. Only those SME's that recognize early the meaning of a structured personal-strategy linked with new ways of the search of personal and qualifying the staff systematically will survive and keep their special abilities as powerful partners for specific solutions.

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STRATEGY FOR CHOOSING THE RIGHT ONE: AN EVALUATION BY TOPSIS METHOD

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Summary: This paper seeks to investigate the impacts of criteria on evaluation of suppliers, as well as the elements that make the supplier as “the preferred” one. The Fuzzy TOPSIS (Technique For Order Preference by Similarity to Ideal Solution) method is used to examine the studied firm’s suppliers and find out the important criteria on evaluation of the suppliers. The core of TOPSIS method provides two main solutions; that is by ranking method of the mean of the integral values is applied to help derive the ideal and negative-ideal fuzzy solutions. The ideal and negative-ideal fuzzy solutions open the path to calculate the closeness coefficients. A supplier assessment questionnaire was conducted to three executives who actively work as decision makers on supplier issues of the studied firm. Via questionnaire and interviews, the leading and lagged elements of supplier assessment are sorted by closeness coefficients calculated. The proposed method is chosen because it is typically used in multi criteria decision-making problems. Supplier topic itself, containing a process of selection (right quality, right price, right time, right quantities etc.), is also a problem for companies hence containing multiple criteria to establish a desirable supply chain. This study helps the management to identify and sort the importance of criteria and the indicators to enhance the performance of their suppliers and their own business performance eventually.

Keywords: Supplier Chain Management, Fuzzy TOPSIS, Supplier Assessment

1. INTRODUCTION

As to manage the outcomes of globalisation firms generally act two-sided; first one is quality and the other one is cost effectiveness. In essence, to gain and sustain competitive advantage firms needed to be in business of total quality management logic where the supplier stands as the origin of the process. Required products and services must be provided with quality-oriented drive under some standards and intended value creation. Moreover, achieving standard quality; the right time, location and quantity become substantive as well.

In order gain success in cost effectiveness the principal thought is to lower the costs by outsourcing that refers to terminate activities excluded in value-creation. Besides, just in time production model with an aspect of desired quantity with minimum stock and storage cost became visible in the current business market. As this production logic emerge for the firms, the selection of supplier and establishment of relationship become more and more important.

In terms of providing success, the suppliers needed to be on the same logic and support the focal firm by all means. In this point, suppliers and firms should not be estimated separately as they are strictly bonded. Various factors such as organizational goals and risks, resources, benefits and capabilities have to be taken into consideration to evaluate and find the right supplier to work via win-win situation. All criteria may be unique for firms, however, decision and selection period differ as mutual benefits are sought and criteria ranking differs firm to firm. To sustain the relationship short and long-term agreements are generally preferred as the affection is mutual as well.

Due to importance of supplier selection where many criteria needed to be evaluated, a systematic method of fuzzy TOPSIS is being used in this study. To decide the right supplier which is a multi-criteria problem for firms, we have done an evaluation in an aluminium company runs business in Bilecik city of Turkey through modifying TOPSIS tend to be an effective evaluation approach. In this study, we have identified some criteria in order to select the appropriate supplier and decision makers rated them in terms of importance. Modifying TOPSIS model presented which supplier has the significant importance. With previous studies in various industries, we tend to provide decision makers more information to make subtle decisions, which is the sight of this paper.

2. LITERATURE REVIEW

The decision problem of selection suppliers can be a complex task as it generally relies on decision makers' judgement with lack of inadequate information and uncertainty, which makes the selection and evaluation process more problematic. In the literature, evaluation and performance calculated via using various methods. Fuzzy TOPSIS being one of them, aimed to define alternative criteria are those under consideration requiring reliable solution.

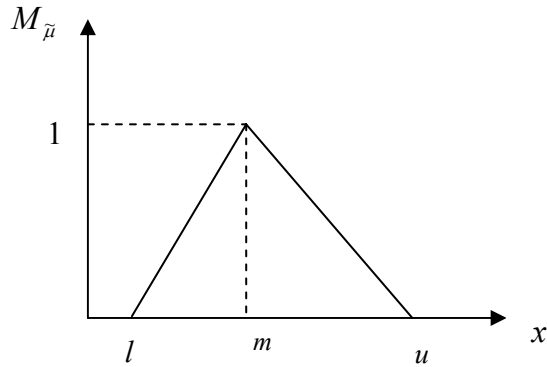
The studies under the name of supplier selection are done in United States, as Dickson (1966) is one of first. In that study, 23 criteria were used as product quality, on time delivery and warranty policy emerged as the leading criteria (Dickson, 1966: 16-17). Pi and Low (2006) has preferred the criteria of quality, on time delivery, price and service. Dağdeviren and Eren (2001) have chosen one out of four suppliers due to quality, supply performance, cost and technology criteria. In other study, Küçük ve Ecer (2007) has used fuzzy TOPSIS method evaluation of suppliers by using 17 criteria. Durdudiler (2006) used criteria of sales performance, delivery, product return frequency, collaboration and innovation to determine supplier performance by analytical hierarchy process. As a result of ranking the criteria in terms of importance, sales performance was the most important while the sorting continued with delivery, collaboration, product return frequency and innovation. In order to select the right project, fuzzy TOPSIS method was used and resulted with an ideal model in construction industry (Onursal, 2009).

3. FUZZY SET APPROACH

Fuzzy set has theory been introduced by Zadeh (1965) that is an effective approach referring vagueness and ambiguity of the human decision making process (Ecer, 2007). Real world is full of uncertain data in many technical and economical subjects. Fuzzy set approach mainly deals with inherent imprecision while it is also suitable for mathematical programming in the field.

A fuzzy set is basically determining uncertainty by assigning membership degree to individuals in the universe and identify them mathematically. The quantitative significance of membership degree are usually represented by fuzzy numbers or fuzzy interval. In practice the common use are triangular and trapezoidal fuzzy numbers. Triangular numbers are used in this study. The membership function of a triangular fuzzy number is shown as $\tilde{\mu}$. Basically, a triangular fuzzy number is identified as $(l/m/u)$ or (l,m,u) . Parameters of l , m and u are; least probable value, the most expected value and the most probable value in order. A triangular membership function is shown in Table.1 (Özdemir and Seçme, 2009:85-86).

Table 1. Triangular membership function, $\tilde{\mu}$



Each triangular fuzzy number has a linear indication of its left and right side and the indication of membership function is shown as below:

$$\mu(x|\tilde{M}) = \begin{cases} 0, & x < l, \\ (x-l)/(m-l), & l \leq x \leq m, \\ (u-x)/(u-m), & m \leq x \leq u, \\ 0, & x > u \end{cases}$$

4. FUZZY TOPSIS METHOD

TOPSIS method can be formulated as; n – dimensional field, m dotted geometric system with m alternative decision-making problem. In basis of alternative selection concept, the chosen alternative should have shortest distance to positive ideal solution while longest distance to negative ideal solution. An identified index of maximization of positive ideal solution and minimization of negative ideal solution determine which alternative is more beneficial with the ideal solution (Yoon ve Hwang, 1995).

In literature there are several fuzzy TOPSIS methods as their differences refer techniques or the numbers used. In some studies triangular fuzzy numbers were chosen while in the other the trapezoid ones. Addition to fuzzy numbers to facilitate the making of solution for group decisions and in linguistic uncertainty, some variables are used which apply words or sentences in a natural or artificial language to describe its degree of value. Fuzzy linguistic terms and their values per criteria are as mentioned below:

Table 2. Fuzzy linguistic terms and their values per each criteria in triangular numbers

Very High	(0,9, 1, 1)
High	(0,7, 0,9, 1)
Medium High	(0,5, 0,7, 0,9)
Medium	(0,3, 0,5, 0,7)
Medium Low	(0,1, 0,3, 0,5)
Low	(0, 0,1, 0,3)
Very Low	(0, 0, 1)

Table 3. Fuzzy Linguistic Terms and Their Values per Each Alternative in Triangular Numbers

Very High	(9, 10, 10)
High	(7, 9, 10)
Medium High	(5, 7, 9)
Medium	(3, 5, 7)
Medium Low	(1, 3, 5)
Low	(0, 1, 3)
Very Low	(0, 0, 1)

Source: Nguyen et. al.,2008.

The steps of fuzzy TOPSIS method as:

Step 1: Determining decision makers and selection of criteria.

Step 2: Determining the weights of the criteria.

Step 3: Normalize the decision matrix

Step 4: Calculate the aggregate weights for decision matrix.

Step 5: Determine the positive and negative solution.

Step 6: Calculate the distance from the positive ideal solution and the negative ideal solution for each alternative.

Step 7: Calculate the closeness coefficients.

Step 8: Rank the alternatives according to closeness coefficients.

Assume that in a sum of K decision maker with x_{ij}^K 's i. alternative's criteria value group; the formula for determination of alternative criterion as below:

$$\tilde{x}_{ij} = \frac{1}{K} [x_{ij}^{-1}(+)x_{ij}^{-2}(+)..(+)x_{ij}^{-K}] \quad (1)$$

w_j^K 's Formula for weights of importance of the group included j. decision criteria:

$$\tilde{w}_j = \frac{1}{K} [w_j^{-1}(+)w_j^{-2}(+)..(+)w_j^{-K}] \quad (2)$$

Normalization of decision matrix:

$$\tilde{r}_{ij} = \left(\frac{\tilde{a}_{ij}}{c_j^*}, \frac{\tilde{b}_{ij}}{c_j^*}, \frac{\tilde{c}_{ij}}{c_j^*} \right) \text{ j, benefit related criteria} \quad (3)$$

$$\tilde{r}_{ij} = \left(\frac{a_j^-}{c_{ij}}, \frac{a_j^-}{b_{ij}}, \frac{a_j^-}{a_{ij}} \right) \text{ j, cost related criteria} \quad (4)$$

While:

$$c_j^* = \max_i c_{ij}, j \in B \quad (5)$$

$$a_j^* = \min_i a_{ij}, j \in C \quad (6)$$

Multiplying the aggregate weights for each normalized criterion:

$$\tilde{V} = [\tilde{v}_{ij}]_{m \times n}, i = 1, 2, \dots, m, \quad j = 1, 2, \dots, n \quad (7)$$

$$\tilde{v}_{ij} = w_j \otimes \tilde{r}_{ij} \quad (8)$$

Determining positive and negative ideal solutions:

$$A^* = (\tilde{v}_1^*, \tilde{v}_2^*, \dots, \tilde{v}_n^*) \quad (9)$$

$$A^- = (\tilde{v}_1^-, \tilde{v}_2^-, \dots, \tilde{v}_n^-) \quad (10)$$

Calculation of the distance from the positive ideal solution and the negative ideal solution for each alternative (Önüt and Soner, 2007):

$$d_i^* = \sum_{j=1}^n d(\tilde{v}_{ij}, \tilde{v}_j^*), \quad i = 1, 2, \dots, m \quad \dots\dots\dots(11)$$

$$d_i^- = \sum_{j=1}^n d(\tilde{v}_{ij}, \tilde{v}_j^-), \quad i = 1, 2, \dots, m \quad (12)$$

Ultimately calculation of the closeness coefficients and ranking of the alternatives accordingly:

$$CC_i = \frac{d_i^-}{d_i^* + d_i^-}, \quad i = 1, 2, \dots, m \quad (13)$$

5. METHODOLOGY

We aimed to rank the suppliers identifying the benefit scores using fuzzy TOPSIS method. The investigation is done in an aluminium company that has extrusion production, surface treatment, anodising unit, power coating line, mechanical treatment, shrink and cast house. The studied firm has a 42-year business experience in the industry and placed as 18th in the 2nd top 500 leading industrial companies' list, constituted by ISO (İstanbul Chamber of Industry). Main reason to investigate this company as a case study is; collaboration with numerous suppliers, exporting products in ratio of 42% of total sales and being one of the leader companies in related industry.

The suppliers included in our method were selected by procurement director and production manager as decision makers. In accordance with decision makers' perspective and the previous studies were the major steps of criteria assignment. In-depth interview was conducted with duration of 58 min. to collect the data regarding the criteria. We have adopted 18 criteria from Küçük and Ecer (2007) study. Both procurement director and production manager evaluated four suppliers according to importance level of the given criteria.

6. SUPPLIER EVALUATION BY FUZZY TOPSIS METHOD

Decision makers (DM1, DM2) have evaluated for suppliers (S1, ..., S4) according to decision criteria (C1, ..., C18) mentioned below:

- | | |
|--|---|
| (C ₁) Price offered by supplier | (C ₁₀) Wealth of supplier |
| (C ₂) Transportation cost | (C ₁₁) Reputation |
| (C ₃) Quality of product | (C ₁₂) Production ability and capacity |
| (C ₄) Zero defected product | (C ₁₃) Taking responsibility |
| (C ₅) Supplier's effort in quality improvement | (C ₁₄) Resolution of conflicts |
| (C ₆) Holding a quality certificate | (C ₁₅) Production of exact order quantity |
| (C ₇) Reliable for on time delivery | (C ₁₆) Delivery packing included |
| (C ₈) Compatibility on demand change | (C ₁₇) Technological level |
| (C ₉) Easy to communicate | (C ₁₈) Geographical distance |

The assessment is shown in Table 4. As referring to formula (2), the most important criteria was “*production of exact order quantity*” according to decision makers. Similar result was found in a study of textile industry; the order inconsistency was an important criteria needed to be considered in supplier evaluation (Taşer and Eğilmez, 2011). Second important criteria emerged as quality of product, being reliable for on time delivery, taking responsibility and resolution of conflicts while for the third one as; compatibility on demand change, reputation, technological level. In the order of importance, the fourth consisted of zero defected products, holding a quality certificate, wealth of supplier, production ability and capacity. The fifth included easy to communicate; the sixth delivery packing included; the seventh supplier’s effort in quality improvement and the last important criteria ranked were price offered by supplier, transportation cost and geographical distance.

Table 4. Assessment of decision criteria and weight of importance by decision makers

	DM ₁	DM ₂	Weight of Importance
C ₁	H	M	(0.50, 0.70, 0.85)
C ₂	H	M	(0.50, 0.70, 0.85)
C ₃	VH	H	(0.80, 0.95, 1.00)
C ₄	VH	MH	(0.70, 0.85, 0.95)
C ₅	MH	MH	(0.50, 0.70, 0.90)
C ₆	VH	MH	(0.70, 0.85, 0.95)
C ₇	VH	H	(0.80, 0.95, 1.00)
C ₈	H	H	(0.70, 0.90, 1.00)
C ₉	H	MH	(0.60, 0.80, 0.95)
C ₁₀	VH	MH	(0.70, 0.85, 0.95)
C ₁₁	H	H	(0.70, 0.90, 1.00)
C ₁₂	MH	VH	(0.70, 0.85, 0.95)
C ₁₃	H	VH	(0.80, 0.95, 1.00)
C ₁₄	VH	H	(0.80, 0.95, 1.00)
C ₁₅	VH	VH	(0.90, 1.00, 1.00)
C ₁₆	VH	M	(0.60, 0.75, 0.85)
C ₁₇	H	H	(0.70, 0.90, 1.00)
C ₁₈	H	M	(0.50, 0.70, 0.85)

VH: Very High, H: High, MH: Medium High, M: Medium, ML: Medium Low, L: Low
DM: Decision Maker

According to Table 2. decision makers used fuzzy linguistic terms in evaluation of the suppliers. After the evaluation the linguistic terms converted into fuzzy triangular numbers where fuzzy decision matrix, normalized fuzzy decision matrix and aggregated weight fuzzy decision matrix were derived from. Following, A^* (FPIS- fuzzy positive ideal solution) and A^- (FNIS- fuzzy negative ideal solution) were determined. As the decision criteria composed of 18 criteria, meaning that $n=18$, by using equations of number (9) and (10) it is accepted as below (Chen, 2000:1-9);

$$A^* = [(1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1), (1, 1, 1)]$$

$$A^- = [(0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0), (0, 0, 0)]$$

As it can be seen, the number of component for FPIS and FNIS is equal to the number of decision criteria. To calculate the distance from A^* and A^- the Formula number (11) and (12) were used as in Table 5. below:

Table 5. The distance from A^* and A^-

Suppliers	Distance From A^*	Distance From A^-
S ₁	5,1135	14,2091
S ₂	5,7419	13,5758
S ₃	11,1163	8,0817
S ₄	7,8574	11,5754

Meaning as the scores, closeness coefficients (CC) and rank order of the suppliers are mentioned as in Table 6. below. Exemplary CC for the first supplier is $CC_i = (14,2091) / (5,1135 + 14,2091) = 0,7354$.

Table 6. CC and rank orders of suppliers

Suppliers	CC_i	Rank Order
S ₁	0,7354	1
S ₂	0,7028	2
S ₃	0,4210	4
S ₄	0,5957	3

As it can be seen from Table 6, in terms of rank order supplier with highest CC is the best. Thus, the best choice of suppliers is as $S_1 > S_2 > S_4 > S_3$.

7. CONCLUSION

In this study, we aimed to evaluate four suppliers of an aluminium firm operated in Bilecik under the subject of supplier chain- supplier choice tested via TOPSIS method. According to TOPSIS method, two decision makers responsible for purchasing evaluated alternative suppliers and determined 18 criteria attained the objective of the firm. First, DMs assessed the weights of decision criteria by the linguistic terms of very high, high, medium high, medium, medium low, low, very low and after assessed four alternative suppliers as very good, good, medium good, normal, low good and not good.

One of the most important character of TOPSIS method is to enable giving different weight of importance to decision criteria. In this way, assessment's accuracy and reliability increases. The most important criteria of DMs was "reliable for on time delivery". The assessment using linguistic terms were converted into fuzzy triangular number and in accordance with the TOPSIS algorithm; the aggregated weights and the closeness coefficients for each supplier were calculated and finally ranked in order. In ranking, the first supplier recommended as the best supplier. According to closeness coefficients for each supplier, first ranking with the highest CC is of S₁. Furthermore, CC scores of S₁ and S₂ were in a very close range (0.7354-0.7028) and draws attention. In situations such as the characteristic of the suppliers alike where making decisions is hard, TOPSIS method happens to be helpful in decision process. The most important factor in implication is, to reach the professionals as decision makers in the industry. In this context, decision makers should be objective, the criteria needed to be settled correctly and so the alternatives and the criteria can be assessed accurately.

As fuzzy TOPSIS method is very helpful on the supplier selection in the study, it can be used in various industries where the linguistic terms adequate for comparing many decision criteria to reach the alternatives. It also can be used when the group decision in question such as;

human resources management, marketing management, production management and management and organization fields.

Further studies can be done by using ELECTRE, PROMETHEE, VIKOR, VZA, AHP methods as an alternative. The comparison of the findings can be helpful to gain different dimensions for selecting the right supplier.

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HOW TO IMPROVE COMPETITIVENESS OF COMPANIES IN GRAIN SECTOR BY CHANGES OF HUMAN RESOURCE

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Summary: High decline of employment was one of the negative consequences of economic transformation in the past few decades. The activity of the rural population continues to decrease also in other countries of the European Union. This just drew attention to the fact that agriculture has a very special role in forming the employment. The aim of the research is to explore the causes of these negative trends, then to formulate some suggestions for developing and changing characteristics of human resource. In Hungarian agriculture, therefore in grain sector, the education of employees – despite of distinct improvement - is still low. Within employees of this sector there is much the largest the older-, and small the younger age groups proportion. White-collar workers represent a smaller proportion; the rate of having maximum basic school is extremely high compared to other economic branches, while university or college qualification is much lower. The majority of producers manage their company with only practical experience or even without it. Vocational training is the key factor in agricultural development. The lack of sufficient expertise makes farmers to be less receptive to innovative solutions, to more insist on production methods based on their previous experience, thereby inhibiting the modern, competitive technologies to be spread. For the competitive and efficient agricultural production human capital's appropriate skill and educational attainment are essential, this can help the sector to catch up with the more developed West.

Keywords: agriculture, grain sector, HR, employment

1. INTRODUCTION

In the 1990ies during the economical transformation, fundamental changes were taking place at the job market as well. After the democratic transformation, the number of employed people decreased dramatically. On one hand the proportion of unemployed people increased, on the other hand the number of inactive in regions of the countryside grew extraordinarily. (Czagány, 2008)

The employment and activeness reached its lowest degree in 1996-97, and then as an effect of economical stabilization and because the investments went up, until 2000 there was a reasonably fast increase in them. From then until the middle of 2007 – except one or two temporary periods – they were at a near stagnation level that turned into deterioration from the autumn of 2007. (Czagány, 2009)

According to the workforce-survey by the Hungarian Central Statistical Office (HCSO), we can say that from 1998 to 2010 the unemployment rate went up from 7.8 to 11.2 %.

The decline of employment was over the average level in agriculture. In the 1990ies among the sectors of national economy, the biggest turnout was from the agriculture, the number of those in employment reduced near a 700.000. (Czagány, 2008) The proportion of employees in agriculture was 7.4 % out of the total number of employees in 1989; however, by 2010 it was only 4.5 %.

The employment proportion of the main groups of agricultural and forestry jobs decreased from 3,6 % to 2,6 % in one and a half decade.

The number of those who were employed in agriculture, forestry-, wild- and fishing industry declined from 275.000 in 1998 to 174.000 in 2008, by 2010 this number was 172.000.

Meanwhile in 1998 the proportion of unemployed who were working in the main groups of agricultural and forestry jobs was 3.4 %, within the total number of unemployed, by 2010 this number was 2.2 %. The same proportion referring to the sectors of forestry- wild-, and fishing industry within agriculture decreased from 8.7 % to 5 %.

The activeness of rural population has also declined in other countries of the European Union in the past few decades. This phenomenon has turned an attention to the fact that agriculture, apart from food producing has an important function in employment as well, by means of it in forming the social and public environment of the countryside. (Czagány, 2008)

In the interests of increasing the employment, the improvement of competitiveness is also essential; to make it come true is necessary not to put on the Hungarian citizens' shoulders heavier loads by legal rules than that are on their competitors. (Gógös, 2009)

The present ruling government (Fazekas, 2011) considers it as a particularly important task to increase the employment and deals with agriculture as one of its stressed tool. In the National Strategic Plan, that looks out at the future until 2020, among the goals and aims the first ones are preserving jobs in the country, if possible improving them, right after that preserving rural population and reset the demographical balance. So the main indicator of the changes in the next few years is to increase the number of those in employment in agriculture.

2. CHARACTERISTICS OF COMPANIES IN GRAIN SECTOR

One of the negative consequences of the economic changes in the past decades was the great decline in employment that affected each economic sector quite differently. As also mentioned in the introduction, the fall of labour-demand came up in agriculture in the most drastic way.

According to the figures in the population workforce-survey of 2010, 3.7 million employees were in employment, the same as the previous year. Within agriculture, forestry-, wild- and fishing industry altogether 172.000 were employed, 4.5 % of the total number of those in employment.

After the slight increase in 2009 the volume of labour-outgoings in agriculture, in compliance with the long-term trend, decreased more, the importance of agriculture in employment – not as a consequence of basically the crop falling out by unfavourable weather - fell in 2010: the use of non paid labour was lower by 2.3 %, the paid labour by 2.8 % than in 2009. The volume of agricultural labour-outgoings declined by 18% in 5 years, the non paid labour fell the most significantly, by 20 %, the paid labour by 9% compared with the data in 2006. The significant reduction of labour with the non paid agricultural labour outgoings together can be traced back to the decrease of private farms at a rapid pace. The scheme of labour-outgoings did not change significantly compared with the year of 2009, the paid labour amounts one quarter to the total in 2010 as well. (Fazekas, 2011)

In 2010 according to the data of institutional labour statistics, a number of 76.000 permanent employees worked in agriculture in full-time nationwide, 14.000 employees worked in vegetable farms, 62.000 employees in farms with mixed activities. The number of temporarily employed workers was 27.000 altogether in 2010.

The number of family labour is approximately 1 million in the private farms, half a million work in vegetable farms. As a consequence of social and economical transformation, in the

years after 1990, the composition of employees according to the characteristics of property relations of the employer changed fundamentally as well. The predominance of state ownership came to an end, in 2005 only the 30% of the employees were employed by the state. As the Hungarian Central Statistical Office (HCSO) claimed in its study, agriculture is no longer an economical sector, where the role of state is determinant, only a narrow group of employees, over 6 % of them were employed by the state.

In Hungary, companies in agriculture work in different economic forms. In most of the cases, they are Ltds (limited liability companies). Their number has been growing for years, there are 16 % more recorded in 2010 than in 2006. Their number has grown by 5.6%, 405 companies, compared with the previous year. The number of joint stock companies has slowly reduced in the past 5 years, in 2006 there were 331, in 2010 there were only 319 recorded. Due to the transformations the number of co-operatives, 960 were registered in 2010, 30 % less than in 2006. The number of deposit companies is rapidly falling, as there were 3.735 in 2008, but only 3.201 were recorded in 2010, it is 23.3 % less than 5 years before.

In agriculture, forestry and fishing industry there were 420.000 businesses in registration at the end of 2010, it is 3.3 % more than a year before. Among them the number of private enterprises (it is due to the tax number registration obligation of primary producers increased 5.4 times higher in 2008) went up by 3.3 % more, furthermore the ones in the private entrepreneur registration by 5.9 %, the co-partnership by 0.7 %.

The HCSO's Common Agricultural Register of 2010 reports more accurate data about the number of farms and their agricultural activities.

According to the figures of this register the number of all the economic organisations increased from 6.954 to 8.606 in 10 years from 2000. However, the number of all the private enterprises decreased from 968.534 to 567.446. These numbers among the users of agricultural areas changed from 4.389 to 6.793, and from 922.642 to 527.108.

According to the data of HCSO referring to the vegetable producing enterprises in 2010, there were 5.480 economic organisations, 315.167 private farms, 172.867 vegetable farms and 139.457 mixed farms altogether, the total number of 320.674 enterprises. There were 4.353 economic organisations, 232.735 private farms, 115.175 vegetable farms and 115.175 mixed farms cultivating grains.

In 2010 out of the total amount of 4.611.606 ha agriculturally used area, the economic organisations used 2.191.552 hectares, the private farms used 2.420.054 hectares.

According to the HCSO 2010 data referring to economic organisations, grouped by the type of production, there were 4.654 vegetable farms and 3.437 farms with mixed activeness in Hungary.

According to the HCSO 2010 data referring to private farms there were 276.748 vegetable farms moreover 166.067 farms with mixed activities in our country.

The importance of jobs done by employees is slight. In private farms, the good producing character has been growing for the past few years, but the production is basically for their own consumption in the future too. We must count with the family labour used in private farms as well. Of course, it is true that who work in their private farms, a significant number of them do not work full-time in agriculture. (Czagány, 2008)

In the composition of all employees according to gender, there is a slight male majority, however, among the employees in grain sector – in accordance with the fact that we are speaking about a hard manual work – the majority of males quite significant- reports the HCSO survey. In 2010 the proportion of males, employed in agriculture, forestry and fishing industry, is 6.5 % compared with all the male employees, the proportion of females is 2.3 % .

Comparing in another way: 74 % male and only 26 % female of those are employed in agriculture and forestry. 417.439 males and 150.007 females work in private farms.

The age of employees is significantly different from all of those in employment, among them, the proportion of the elderly is much higher and the youth is smaller. Looking at the age composition of employees in private farms we can say most of them are over 45 and the ones over 65 is the highest.

Agriculture is one of the national economic sectors with the lowest incomes. The average gross salary who are employed full time between 1990-2007 – significantly lower than national economy average salaries – was always in the bottom third of salary rankings, in 2007 only in the accommodation service, catering sector and the sectors with lowest salaries in industry e.g. textile had workers lower incomes.

Meanwhile in 1990s nationwide the employees in agriculture could earn more than seven tenths of national economic average salaries, in 2007 it is only its two thirds.

In agriculture (forestry, wild-, and fishing industry together), the average monthly gross salary of full time workers was 143.861 HUF in 2010, the average net salary was 101.824 HUF. This is the 77% of the national average salary (132.604 HUF). The gross average salary went up by 4.9%, the net salary by 7.7 %.

The conformation of those in employment in agriculture is widely different from the one of all the employees. Among them the proportion of brain workers is significantly smaller.

In Hungary the education level of those in employment in agriculture, as in grain sector, is still low, despite the fact that it has improved a lot in the past one and a half decade. (Végh, 2008) In agricultural sector the proportion of employees with primary education is quite high comparing with other national economic sectors, the proportion of ones with secondary school education is the same, the proportion of the ones with university degree or college education is much lower.

Among the population of private farms, the ones who produce to sell, are the most educated. The HCSO 2008 study says it is a consequence of the fact their age composition, because they are much younger than the ones who produce for themselves, and besides it sell their products.

The proportions of the agricultural education of private farmers have hardly any changed for the past years. Even during the times of FSS of 2007, only near 2% of them owned a higher education in agriculture, 6 % of them had an agricultural education at an intermediate - and another 6 % of them had an only at a basic level. It says that the critical majority of them, near 87 % possess only a practical experience, or controlled their businesses even without any experience.

The HCSO 2010 data referring to private businesses says only 15.031 out of 567.446 men own a higher education, most of them, 445.340 men use only a practical experience.

In general, men have a higher agricultural education. This is not surprising, because agriculture is one the subjects, which traditionally belong to „manly” educations.

The interest in agricultural education decreased nationwide between 2002-2007 both at the secondary and higher levels of the school system, and in the adult education as well, outside the school system.

Due to the characteristics of agriculture the education that can be gained, within the frames of higher education, are quite diverse and branching out. The interest in the traditional subjects of agricultural universities (engineer of vegetable farming, breeding engineer of agriculture, etc.) has fallen in the past few years. At the same time, professions such as food engineer, landscape building engineer, economic agricultural engineer, environmental engineer,

countryside developing engineer, mechanical engineering have been attracting more and more attention.

Meanwhile, the total number of students participating in higher education fell from 424.161 to 361.347 students from 2005 until 2010, in agricultural education this proportion fell from 12.725 to 9.059 students by 2010. The number of those gaining a diploma or a scientific degree also decreased during these five years.

In agricultural education, at higher levels 463 students participated in college education, 389 students in university, 4.913 students in BSc, 802 students in MSc, 369 students participated in PhD education.

Apart from the agricultural education of the youth in the school system, the education, further training of farmers in grain sector is an overriding important task, as their level of education is reasonably low.

During the past few years, the number of people enrolling to out of school further trainings of agriculture-, forestry- and fishing industry heavily fluctuated.

In public education 162.030 students participated in professional trainings in 2005, by 2010 this number went up to 181.082. Looking at the agricultural education 6.058 students in 2005 fell to 5.758 by 2010.

As in 2011 a government's report summarized, in the agricultural education, within the school system by the term of 2009/2010 the competence based, module system of professional education fulfilled its purpose. In the current module schemed National Training Register there are 47 agricultural qualifications, but the total number of agricultural qualifications due to the part-qualifications, branches and further trainings in the register is 215.

The publishing of professional and exam demands of two new higher educational qualifications are in progress. The processing notes of the professional course books, module-learning material parts fitting to the new typed trainings are publishing continuously, at the moment approximately 330 different agricultural professional course books, notes, processed learning material that is available in electronic form, are at the students' disposal.

Practically there are 160 venues where agricultural education takes place, but in many cases we can speak about only courses of couple of students. The organising of institutions that are prepared to provide sectoral trainings into regional integrated educational centres in the point of view of schools where agricultural educational training takes place seems to mean a disadvantage.

3. SUMMARY, CONCLUSIONS, PROPOSALS

The age composition of agricultural sector is less favourable than the other sectors during the past one and a half decade – following the ageing of population – still went worse and worse. The proportion of older aged employees is significant among the workers in this sector.

The earnings of full time employees in agriculture have grown less than the national average earnings since the economic transformation, so the backlog comparing with that has also grown.

Even today, many people think that agriculture – opposite the other sectors of economy -is the area, where you can manage without a proper professional knowledge. This is only partly true, as a part of manual jobs in agriculture is like that, and you can get by without education.

The proper education and qualifications of human resources are the essential conditions of a competitive and efficient agriculture, as for a qualified labour the acquisition of modern entrepreneurial, market, marketing and technological knowledge, that are necessary to modern farming, is easier and simpler.

The professional training is one of the key factors of agricultural developing, as its essential task is to provide the youths with modern theoretical and practical knowledge, that are competitive even at international level, as well as if necessary to give opportunities to workers in agricultural sector to learn new technological methods, legal rules and market information. According to the above-mentioned HCSO study, these days the biggest problem of professional education is that it is less practice focused, the schools still put a stress on the theoretical knowledge. Students should learn more about manual works, however creating places, where practice could be done is quite difficult and expensive.

The government report about agriculture in 2011 said: one of the most important tasks of agricultural education is to promote the development of the countryside and the villages. Its strategic questions must be dealt with at every level. In areas, where the circumstances are favourable for agricultural production, making of the quality goods must be conducive with developing of professional education, improving the efficiency and building up the scheme of processing and sale.

Higher education has an outstanding importance in supply the grain sector with experts. The transformation of the institutional network in the higher education continued in 2010, the variety of courses at master level has been completed. The radical reduction of state subsidized number of students has stopped, as it was a characteristic of the past few years, the government has confirmed the position of the agricultural faculties, besides the scientific and technologic faculties. However, the valuation and re-examination of results of Bologna Process has become necessary.

As the HCSO drafted in its publication about the state of development of agriculture in 2008, without a proper knowledge the farmers are not sensitive enough to innovative solutions. They insist on using production methods based on their former experiences, impeding the spread of modern, environment- friendly and at the same time competitive technologies, holding back the joining up of the grain sector of the country to the developed western economies.

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HUMAN RESOURCES IN ROMANIA – EVALUATION, EFFICIENCY AND MOTIVATION IN 2012

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Summary: In a volatile environment such as the one we are living in nowadays, we consider that human resources are any country's valuable assets. Our research paper focuses on the role of human resources in the efficient operations of companies in order to create a greater competitiveness and to empower the potential of the companies. One of our great concerns refers to the motivations of human resources, and also on the key methods that are able to generate efficiency in times of great economic crisis such as the ones that we face today. We strongly believe that a good evaluation of human resources in terms of their potential and competences is the essence of all the developed societies. The paper has a complex structure, starting with an introduction in which we motivate our choice in the matter of the subject and state our main objectives, continuing with a relevant literature review in terms of human resources competitiveness worldwide, emphasizing the role of human resources in the great economic picture that exists today in a case study on human resources in Romania, and ending with some relevant conclusions on the importance of human resources and the limitations of our study. In our paper we, as research economists, have gave a big importance to the analysis methods of the efficiency of human resources, in our attempt to generate pertinent data on Romania's economic situation.

Keywords: human resources, evaluation, efficiency, economy, motivation, economic crisis

1. INTRODUCTION

We believe that human resources are any country's valuable assets and by putting an accent on them a country is able to improve its potential and raise the possibilities to develop and much more powerful speaking in economic and social manner.

Our research paper focuses on the role of human resources in the efficient operations of companies in order to create a greater competitiveness and to empower the potential of the companies. One of our great concerns refers to the motivations of human resources, and also on the key methods that are able to generate efficiency in times of great economic crisis such as the ones that we face today. We strongly believe that a good evaluation of human resources in terms of their potential and competences is the essence of all the developed societies.

The paper has a complex structure, starting with an introduction in which we motivate our choice in the matter of the subject and state our main objectives, continuing with a relevant literature review in terms of human resources competitiveness worldwide, emphasizing the role of human resources in the great economic picture that exists today in a case study on human resources in Romania, and ending with some relevant conclusions on the importance of human resources and the limitations of our study. In our paper we, as research economists, have gave a big importance to the analysis methods of the efficiency of human resources, in our attempt to generate pertinent data on Romania's economic situation.

In the introduction part we focus on aspects such as the field covered by the paper, the importance of the subject chosen and its main objectives, the methods and means that we are

going to use in order to conduct our study, the state of research in the field and in terms of literature review.

- *What is the field that the paper covers?*
The paper covers the field of human resources analyzed in respect to economic and social issues. The main focus is on the ways to evaluate and make more efficient the human resources aspects and also the way in which human resources can be motivated. The study is based on Romania, due to the fact that we were able to gather relevant data in this respect.
- *What is the importance of the subject chosen and what are its main objectives?*
The subject that we have chosen in terms of debate is extremely important and keeps its validity in all times and places. Human resources is a term that raised many controversies in the last thirty years, mainly due to the fact that specialists worldwide regard this subjects from different angles and in correlation with other related terms.
- *What are the methods and means that we are going to use in order to conduct our study?*
Our study presents in a critical manner the issues on human resources in Romania, in order to evaluate the efficiency and motivation of human resources in 2012, in turbulent times, such as the times of crisis. The article is a theoretical inquiry in this respect, emphasizing the Romanian experience threw already existing studies, articles and books relevant for this field.
- *Which is the state of research in the field and in terms of literature review?*
The subject of human resources is an extremely complex one, and there are many studies in this matter, including on the Romanian experience. Moreover, the literature review part that comes next will underline the importance of human resources in nowadays society.

2. LITERATURE REVIEW

In the economic literature, specialists unanimously accept that the influence of human resources in all the processes that take place is enormous and no economic act can be imagined without human resources.

Unlike the general acceptance of human resources and its role in all the aspects related to economic science, we cannot state the same about a unanimously accepted definition of human resources. Due to this fact, we would like to start our literature review part by showing that nowadays, human resources are regarded in two manners: the microeconomic manner and the macroeconomic manner. Moreover, the degree and the sphere of influence differ according to the level to which we refer to, which we believe is absolutely normal.

Initial information resources were generated by performing a literature review search through academic and research well known data bases, such as ISI Web of Knowledge, Scopus, EBSCO, EconLit, REPEC, DOAJ, Cabell's, JSTORE, Science Direct, SpringerLink, ProQuest. Bibliographies were collected from a number of leading national and international specialists on the topic of education and lifelong learning. The primary source in terms of literature review was professional journals. It should be noted that the literature search focused on studies measuring the impact of lifelong learning and education system improvement mainly on students at the universities. In addition, we focused on papers published in international conference proceedings, which took into account the topic of education and lifelong learning.

Firstly, taking into account the microeconomic level, the concept of human resources refers to the totality of the employers of a certain organization. Moreover, in the management sector the specialists have even created a distinct discipline called the Management of Human Resources, in which the employers of an organization have their own specificities, such as

their own needs, individualities, behaviour, and so on. Of course, this theory is different from the previous one, in which individuals were seen, in the traditional enterprise, as a compact mass of people.

Secondly, taking into account the macroeconomic level, the concept of human resources is regarded in different ways, but until now there is no general and unanimously accepted definition of this term. In the literature that we have analyzed, we have found several terms associated with human resources, such as “human capital”, “human factor”, “labor resources”, “labor force”, “human potential” and so on. Some of the terms mentioned here are analyzed synthetically below:

- a) In most cases, “human resources” are associated with the general term of “human capital”, but we believe that the use of the term human resources is much broader and the term human capital mainly refers to the skills, understanding, knowledge, and experience of individuals. According to Cambridge Dictionaries On-line, human resources is regarded as the department of an organization that deal with finding new employees, keeping records of their work and being able to solve their problems (Cambridge Dictionaries On-line (2012 a, b), and human capital refers to the knowledge, skills, experience of the employees of a company which makes them valuable to their employer.
- b) In other cases, the term “human resources” can be found in association with the term “human force”, but between them, there are some differences as well. The term labor force refers to all the people in a country who are of the right age to work or to all the people who work for a company.

In most cases, in respect to the macroeconomic level, human resources are regarded as work resources. Due to this fact, some authors define human resources as part of the population of a country, which includes persons able to work and capable to engage in various economic and social activities (Mathis, Robert L., Nica, Panaite C., Rusu , Costache, 1997). We believe that this definition is not complete, because it excludes some important segments of the population, such as, for example, young people who continue their studies and who, according to this definition, are in the impossibility to interact and engage themselves in economic and social activities.

Furthermore, we believe that the term human resources is extremely complex and gives the possibility to include much more characteristics than the term work resources, such as the labor capacity of people, the people engaged in learning and research activities, the health aspects, and so on. In the meanwhile, the term work resources (Adumitrăcesei, I.D., Niculescu, E., Niculescu, N., 1998) implicate the number of persons capable to work which posses the physical and intellectual capacities to conduct a useful activity.

3. RESEARCH AND METHODOLOGY

The research and methodology part of our paper aims to present the fact that our paper is structured in a unitary manner, and is based on data gathered and previously processed by the Romanian National Institute of Statistics from the Statistical Yearbook 2010. The data gathered reflect the time period starting from the year 1960 and ending with the 1 of July 2009, differing according to the topic to which we make reference in the paper.

The paper is mainly referring to descriptive statistics, due to the fact that we analyze previously gathered and analyzed data. The main source of our figures is represented by data published by the Romanian National Institute of Statistics.

4. HUMAN RESOURCES – ROMANIA’S EXPERIENCE IN 2012

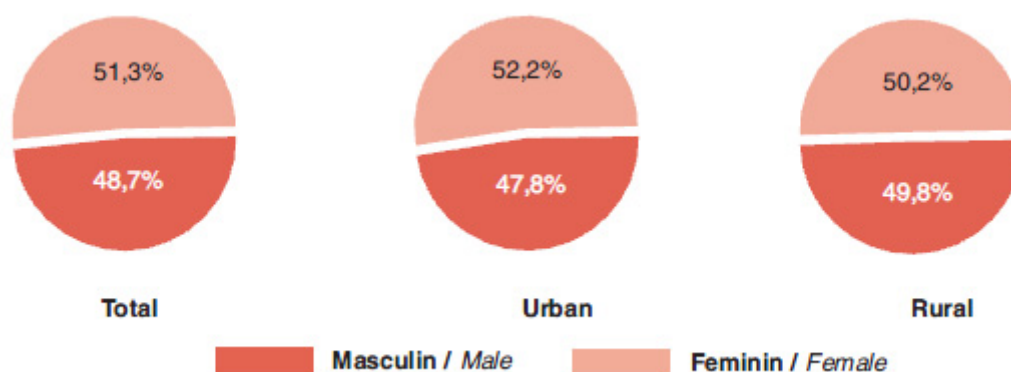
4.1. HUMAN RESOURCES – A SHORT STATISTICAL ANALYSIS

Human resources and their evolution can be analyzed using multiple approaches. Some of these possible methods are presented below.

1) One method that might be used in respect to human resources analysis in our paper refers to the population’s structure by gender and area. In this matter, our sources were the data available from the Romanian National Institute of Statistics, and the last version of the data is from 2010. The sources used by the Romanian National Institute of Statistics for the statistical survey were the population censuses; statistics from current evidence of population and registrations from civil register evidence.

According to the data provided by the Romanian National Institute of Statistics for the year 2010 (see, in this matter, Figure no. 1: Population’s structure by gender and area in Romania, year 2009 (part I)), we can state the fact that from the total of population, 51.3% are female and 48.7% are male. Furthermore, if we analyze the data provided by the Romanian National Institute of Statistics for the year 2010, we can continue by stating that in the urban area, from the total of the population living here, 52.2% are female and 47.8% are male; moreover, from the total population living in the rural area, 50.2% are female and 49.8% are male.

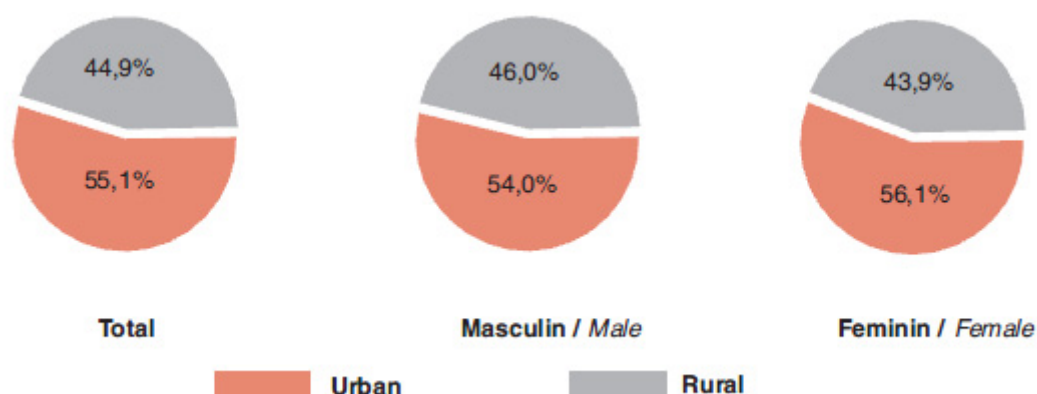
Figure no. 1: Population’s structure by gender and area in Romania in 2009 (part I)



Source: Romanian National Institute of Statistics, Statistical Yearbook 2010, Section 2: Population, pg.2

The figure below (see, in this matter, Figure no. 2: Population’s structure by gender and area in Romania, year 2009 (part II)) presents the percentages of population as a whole, and according to these data, 55.1% of the population live in the urban area and 44.9% of the population live in the rural area.

Figure no. 2: Population's structure by gender and area in Romania in 2009 (part II)

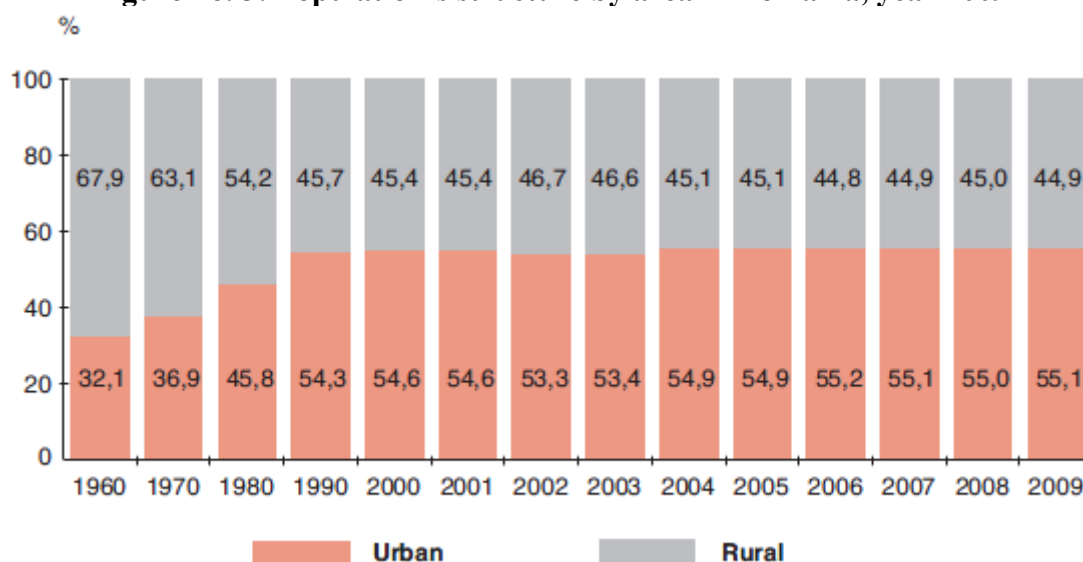


Source: Romanian National Institute of Statistics, Statistical Yearbook 2010, Section 2: Population, pg.2

Out of them, 54.0% male live in the urban area and 46.0% male live in the rural area, while 56.1% live in the urban area and 43.9% live in the rural area.

2) Another method that we can use refers only to **population by area**. The Romanian National Institute of Statistics stated the fact that the population breakdown by area was calculated as follows: a) for the time period 1960 – 1966, the data gathered included municipalities, towns and 183 localities assimilated to the urban area; b) for the time period 1966 – 1967, the data gathered referred to municipalities, towns and 238 communes assimilated to the urban area; c) starting from the year 1968, the data gathered referred only to municipalities and towns (*see, in this matter, Figure no. 3: Population's structure by area in Romania, year 2009*).

Figure no. 3: Population's structure by area in Romania, year 2009

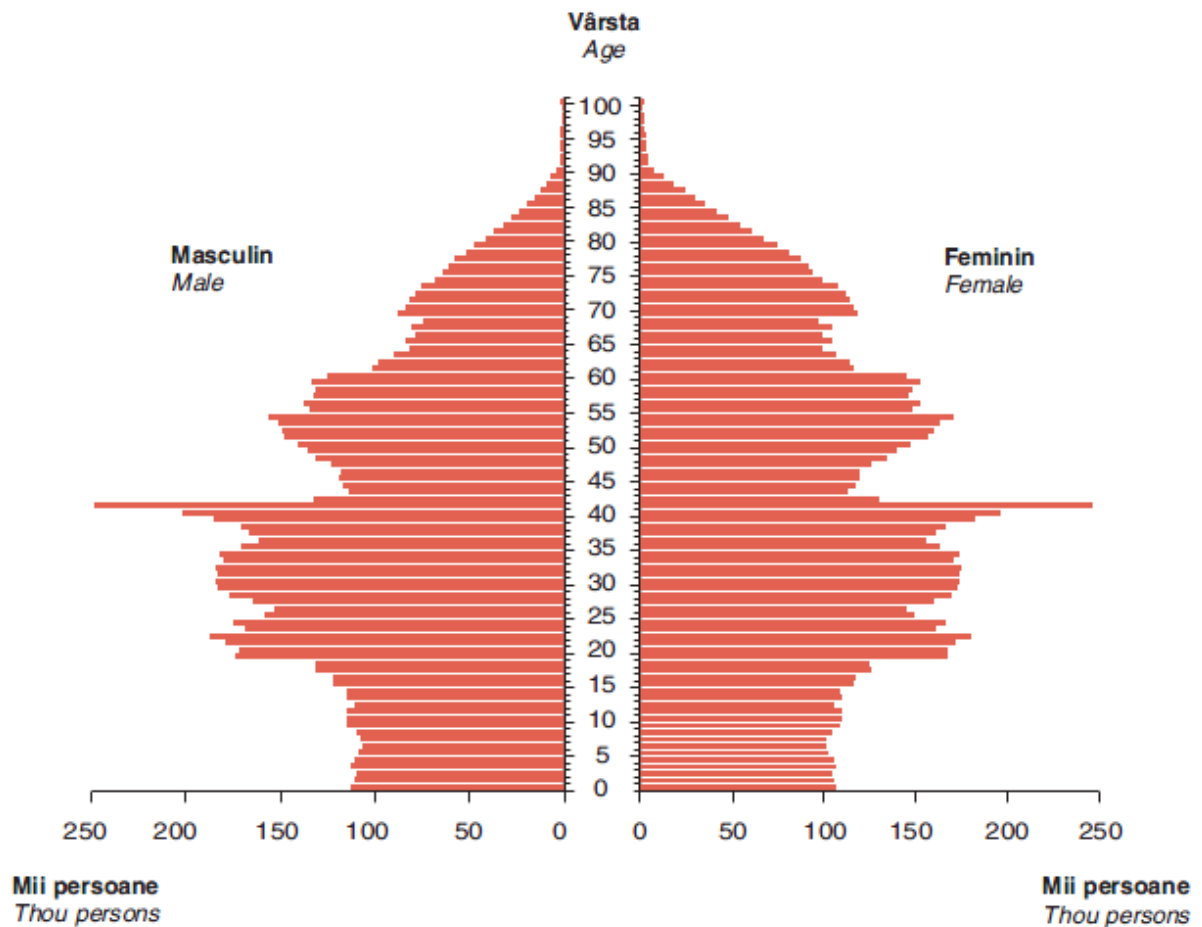


Source: Romanian National Institute of Statistics, Statistical Yearbook 2010, Section 2: Population, pg.3

By analyzing the figure above we can notice that the population by area in Romania maintains a normal evolution between the time period 1960 and 1 July 2009, and after the year 1990 we can even state the fact that the trend maintains almost a constant evolution.

- 3) In addition, we can also use the method of population analysis taking into consideration **the age factor**. According to the Romanian National Institute of Statistics, the age is expressed in the years reached during the year.

Figure no. 4: Population's structure by age in Romania, year 2009



Source: Romanian National Institute of Statistics, Statistical Yearbook 2010, Section 2: Population, pg.3

Taking into account the three possible methods of human resources analysis presented above, we can conclude that in a country human resources can be referred to by area, age, gender. We believe that all these three forms of characterizing the human resources are relevant and in the end can influence human resources evaluation, efficiency and can generate concluding motivation for its members.

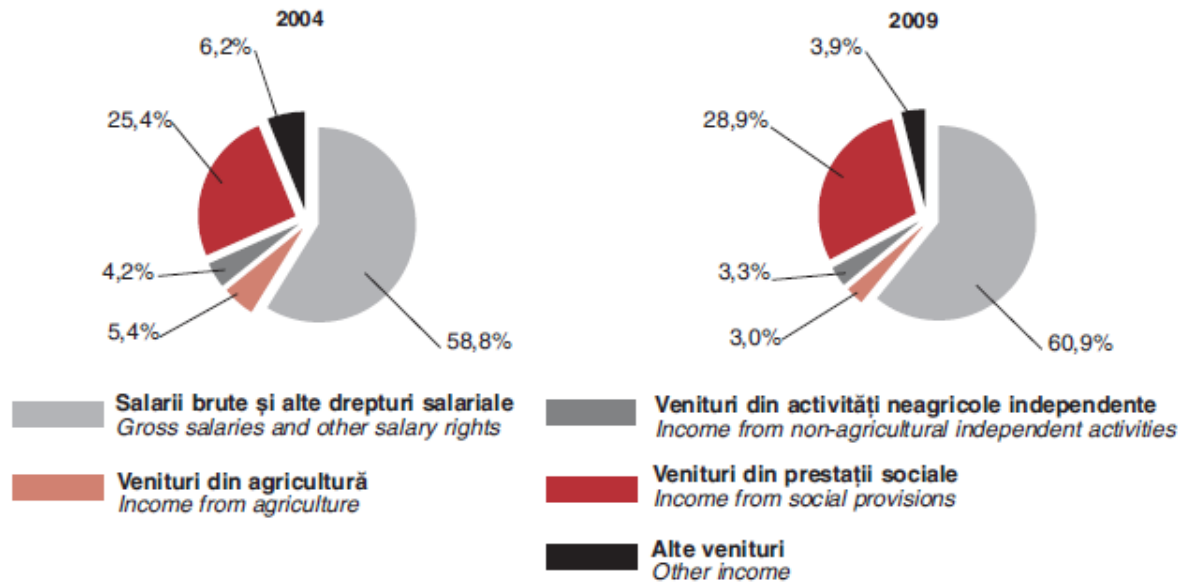
4.2. HUMAN RESOURCES – EVALUATION, EFFICIENCY AND MOTIVATION IN 2012

Specialists believe that there are several ways in which a country can motivate the human resources and also in which human resources can be evaluated and influenced in order to become more efficient.

For example, a well-known motivation for human resources is the level of income. Moreover, the level of income for a person should be according to the level education, the level of knowledge, the level of implication in a company, the degree in which that person spends the time in order to attract greater benefits to the company or the one who offered him the job. In most cases, and due to lifelong learning programs, employers offer the possibility for their

employees to have access to specific training programs, in respect to the needs of the company and the market trends. So, due to this fact, the employees can also be rewarded by facilitating their access to free or partially played training programs.

Figure no. 5: Structure of money income, 2004 versus 2009



Source: Romanian National Institute of Statistics, Statistical Yearbook 2010, Section 4: Section 4: Income, Spending and Population's income, pg.11

In the figure above (see, in this matter, Figure no. 5: Structure of money income, 2004 versus 2009) presents details concerning the family budgets. The data were collected by the Romanian National Institute of Statistics under the form of a survey, which allowed collecting information on household consumption, income, expenditure and so on. According to the Methodological Notes belonging to the Statistical Yearbook 2010, the survey had been carried out in 780 survey centers, distributed in all counties of Romania, and also in Bucharest Municipality sector. From the data presented the differences between the years 2004 and 2009 in respect to the gross salaries and other salary rights is very small, from 58.8% in 2004, compared to 60.9% in 2009. The income from social provisions has slightly increased in 2009, compared to the year 2004. The income from agriculture represents 5.4% from the total income in 2004 and 3.0% from the total income in 2009, which shows a decrease of 2.4%.

5. CONCLUSIONS

In conclusion, the paper "Human resources in Romania – evaluation, efficiency and motivation in 2012" emphasizes the aspects bellow:

- The human resources are the main asset of a country, due to the fact that they are the most implicated resources in all aspects connected to the economical and social parts of life. Their evolution influences the countries development.
- According to the articles, books, studies and research existing today, the term human resources can be generally associated with other terms, such as "human capital", "human factor", "labor resources", "labor force", "human potential" and so on. However, none of these terms is as complex and as well defined as the term of human resources. Moreover, due to the complex evolution of this term, there is no general and unanimously accepted definition of the term human resources.

- In our acceptation, human resources should be regarded in strong connection to the competitiveness of a country and its capacity to provide competitive advantage from other nations. Moreover, human resources must be seen also in close connection with the degree of knowledge and its ability to motivate and generate efficiency at all levels.
- There are many ways in which human resources can be delimited and defined, and probably the most common ones are by means of age, gender, area evolution.
- A well known way to motivate human resources is through the aid of money, so income is a key element that can show the level of satisfaction in a company, or in a country.

The paper was strongly connected with the situation existing in Romania and the data that the study was based is mainly the one provided by the Romanian National Institute of Statistics and published in the Statistical Yearbook 2010.

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INTERFACES OF LIFELONG LEARNING AND HIGHER EDUCATION

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Summary: In the past decade, the notion of 'lifelong learning' has become an indispensable notion in higher education too; a fact predominantly resulting from the transformation of the socio-economic environment of education and its dynamic changes, and also from the change occurring in the relationship between this environment and the world of education. The findings of economic surveys carried out in recent years, decades have proven the existence of the interactive relationship between the quality of education and the growth rate of economy. Higher education forms a vital part of economy and society, and through its interconnections, the research and cognition of learning from each other may provide further opportunities of learning. Lifelong learning is an inseparable part of the Bologna Process in every respect, which is equally facilitated by the improvement of acknowledgement of previous knowledge, by the creation of more flexible learning routes, and last but not least by the extension of access to higher education. The success and its measure in gaining access into the circle of the international higher educational institutions will be a great challenge for the Hungarian institutions of higher education. The aspect of assuring equal opportunity and equity must be stressed steadily by the domestic socio-economic changes. In the interest of the further expansion of lifelong learning, it is of great importance that the access to higher education should be extended, and also the educational attitudes should be changed.

Keywords: reform of higher education, lifelong learning, the Bologna Process, two-cycle system, knowledge-based society

1. INTRODUCTION

These days knowledge is considered the most valuable factor providing competitive advantage and improvement. Urged by the European Council in June 2000, the member states of the EU were asked to take practical measures, namely to facilitate 'lifelong learning', which means the corner stone in the strategy which was intended to make Europe the most competitive and dynamic knowledge-based society in the world. Regarding the highest educational level, the institutions of higher education must provide the opportunities for the improvement of knowledge and abilities. It has been well known since 2001 that lifelong learning is one of the most important elements of the European Higher Education Area, it is an inseparable part of the Bologna Process in every respect. In my study, my intention is to demonstrate the interconnections of education and training with the labour market and its challenges; the conceptual background of lifelong learning will also be covered, and it will be presented how the approach to 'lifelong learning' has become a directing principle in the territory of European higher education.

1.1 RELATIONSHIP BETWEEN LIFELONG LEARNING AND HIGHER EDUCATION, CONNECTING POINTS WITH THE BOLOGNA PROCESS

The educational structure can properly adopt the labour demand only if it adapts flexibly to the requirements of the labour market. It is becoming necessary to introduce a new type of system of education and training, in which the conventional school system is able to ensure

the conveyance of the ever-changing and improving knowledge base more effectively than ever. This must be supplemented with the preparation for 'lifelong learning'. According to the educational conception of the European Union, considerable amount of attention should be paid – beside the conventional institutional system – to the establishment of the institutional network of higher education and adult training, which, being adjusted to labour market demands, supports the citizens in finding the most appropriate training forms matching their individual goals. (Nagy, 2005)

Although the conception of 'lifelong learning' already appeared in Europe about 50 years ago, the ambition to harmonize it consciously has been observed since 1990s. (Derényi, 2007) Lifelong learning had become one of the directing principles of the European higher education in this manner, as it becomes obvious from the Sorbonne Declaration ratified in 1998, which called upon the establishment of the open European Higher Education Area. The publication of the Declaration was followed by wide publicity (based on Hrubos study); its further development was the launch of the Bologna Process from June 1999. The issue of higher education has received a highlighted role in the European integration process, right from the start.

Primarily, it is not intended in my study to provide a historical review, nor to describe various university models, however, it can be stated that the major points of relevance are appropriate. Based on her study dealing with the idea of the European Higher Education Area, Ildikó Hrubos Dr. distinguishes three models of higher education. Firstly, the British model, whose tradition-preserving role is emphasised mostly. The universities here are corporative organisations, subsidised mainly by either church or secular resources, not by governmental ones. The second is the continental European model, in which the government has a definitive role in financing and controlling its content. The third model is the American model, in which the university has the task to convey socially and economically useful information and knowledge, and to carry out research. (Hrubos, 2006)

I highlighted the issue of financing primarily because at the beginning of this year there was a stir-up as it became public to what extent the Hungarian government is willing to subsidise the full-time participants of higher education from the next term.

As a reaction, it can be said that the role of governments in subsidising and founding institutions of higher education already became firm in the 1970s. Since then a considerable expansion in higher education has been observed, the most spectacular manifestation of which was the increase of student figures. On the other hand, it also produced a negative effect, that is, diplomas were primarily attributed 'only' symbolic value. It was completed by the idea, according to which there would be a need for mainly less time-consuming and more practice-oriented trainings, which are adjusted, to the demands of the labour market. This is how the idea of 'lifelong learning' came to the surface, since it is going to be acceptable after a while that the individuals will change profession or career more times during their lives, therefore they will be compelled to participate in new training programmes.

Examining the crowding phenomenon from the economic point of view, it is obvious that the individual will make a reasonable choice of going on to higher education as long as it results in gaining higher income than it would happen with a qualification of lower level. Furthermore, it can also be stated, coming back to the recent events in Hungary, that the fact of the proper adaptation to the labour market is not so definitive by varying the frame numbers.

I highlighted the issue of financing in the first place because at the beginning of this year there was a stir-up as it became public that the Hungarian government reduced the government subsidised frame numbers of the higher education in January 2012. The main reason for that

was explained with the preference for training programmes in engineering, informatics and science in the adaptation to the labour market.

2. THE BOLOGNA PROCESS

2.1 NAME OF THE PROCESS

As mentioned in the 'Introduction' section, my aim is to give a short review of the Bologna Process as, in my opinion, it is the most worthy possibility of reflection to the circle of various issues. The Bologna Process was named after The Bologna Declaration, which was ratified by the ministers of education from twenty-nine European countries on 19 June, 1999.

This declaration is the voluntary political covenant of the ratifiers, according to which they are willing to standardize their systems of higher education, they will make them comparable and permeable, and furthermore they will establish the European Higher Education Area.

At the very start, the importance of the Bologna Process was seen in the foundation of the European Higher Education Area, which provides wide access to higher education functioning by the democratic principle and the freedom of science, prepares the students for the entrance to the labour market, and last but not least encourages mobility for the participants of higher education.

Today, 46 European countries participate in the Bologna Process. All of them are signatories of the European Cultural Convention, and devoted to the objectives of the European Higher Education Area. The Bologna Process was launched by a non-binding European-level agreement (the Bologna Declaration, 1999); as a result, significant institutional and system reforms of higher education were initiated all over Europe. Within the frames of the Bologna Process, work is going on in socially more considerable areas such as higher education, research and development, innovational relationships, equitable participation in higher education and lifelong learning.

2.2 ESSENCE OF THE BOLOGNA PROCESS

The essence of the Process lies in the fact that at its start, very different European structures of higher education were to be brought together and harmonised with the international standards. The main features of the new system were summarized as follows:

- The establishment of a transparent structure of three comparable degrees in the higher education system: Bachelor's degree, Master's degree, and PhD;
- The completion period of the Bachelor's degree training will not be shorter than three years, undergraduate students will receive a college degree;
- In quality management, supporting the development of a Europe-wide cooperation based on standardized criteria and methods, supporting higher education with its required European relevance;
- The establishment of a credit system, which encourages mobility among students and may be used in various other systems such as in that of lifelong learning.

Under these conditions the system would be in harmony with the European conventions and demands, with being attractive for students; the competitiveness and marketability of the educational system as well as those of the graduates would be firm in the labour market, on national, European and global levels.

2.3 STRUCTURE OF TRAINING

The description of the training structure is of great importance, since there are some questions to be formulated in terms of it. The Bologna Process has focused on the simple, practice-oriented training structure. According to the Hrubos study, training is realised through two basic models. One of them is the combination of the conventional university level of education and the newly established non-university training. As these two sectors are differently structured regarding the curriculum, the institutionalised transition was not possible. Beside this model, the article introduces the term of the linear model, where the students may participate in various programmes founded on each other. On the lower level of training, the training schemes are both theoretical and practical. This dual nature comes from the idea of giving the students the freedom to choose from two alternatives, namely, either to go on to a level of higher education or enter the labour market. (Hrubos, 2000)

However, what is worth mentioning about the realisation of the process considering the training structure is that various solutions of the multi-cycled training were born in different European countries and in various professional fields. At first sight, it appears conspicuously in the completion periods of trainings. The most common training structure is the 3+2 but the 4+2, 4+1.5, 4+1 or 3+1.5 structures have also appeared. (Hrubos, 2010) More details on the 3+2 training structure will be described below.

First of all, it must be pointed out that the implementation of the training structure was basically carried out within legislative frames. The training register defining the training schemes was also created, the aim of which was the reduction and simplification of the number of faculties of the earlier dual structure. Moreover, the system of conditions and process of establishing and launching training schemes were also regulated.

I would like to present the progression of training in the case of the 3+2 years scheme. It should be remarked here that there is still one more number 3 added to the structure. The first degree is the Bachelor's degree (BA/BSc), which means the first three years in higher education. The participant receives general theoretical and practical knowledge, and a further objective is to provide students with useful knowledge, which they can use after the transition to the labour market.

Then comes the second cycle of the training, labelled 'Master's degree' (MA/MSc), which may be entered after the successful graduation from the at least three-year first cycle. Graduation from the Master's degree means receiving a university diploma. According to the original plans, this is going to be 'the European degree', which should be harmonized in the European Higher Education Area, in particular the mutual, smooth acknowledgment of diplomas.

Finally, the PhD training may be considered to be the highest level of education, which means a full-time training of generally three years of completion. The ministers added it to the Bologna Process as the third cycle in 2003 when an agreement was reached that the most important element of PhD training is the extension of knowledge through original research, furthermore, that the PhD programmes may be able to facilitate the improvement of transferable knowledge and skills in accordance with the broader labour market demands.

During the problem diagnosis, questions arise about the reason for existence of the university ground degree in Hungary. From another aspect, in other words, why is there a demand for a qualification, which does not provide real qualification? The primary goal at the foundation of the training structure was to produce a group of graduates after a relatively short training duration, which may appear in the labour market with competitive knowledge.

In my opinion, problems have always appeared when a new training form was implemented in a certain field while the former was still functioning. Considering the Hungarian characteristic features, it can be pointed out that before the implementation of the Bologna Process; there had been two training cycles present. One of them was a system of short-term, profession-oriented advanced trainings, the other was the PhD programme based on the training scheme. Adding the college and university training to this, I find that the replacement of the conventional dual system (college and university training) with the Bachelor's and Master's degree trainings proved to be a great challenge. At the same time, the realisation of the domestic frame system – as revealed by the above-mentioned 2006 Follow-up Project (Temesi, 2006) – cannot be considered meritorious.

In connection with the previous point, a critical point in the clash of the old and new training systems is the run-out of the conventional trainings. This issue must still be dealt with in the present as there are numerous students remaining even until today, due to the credit system built out in the conventional training structure. I can assert it on the base of my experience, facing this phenomenon myself as a teacher. What is more, serious problems emerge during certain exam-periods partly owing to the fact that these students remaining from the conventional system studied a given subject so long ago that neither do they remember the requirements nor the material in the curriculum. Examining this issue from the aspect of the training institutions, they are compelled to maintain the subject offer of the conventional faculties even for years in order to ensure the opportunity for the lagging students to fulfil the training requirements. The simultaneous management of the various subjects of the two different training systems produces considerable additional costs for the institutions.

Finally, the appearance of the factor of uncertainty can also be considered negative. It appears on the side of students, teachers, parents and even the labour market. What is meant here is that it is present in the life of institutions until the end of establishment of the complete training structure. This factor becomes essential when it comes to the solutions, which may differ, from the optimal during the planning, processing and implementation of training schemes.

2.4 COMMON DEGREE CERTIFICATES

The Bologna Process made way for the cooperative, trans-border educational programmes of the latest type. The qualifications defined as 'common certificate' are generally characterised by the following crucial features:

- Programmes providing 'common certificate' are elaborated and approved co-operatively by several institutions;
- Students spend considerable periods at the partner institutions as exchange students;
- Terms and successful exams by the partner institutions are accepted fully and automatically by all of the participating institutions.

The above-mentioned features are general, it is clearly and accurately defined what the basic points of common certificates should be but, unfortunately, these issues appear in different forms in reality. Obviously, the uniform management of the training schemes launched by universities and colleges generates basic problems. The European harmonisation of the trainings may be realised in the opportunity of obtaining numerous stages of degrees, by means of which it will be possible to interrupt and continue the studies, and to ensure mobility among the institutions of higher education. Unfortunately, its realisation in practice has taken place differently, what is more, owing to the various implementation processes of the

countries during the change of the educational structure in the European Higher Education Area, there are significant obstacles in reconciling the trainings.

2.5 THE ISSUE OF MOBILITY

The European Higher Education Area was established with the primary goal of contribution to the mobility, in this respect, a considerable advancement can be observed. It may as well be declared that one of the success fields of the Bologna Process is the realisation of the mobility of students and even teachers, which also gained ground with good results in Hungary. The number of students and teachers leaving Hungarian institutions for foreign ones is increasing annually, and this proves to be true vice versa, since plenty of students and teachers are arriving in Hungary from abroad. Apart from the positive effects of mobility, there are still some problems to be overcome in this area. The critical issue of mobility in the European Higher Education Area is the direction of student migration, resulting in the lack of balance in the target areas. This lack of balance may still be observed in the input and output number of the participants, by analysing this factor it continues to show the differences between the standards of living, moreover, diplomatic and bureaucratic obstacles also tend to appear (e.g. Hungary's accession to the Schengen Agreement)

2.6 EMPLOYMENT AS THE MAIN ASPECT

The aspect of employment has been focused on in the establishment of the cyclic training system since the very beginning. In terms of the Bologna Process, employment means the ability of obtaining the first workplace, keeping occupied and that of the mobility in the labour market. Employment has been one of the main objectives of the Bologna Process since it was launched. Each cycle of higher education is expected to provide a qualification which is efficient and profitable in the labour market. Problems have also emerged regarding this matter, namely, the process of change was distorted by local interests, implying that certain institutions did not pay due attention to the didactic differences during the separation of the Bachelor's and Master's degrees.

3. CONCLUSION

Higher education has seen several reforms since the early 1960s. The European Higher Education Area while being established and developed is gradually starting to draw increasing interest in other parts of the world, as being highlighted in conferences of the European and international partners regarding the specialised political issues. The success and its measure in gaining access into the circle of the international higher educational institutions will be a great challenge for the Hungarian institutions of higher education.

The aspect of assuring equal opportunity and equity must be stressed steadily by the Hungarian domestic socio-economic changes. In the interest of the further expansion of lifelong learning it is of great importance that the access to higher education should be extended, and also, the educational attitudes should be changed. The restructuring of the accreditation culture and the establishment of permeability among the institutions will have considerable functions in the process; in addition, the mutual and bureaucratically smooth acknowledgment of the certificates will be an important measure. Furthermore, the assessment of tuition work and capacity will be crucial along with the restructuring of the current job culture, which may obviously take significant time. While shaping the higher educational policy, the real involvement of the participants and the coordination of the individual and institutional goals must be highly emphasised.

The natural consequence of the wide expansion of lifelong learning is that career planning is becoming general. The young individuals entering the school-system and the working adults plan their career, in which education has a highlighted role, a place and time planned in advance. The institutions of higher education are expected to adapt to this with their supply of training schemes. Each student in higher education should be offered a training route at the university, which is clearly adjustable to his or her individual career; already in the period of obtaining the first degree.

Not only is it urged by the increasing expenditure of the higher education with a resource gap and the tightened governmental subsidies, but also by the frequently mentioned prestige and respect, that is, the universities should have the right and responsibility for the professional training of their former students within their grasp. The credit system offers a good and quick opportunity to realise this task in Hungary as well, which may found the basis for the domestic and international further improvement of higher education faculties.

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SELF - EVALUATION AS A TOOL FOR MEASURING EDUCATIONAL SERVICES IN HIGHER EDUCATION

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Summary: In the article a precise profile of applying self - evaluation as a tool for higher education services assessment was given. It indicated the methodology, the conceptual model of service consumption assessment according to this tool, and it presented the advantages and disadvantages of applying the self - evaluation in service assessment. Moreover, one of the self - evaluation methods CAF was analyzed. The questionnaire classification by different criteria and the description of included questions was made. Some advantages and disadvantages of using the questionnaire in researches on the assessment of higher education services were indicated.

Keywords: self-evaluation, education in high school, consumption, self-assessment methodology, questionnaire classification

1. INTRODUCTION

At present, evaluation is more than having control or measuring functions. When used as a procedure of quality measurement, it fulfils many additional functions, such as (Majewski, 1999, p. 1-5):

- describing and explaining the examined reality,
- contributing to understand the examined reality by gathering some information about attitudes, experience, respondents' opinions expressed in their own categories.

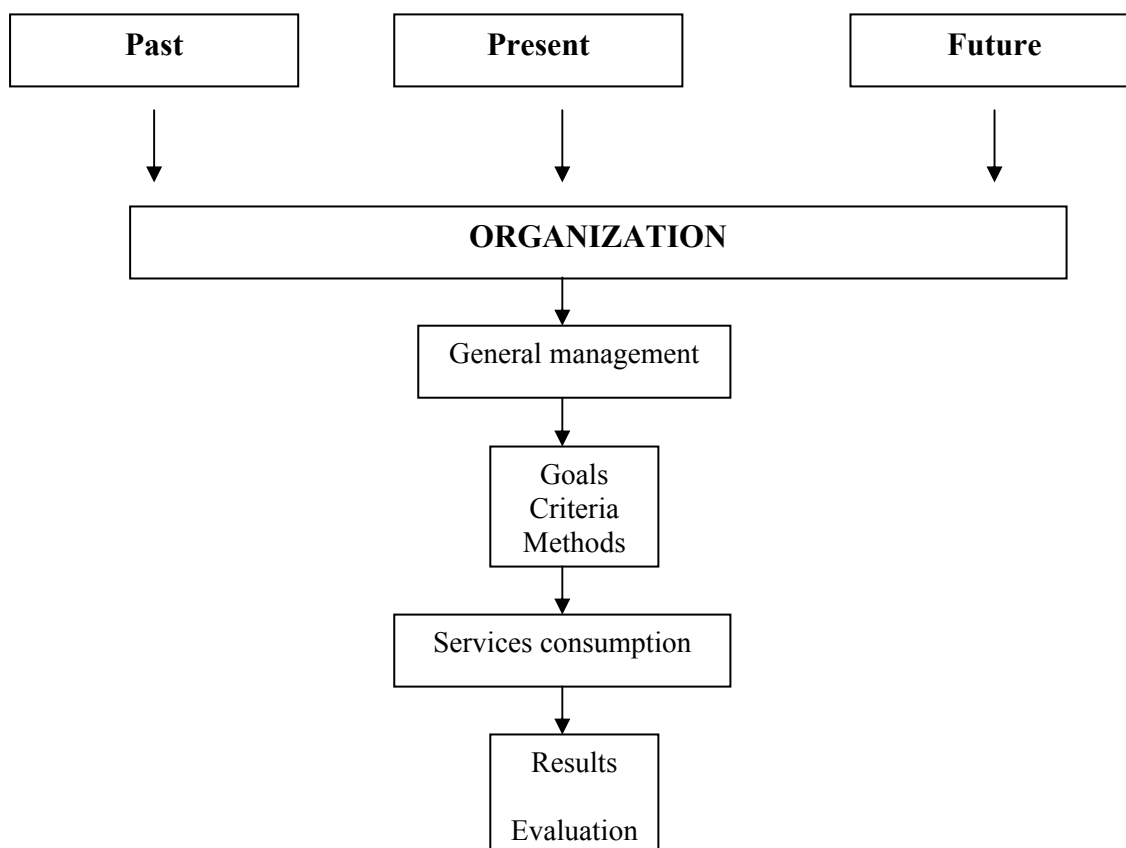
2. SELF-EVALUATION IN HIGHER EDUCATION

Self-assessment serves for measuring higher education services on different educational levels (as well in higher education) and it is close in meaning to evaluation. Evaluation is a continuous process of self-assessment, where a present condition is compared with the previous one and on this basis, some conclusions about the progress in improving educational services consumption may be drawn (Godzwon, 2007, p. 41). The evaluation features, which agree with a classic measurement, are (Godzwon, 2007, p. 41):

- setting evaluation criteria,
- using standardized qualitative methods,
- getting the opinion of different engaged groups, people.

According to the standard EN - PN ISO 9000:2006 (Norma PN - EN ISO 9000:2006, *Systemy Zarządzania Jakością, Podstawy i Terminologia*, 2006, p. 21) the organization's self-assessment is a wide - ranging and systematic review of organization's actions and the results of these actions which relate to the quality management system or perfection model. Self - assessment may provide a whole view on organization's functioning and maturity level of quality management system. It may also help the organization in identification of areas that need to be improved and in determining some priorities (see Fig.1).

Figure 1.: Conceptual model of consumption measurement according to the self-assessment tool



Source: own study on the basis of: Z. Godzwon: *Samoocena*, op. cit., s. 41; Polska Nagroda Jakości, Konkurs - Nagrody Zespołowe-Organizacje Edukacyjne, Komitet Polskiej Nagrody Jakości, Warszawa 2004, s. 5 - 11; S. Zapłata: Ocena systemu zarządzania jakością w organizacji, Przegląd Organizacji 3/2003, s. 36.

Self-assessment methodology according to Polska Nagroda Jakości (2004, p. 5-11) and Zapłata (2003, p. 36):

- it consists in complex, systematized , regular review of actions taken by an organization and reached results on the basis of a chosen model,
- it is an unformalized action, its result depends on the employees’ engagement in realizing goals and organizational culture,
- it sets the degree of realizing goals and enables to find out about the actual state and to plan some further actions,
- it ensures the organization to have a systematized attitude to identify its advantages and some areas which need to be improved,
- it enables the identification of „good practices” and sharing the knowledge about them inside the organization and comparing with other organizations.

As far as educational service consumption measurement is concerned, in higher education the following self - assessments are used:

- reports prepared for the Accreditation Commission (they contribute to ensuring an appropriate quality, where the Commission decides if the educational offer meets the expectations accepted in educational standards and the major is credible),
- based on Perfection Model criteria - European Foundation of Quality Management, where the criteria of Polish Quality Prize for Educational Organizations were built.

Depending on goals, criteria, methods and frequency of carrying out the self - evaluation, its results enable to measure the progress and present a reliable piece of information for actions to be improved.

The advantage of his tool is a simple use. The self-assessment of the measurement of educational services consumption from the stage of setting the goals through the realization, effects' monitoring to drawing some conclusions gives the possibility of improving the actions taken in the process. Carrying out the evaluation with this tool in analogous, cooperating higher schools will give a good benchmark of educational services (Godzwon, 2007, p. 41).

One of the forms of self - assessment is CAF - The Common Assessment Framework (The Common Assessment Framework (CAF). Improving an organization through self-assessment, 2008, p. 8-12).

It is a tool of the complex quality management, inspired by European Foundation of Quality Management and the model worked out at Speer University. It is based on the thesis that achieving the desired results of actions of an organization, consumers, employees and the society depends on the leadership affecting the policy and strategy, employees, personal relations, resources and processes. According to this method, the organization is being observed and analyzed from different points of view within the confines of a complex results analysis process of its activity. The CAF method was designed for being used in different public sector organizations - at the national, regional or local levels, in different activities, such as: a part of the reform programme or improving the actions of specific organizations providing public services. In some cases, especially when big organizations are concerned, self-assessment may be carried out at the level of particular branches or departments.

CAF is a general method and there are no obstacles for its individualization - on condition that some basic elements will be kept: 9 basic criteria, 28 detailed criteria and scoring.

Criteria (leadership, strategy and planning, employees, partnership and resources, processes) dealing with organization's potential determine the activities that the organization is involved in and the way it achieves the desired results.

After analyzing some other criteria such as: activities' results in relations with clients, activities' results in relations with employees, social activities' results, crucial activities' results, their achieving on the basis of opinion surveys and internal indicators assessment is considered. Each criterion is composed of some sub - criteria. Sub - criteria (28 altogether) define the issues that need to be mentioned while making the organization's assessment. The CAF method gives the organization an important instrument that starts the process of a continuous improving. This method enables (The Common Assessment Framework (CAF). Improving an organization through self- assessment, 2008, p. 10):

- the assessment based on proves, using the criteria set presented in public administration units in Europe,
- checking if the assumed progress and initiating level were obtained
- achieving the cohesion of actions taken and consensus in the case, which ought to be done in order to improve the organization process,
- achieving the integrity between the attained results and the potential use,
- attract the employees' attention and encouraging them to the improvement process engagement,
- spreading the experience of good practices and sharing them inside and outside the organization,
- including different initiatives concerning the organization's improvement into everyday organization's activity.

Self-assessment and improvement activities in public organizations would be extremely difficult to achieve without obtaining credible pieces of information about different functions to be realized by these organizations. The CAF method encourages public sector organizations to collect and use the information, although such a piece of information is not available yet while making the first self - assessment. Self - evaluation can make teachers and students in a questionnaire.

3. CONSTRUCTION A QUESTIONNAIRE

The questionnaire form is most often applied to the purpose of fast conducting examinations amongst populous communities. One of this peculiar type is written interview. The role of the investigator is to choose those who intend to submit to testing, distributing questionnaire forms, indicating the manner of their return and collect the returned questionnaires. The anonymity of filling the questionnaire, standard questions included in it, their order, make easier drawing data up as well and there are inducing to reflection of respondents over put problems taken in examinations.

In developing the questionnaire, you should consider:

- elements of which should be composed,
- form and content,
- appearance.

The questionnaire form should include:

- information about the institution conducting the research,
- concise information about the purpose of that task questionnaire,
- additional explanations , which character depends on the type of the questionnaire form.
- questions which refer at targets, for which the questionnaire form was constructed,
- instructions which concern it, how to respond to individual questions.

The form and contents of particular elements should take into account character of the questionnaire form and properties of potential respondents.

As for the construction of the questionnaire, it is necessary to follow these rules:

- questions must be clear, formulated based on the knowledge about the problem which they concern,
- questions should be formulated this way so that the respondent is able to give the credible answer,
- questions should be put so that they enable to obtain objective, comparable and verifiable data,
- questions shouldn't be formulated in this way to suggest an answer,
- should be kept proper sequence of questions posed, since they affect the quality of survey because they influence the quality of the questionnaire form,
- questions can have character closed off (supplied from above with predicted replies), half open (leaving the certain freedom to the respondent as for the reply), open (the respondent has complete freedom to answer).
- in case of closed or half open questions with the proposal of alternative replies it is necessary to use enough clear and rough choices to let the statement for possibly explicit dividing contents in the distinct way.

Because of the way in which it can be distributed questionnaires, are could talk about:

- environmental questionnaire forms, that is distributed directly by the interviewer in a particular environment
- press questionnaire forms, placed on pages of the newspaper or magazines,

- postal questionnaire forms, that the interviewer sends by post to the address of individual persons (institutions) selected for study

Questionnaire forms also are divided into:

- explicit, that is personal questionnaire forms or surveys that may indicate a clear evidence of respondent's person because of questions included in them,
- anonymous, that is questionnaire forms which aren't being signed, but also contain none of such questions which could reveal a person of the respondent in the moment, them where answered.

It is unacceptable to provide respondents with anonymity questionnaire form at the moment, it contains questions that can reveal who is the respondent (Sztumski, 1999, p. 142-151).

It is possible to point at the following advantages of applying the survey in examinations (http://mfiles.pl/pl/index.php/Badanie_sondażowe):

- possibly of fast examining the large community,
- saving time and resources,
- the role of the investigator is limited to the development of questionnaire form and choice of persons which he is going to examine,
- questionnaire form is an impersonal and anonymous, which allows for a more honest response test,
- reduction of the mistakes resulting from the influence of characteristics of the pollster or techniques adopted by him,
- the answers can be quickly assembled and analyzed.

However to the defects survey as a tool to measure should include (<http://pl.wikipedia.org/wiki/Ankieta>):

- in face-to-face conversations it is possible to take individual differences of respondents into account, in the questionnaire survey it is impossible, it would be hard to adapt the questionnaire to each of unidentified respondents.
- in each group are respondents who for different reasons aren't able well to fill in a questionnaire, many persons also have problems with written formulating its thoughts
- in every questionnaire form, there are questions which can trigger different associations at individual persons, what causes discrepancies in interpreting the reply,
- poll does not allow listing what the respondent says, and gestures, can't pick up signs of feelings of the respondents, only focuses on collecting quantitative data,
- low percentage of the reply, questionnaire forms can only fragmentary be filled up.

An external appearance of the questionnaire form is also significant. Its size should be such as to not discourage the respondent to comply with it. It must also be clear and transparent. Each task group, similarly to questions, should be clearly marked with letters or numbers, maintain adequate spaces between the lines, in order to give the opportunity for wider comment, especially when the questions open. When the questionnaire form has a lot of pages it is good to include in it one of the not-printed page, which may be helpful to the respondent to write answers to questions.

The questionnaire surveys are considered the most typical especially for sociology. They require the great research experience and a good methodological training.

4. CONCLUSION

Self-assessment and improvement activities in public organizations would be extremely difficult to achieve without obtaining credible pieces of information about different functions to be realized by these organizations. The CAF method encourages public sector

organizations to collect and use the information, although such a piece of information is not available yet while making the first self - assessment. Self-evaluation can make teachers and students in a questionnaire.

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DEMOCRATIZATION OF KNOWLEDGE AND KNOWLEDGE MANAGEMENT AS CHALLENGES OF CONTEMPORARY HUMAN RESOURCE MANAGEMENT

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Summary: From the standpoint of development of contemporary organizations that are experiencing the transitions similar to those observed in contemporary societies and operating on the verge of chaos, under conditions of variability, the importance of the elements of management, which are characterized by highest flexibility and potential, is increasingly emphasized. Knowledge, as a central value and fundamental resource in the enterprise is becoming the main factor of competitiveness (Haber, 2008, p 82). However, this resource is not generated by the organization alone. The carriers of knowledge are in particular the employees. Knowledge, as an individual resource, is distributed through a network of formal and informal contacts. In this context, organization is viewed not as a system (more or less hermetic) but as a network, an open structure, which is governed by the network logic. Through processes of exchange, individual knowledge contributes to creation of new knowledge and social knowledge: collective and organizational one (Kostera, 2003, p 79). The brief presentation of these mechanisms seems to be extraordinarily attractive from the standpoint of organization. However, it is determined by the philosophy of action, which accepts and even promotes democratization of knowledge as natural process that occurs in networks. This generates different challenges for those who manage the organizations, managers, and HR divisions. The above problems are the basis for the investigations presented in this paper.

Keywords: knowledge, sharing knowledge, HR, networking

1. KNOWLEDGE AND ITS IMPORTANCE FOR DEVELOPMENT OF ORGANIZATIONS

The literature, which relates to knowledge management, abounds in the concepts of data, information and knowledge (Probst, Raub, Romhardt, 2004, p 26). The most synonymous of these are data and information. The data is a set of facts concerning particular events. Synthesis, mathematical computation, interpretations and adding importance transform them into the category of information. This process, however, occurs in a variety of contexts, which evaluate information (Słocińska, 2010 b).

Knowledge is a concept, which is broader and deeper than data and information (Lin, 2008). It represents the outcome of experiences and internalization of information within the cognitive and emotional domain of human life (Davenport, Prusak, 2000, p 2-5).

There is also the fourth level in the analysis of the knowledge context present in contemporary literature: wisdom. Wisdom is defined as the way the knowledge is owned and utilized (Fazlagić, 2004), hence knowledge about knowledge, termed meta-knowledge (Słocińska, 2010 a).

From the standpoint of management of organizations, the use of the data and processing of the data in order to obtain information that can be than localized, stored and exchanged seems to be the simplest. At this level, it is possible to employ the classical functions of administration

by H. Fayol (Kostera 1998, p 13) that can be supported by IT tools (Davies, Stewart, Weeks, 1998).

When analysing the process of creative thinking at the individual level, creativity is interpreted as the ability to create new and unconventional ideas. Similar view can be used to analyse the process of creative thinking at the organizational level. If one assumes that sharing knowledge is always a *people-to-people process* (Liyanage, Elhag, Ballal 2009, p 122), the extended network of employee contacts, understood as a triumvirate of human, intellectual and social capital (Hayami, 2009; Zhao 2008; Stewart 1999, pXX; Sztumski, 2009, p 11-12), is conducive to increased frequency of interactions and flows of individual knowledge, increasing the probability of creation of the new knowledge. The value added in the processes of exchange of knowledge, regardless of the intentions of the people stimulating their flow, consists in the fact that they cause transformation and development of each of the subjects of the processes of exchange (employees) and consequently the evolution of the whole organization (Miś, 2005; Yang, Fang, Lin, 2010, p 232). This occurs because people do not acquire knowledge passively but they interpret, experience and adapt it to their own situation and outlook on life (Nonaka, Takeuchi 2000, p 33). Furthermore, it is essential that the development of employees and the related development of organization have also the potential for motivation and creating satisfaction among employees (Miś, 2005).

Therefore, the networking understood as the level of interpersonal interactions, which are not confined by the framework of organizational system, is a natural and demanded phenomenon (Perechuda, 2005). Surprisingly, this suggests that ‘mechanical’ prevention of the leakage of knowledge from the organization, through extended monitoring and controlling activities i.e. limitation of the spread of network logic, restricts creativity and development of organization, its members and even shareholders (Bevan, Cowling, Isles, Horner, Turner, 2005).

The processes of exchange of knowledge are the basis for the concept of knowledge management. However, from organizational a managerial standpoint, the exchange of knowledge should be a process, which is stimulated and organized so that it is able to fully utilize the potential that results from the flow of knowledge.

The exchange of knowledge between the employees might be considered in two contexts. The first one concerns localization, reproduction (Fekete Farkas, 2011) and re-codification of knowledge which is possessed by the employees in a manner that allows other members of the organization to use it again. The importance of the use of electronic tools for the process of knowledge management and the factor, which supports interactions between the employees and creation of new social networks should also be, emphasized (Patrick, Dotsika 2007). This also concerns transforming tacit knowledge into the explicit knowledge (which is often of formal character) (Kowalczyk, Nogalski, 2007, p 22; Fic, 2008, p 23). The methods of transforming tacit into explicit knowledge depend on the strategy of knowledge management adopted by organizations. This concerns the strategies of personalization and codification (Zbiegień–Maciąg, 2006, p 46) which reflect some philosophies of perceiving the processes of knowledge exchange by the managers in organizations.

The second aspect of this analysis focuses on the process of exchange of knowledge itself, i.e. seeking answers to the questions of:

- How the employees exchange knowledge?
- What stimulates the exchange of knowledge?
- What are the motivations behind the behaviours connected with flow of knowledge?
- What are the attitudes adopted by the employees with respect to the processes of exchange of knowledge?
- How to organize environment of work (in physical and social aspects) so that the frequency of exchange of knowledge is higher?

- What is the role of the organizational culture for the flow of knowledge?

Both dimensions of the exchange of knowledge are important. They coexist and determine each other at the same time. They allow for creation of the language, which helps express what is difficult to express. This means the tacit knowledge, which means an accumulated experience, practical knowledge that is expressed in action (Kostera, 2003, p 116). They also help localize communication nodes where different arteries of flow of knowledge and information are interconnected.

These nodes might include the physical spaces or certain people, who are termed librarians (Słocińska, 2011, p 295) i.e. the individuals who do not only have particular knowledge, but they also know who might know and what type of knowledge is necessary to solve a particular problem or to perform a task.

Another problem which occurs in the analysis of the processes of exchange of knowledge is full takeover of the knowledge and ‘feeling it’ by a new person. At this stage, the organization should support the experimentation as a method of implementation of newly acquired knowledge by the employees (Swan, Langford, Watson, Varey 2000, p 99-100). The integral element of the phase of creation and testing new knowledge is tolerance to mistakes, which is a precondition for the process of learning. This is one of the most effective method of learning, i.e. through experiencing, as opposed to the method of learning from others’ experiences (Czarniawska 2010, p 144), which unfortunately does not allow for ‘feeling the knowledge’ and its full internalization.

From the standpoint of management, the concept of T.H. Davenport and L. Prusak (2000, p 30) seems to be attractive: the knowledge is supposed to have its ‘sellers’ and ‘purchasers’ and the agents in transactions of exchange and acquisition of knowledge. In opinions of these authors, people share knowledge based on the following principles: reciprocity, reputation, altruism and trust (Davenport, Prusak, 2000, p 30-38). This approach also satisfies the needs for determination of the importance of knowledge and its business value. However, it should be considered whether terming the process of exchange of knowledge a sale is not a manifestation of financialization (Żakowski, 2012, p 5), i.e. the process of intensifying exchange of relationships into transactions and treating an employee as in the model typical of classical economics, Homo Oeconomicus (Kostera, 1998, p 8), the economical man who calculates the benefits.

2. NETWORKS AS A FORM OF ORGANIZATION

Nowadays, in times of individualism and popularization of network logic (Czarniawska, 2011, p 11) previous perception of an organization as a specifically physical construct and managing it according to an engineering metaphor of organization as an efficient machine, seems to be inadequate. It is possible today that an organization operates without any physical attributes (Bih-Shiaw Jaw, Ch. Yu Ping Wang, Yen-Hao Chen, 2006), based on coordination of isolated activities and processes executed by specialized entities. With this respect, it is increasingly legitimate to redefine the concept of organization. An interesting definition proposed by B. Czarniawska (2011, p 15), which says that an organization means a network (rather than a system) of collective activities, which are taken in order to have effect on the world. This definition reveals the actual level of openness of organization (Struzyna, 2007) and interrelation between a variety of networks it exists within.

A characteristic feature of the networks is relationships (Średnicka 2011, p 98), cooperation and constant flow of knowledge and information between the nodes in the network. Authority in the networks is not defined through hierarchy but through the knowledge and ability of its distribution.

Networks operate based on the principle of openness, which proves well as long as the units which operate within the network use the same manner of communication and execute the exchange of information and knowledge. The networking structure is dynamic: the relationships in the network might adopt forms from totally regular to entirely unplanned or even random. In fact, the networks oscillate somewhere between these extreme forms of relationships (Watts, Strogatz 1998).

Non-linearity of networks undermines the principles of functioning of the ordered and formalized organization in a systematic approach, since contacts in the networks are based on the relationships and the principle of trust.

The above arguments might explain insignificant interest in the problems of networking in sciences of organization and management (Smith 1989). Perceiving an organization as a complex and multidimensional network necessitates new and non-standard competencies and strategies for action. Social competencies of the employees, their ability to cooperate, share knowledge and independently seek solutions for the problems and innovativeness are of essential importance.

3. ROLE OF HUMAN RESOURCES IN DEMOCRATIZATION OF KNOWLEDGE

Networks also assume democratization of knowledge, i.e. giving it to ‘the hands of people’. The process of democratization of knowledge is very hard to implement in organizations for several reasons. Firstly, knowledge is sometimes treated as a resource used for gaining competitive advantage and jealously protected. However, it is often neglected that the phenomenon of knowledge assumes that the more we share the knowledge, exchange or use it, the more it grows. Sharing knowledge with others might cause that this person will internalize it in a completely different and unpredictable manner and will create the new perspective for the old problem.

Another problem that results from democratization of the knowledge is viewing it as a determiner for concrete hierarchical positions and posts. Sharing this knowledge with other employees in such cases equals giving up the authority these positions had.

Adoption of an approach, which assumes that an organization is defined as a network, results also in a specific perception of the role of staff.

Most of enterprises believe that there is knowledge trapped within the organization that could drive it to new heights. The problem is where to start? F. Soliman and K. Spooner (2000) point on human resources management. What is widely accepted is that HRM requires a variety of skills in working with tacit and explicit knowledge, and transferring the former one into letter one. That brings a new concept of human resources knowledge consisting of (Soliman, Spooner 2000):

- reviewing the drivers and strategies for human resources knowledge management efforts;
- gaining the commitment and understanding from human resources executives;
- identifying priorities within the human resources department;
- implementing knowledge management support system within the human resources department;
- and managing the expectation of employees.

The crucial role of HRM is also caused by the close linkages knowledge to culture, people behaviour and physical business environment.

Linking knowledge to culture include (Davenport, Prusak 2000, p xiii):

- incentive structures that reward people in part on the basis of their knowledge behaviours;

- senior executive that set an example of knowledge behaviours;
- evaluating decisions and decision-making on the basis of the knowledge use to arrive at them;
- celebrating and rewarding people for sharing knowledge and using “stolen” or borrowed knowledge;
- hiring new workers partly on the basis of their potential for knowledge behaviours;
- giving workers and managers some “slack” for knowledge creation, sharing, use, and general reflection;
- educating all employees on the attributes of knowledge-based business and knowledge-based management.

Linking knowledge to behaviour put interest into realizing the vital connection between knowledge-oriented behaviour and overall employee performance. Knowledge projects should regard for how and why user might be motivated to draw on a piece of knowledge in their work routines. That is because there is still little known about the favourable circumstances that stimulate people in organization to create, share, or apply knowledge. One of the pivotal factors in knowledge creation and transfer is physical space in the workplace. Davenport and Prusak (2000, p xiii) claim that yet we still don’t know whether space and office design are truly inhibiting knowledge management, but academics, architects, corporate space planners, and executives should all devote more consideration and creative thought to the issue.

There are at least seven important roles of HR departments in supporting knowledge management activities (Soliman, Spooner 2000):

- social gatherings of staff,
- the office layout,
- trust between employees,
- differences in culture and language,
- timeliness,
- learning and mistakes handling, and
- senior management involvement and support.

It is important to recognize that HR department is better positioned than other functional units to create link between strategy and employee knowledge. The organization must articulate its strategies and then identify the knowledge required in executing it. The required knowledge ought to be compared to the actual employee knowledge. The comparison leads to the identification of both strategic and knowledge gaps.

4. CONCLUSIONS

The perception of the resources of knowledge accumulated within the organization, stored and processed every day by their owners (employees) implies changes in the concept of knowledge management. The strength of the organization is build day by day and manifests in basic employee and organizational knowledge-based activities and it provides unlimited opportunities for its configuration and renewal. Focus on the exchange of knowledge, on its flow based on the network of employees’ contacts, opens up the opportunities of real financial savings connected with e.g.:

- realization of employees’ needs in terms of trainings and development
- improving the effectiveness and cooperation among the employees based on understanding of interests and goals,
- building motivation and loyalty based on commitment rather than on financial incentives
- preventing increasing fluctuation.

In summary of the investigations of the utilization of the idea of democratization of knowledge through utilization of the network, one should also take into consideration the maturity of organization. If the activities within the network are an expression of the full readiness of the organization for changes (and networks undoubtedly provide such opportunities), the question remains whether this process should actually be accelerated. An organization, which is ready for transformations, enters naturally into the networks of cooperation and collaboration and encourages their own employees to similar activities. It opens to new knowledge and recognizes the previous one as outdated knowledge, which is likely to lead to making irrational decisions and threaten the existence of the enterprise (Mroczko 2007, p. 125). The organizations, which care for invariability and maintaining their status-quo, shut themselves, being convinced of the elitist character and importance of their knowledge. The contradictions occur when the organizations stimulate behaviours and attitudes, which are conducive to generating knowledge, but they do not know how or are afraid of using this knowledge. Similar duality of attitudes takes place when the organization protects their knowledge resources and does not open to the flow from the outside or inside of the organization and requires finding creative and innovative solutions from their employees. Undoubtedly, the problems of functioning of network-organizations and exchange of knowledge are very interesting and necessitate further research and investigations.

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LOGISTICS ORGANIZATION IN THE COMPANY LIFECYCLE

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Summary: The aim of this study is to map the evolution of logistics organization in companies along their lifecycle. According to our hypothesis, different configurations of logistics organization appear at the different periods of companies' life. For the purpose of this study we used Larry E. Greiner's organizational growth model, which was first published in 1972, and actualized in 1998 by the author and the model for logistics organization of D. J. Bowersox et al., published in 2002. We drew a parallel between the two models using the similarities of the corresponding stages of development. We tested the parallelism on a sample of 97 Hungarian companies from the industrial and commercial sector. We assigned each sample company to a stage of the Greiner model using a fuzzy classification method, and then we analyzed the characteristics of logistics organizations for each growth stage. The results of the empirical analysis supported the parallelism between the two models. It can be used as a basis for further studies in this topic and also in practice for management consulting in the fields of organizational development and logistics.

Keywords: company lifecycle, logistics, organization

1. INTRODUCTION

Logistics organization is an important issue of international logistics literature. All authors agree in that logistics organization should suit to the internal and external environment of the company. Internally it means harmony with the company organizational structure and strategy, externally it means exploiting possibilities and meeting market expectations. Logistics operations should be effective and efficient in the same time. This means that growing companies need different logistics organizations as they go through their lifecycle.

Organizational growth models give detailed descriptions on company characteristics in each stage of their lifecycle, but do not give details on the different company functions – like logistics. In our opinion each stage of development require different contribution from the logistics function and different logistics organizational structure as well.

Defining ideal logistics organization to each stage may be useful for developing companies to form their logistics function.

2. LITERATURE REVIEW

2.1. ORGANIZATIONAL GROWTH

Researchers of organizational development agree that growth of companies can be separated to well-defined stages (Greiner 1972, Churchill-Lewis 1983, Quinn-Cameron 1983, Miller-Friesen 1984, Baird-Meshoulam 1988, Kazanjian 1988, Timmons 1990, Milliman et al. 1991, Adizes 1992, Hurst 1995). Each stage can be characterized by behaviour in the market, organization and management problems. Researchers also agree that it is advantageous for a company if the manager is aware of the logic of growth models and the position of his/her company in the models. According to Göbölös and Gömöri (2004) this makes management more conscious and helps to prepare for future changes and probable management problems.

For the purpose of this study we used Larry E. Greiner's organizational growth model, which was first published in 1972, and actualized in 1998 by the author. It is one of the most often cited company growth models, and it is widely used in practice by management consultant companies. The main strengths of the model are that it is universal regarding sector and size, it is detailed enough for our purposes, and its stages are relatively well-defined and characteristic.

Table 1 lists the evolutionary and revolutionary periods defined by Greiner. Although Greiner interpreted one phase as a sequence of an evolutionary phase and a crisis, in our point of view crises have so unique characteristics that their interpretation as a separate phase is reasonable. In the following part of the article we use the abbreviations of the phases when referring to a phase.

Table 1: Growth phases defined by Greiner (1972 and 1998)

<i>Abbreviation</i>	<i>Name of phase</i>	<i>Abbreviation</i>	<i>Name of phase</i>
1P	Phase of Creativity	3C	Crisis of Control
1C	Crisis of Leadership	4P	Phase of Coordination
2P	Phase of Direction	4C	Crisis of Red Tape
2C	Crisis of Autonomy	5P	Phase of Collaboration
3P	Phase of Delegation	5C	Crisis of ? (Exhaustion)

Source: Greiner (1972, 1998)

We have no possibility to give details of each phase in this article due to limitations on length but we present the most important features of them from the point of view of this study in Table 2.

2.2. LOGISTICS ORGANIZATION

We reviewed four models for typical forms of logistics organization: Lambert et al. (1998), Bowersox et al. (2002), Frazelle (2002) and Rushton et al. (2006). We found Bowersox's approach is the most suitable as it is an evolutionary approach in contrast with Frazelle's, and it is more detailed than the other two evolutionary models. Dividing the functional integration into three steps makes it more suitable for finding correspondence between the growth phases and the logistics organization structures as integration can go on gradually. Therefore we use the Bowersox model as a basis and complete it with the ideas of the other three authors.

Stage 0. Fragmented functional structures

These structures are typical for traditional or young organizations. Logistics activities are dispersed to Marketing, Manufacturing and Finance functions. (Bowersox et al. 2002). Lines of communication are unclear so it is often impossible to optimize the different logistics sub-functions for effectiveness and efficiency (Rushton et al. 2006).

Stage 1. Functional aggregation 1

The first step towards integration is grouping the logistical activities within the original function. Typical aggregations in this phase are for example:

- marketing: aggregation of customer service activities
- manufacturing: aggregation of materials management activities. (Bowersox et al. 2002)

Stage 2. Functional aggregation 2

Logistics as a separated function appears in the organizational chart with own authority and responsibility. The logistics department usually involves physical distribution and material

management at this stage. Weaknesses are limited communication and coordination between functions result in the lack of efficiency (Bowersox et al. 2002), and growing overall logistics costs and service level problems due to trade-offs. (Frazelle 2002)

Stage 3. Functional aggregation 3

In this phase of aggregation the aim is to integrate all possible logistical activities within the boundaries of a single functional unit and exploit synergies. The logistics function includes planning and operations as well, so logistics get into strategic level (Bowersox et al. 2002).

Advantage of the integration is that it can handle trade-offs, and overall logistics cost, service level and efficiency can be optimized (Frazelle 2002). Remaining weaknesses are:

- overall company performance is still not optimal, considering there is no full cooperation between the functions. (Lambert et al. 1998)
- it focuses on internal operations, the customers' expectations get less emphasis than needed. (Rushton et al. 2006)

Stage 4. Process integration

Process-oriented organizations are able to reach a higher level of service and productivity than functional organizations. Process management appears in process and matrix organization. (Frazelle 2002, Lambert et al. 1998, Rushton et al. 2006)

Process-oriented organizations also have to face problems and dilemmas:

- How can an organization be structured so that it can manage a process as complex as global logistics without becoming overly bureaucratic? (Bowersox et al. 2002)
- It is impossible to meet perfectly the demands of service quality and efficient operation at the same time. (Frazelle 2002)
- Coordination gets complicated due to functional egoism. (Lambert et al. 1998, Rushton et al. 2006)

Stage 5. Virtuality and organizational transparency

These are the organizations of the future, but some companies (for example Dell) already apply this structure. Logistics operations are dispersed to different functions or processes under the coordination of a CLO. Advanced IT systems provide coordination through common database and information sharing, making optimization possible not only in company level but across companies in the supply chain. (Frazelle 2002, Bowersox et al. 2002)

2.3. SYNTHESIS OF THE TWO MODELS

The two models show several similarities. Both of them are evolutionary models, and they are similarly detailed. Both of them give a description to each stage of development using the same types of attributes (size, organizational questions, tasks assigned to operational or strategic level, delegation, use of planning and controlling methods, information flow). The correspondence of the two models is shown in Table 2.

Table 2: Correspondence between Phases of growth (Greiner) and logistics organization (Bowersox)

Organization (Bowersox et al.)	Characteristics of logistics organization	Characteristics of growth phase	Phase of growth (Greiner)
Stage 0. Fragmented functional structures	<ul style="list-style-type: none"> No independent logistics organization Logistics activities dispersed to other functions Duplication of tasks Lack of functional coordination 	<ul style="list-style-type: none"> No independent functional units Functions integrated to core activity Functional objectives not determined 	Phase 1: Creativity
Stage 1. Functional aggregation 1	<ul style="list-style-type: none"> Grouping of some logistics tasks within the original function No integrated inventory management 	<ul style="list-style-type: none"> Formulating functional units Functional and company objectives not harmonized 	Crisis 1: Leadership
Stage 2. Functional aggregation 2	<ul style="list-style-type: none"> Independent logistics unit Involves physical distribution and material management Limited communication between functions No company-level optimization 	<ul style="list-style-type: none"> Functional structure Basics of controlling and planning Middle line managers 	Phase 2: Direction
		<ul style="list-style-type: none"> Executive is the only decision-maker Communication between functions only through the executive – decrease in performance due to overload 	Crisis 2. Autonomy
Stage 3. Functional aggregation 3	<ul style="list-style-type: none"> Most logistics activities done in one unit Logistics on strategic level Company-level optimization in logistics Logistics information system Limited cooperation with other functions 	<ul style="list-style-type: none"> Delegation of decision-making to functional managers Faster and more efficient operations and information flow 	Phase 3: Delegation
		<ul style="list-style-type: none"> Lack of control over functional units Inconsistence between company and functional strategy 	Crisis 3: Control
Stage 4. Process integration	<ul style="list-style-type: none"> Activities driven by the key performance objectives of the core process Intensive information flow between functions High-level service and productivity Conflicts between process and functional objectives Risk of being overly bureaucratic Coordination problems 	<ul style="list-style-type: none"> Transparent structure and controlling system Fulfillment of company goals precisely tracked Effective and efficient operation 	Phase 4: Coordination
		<ul style="list-style-type: none"> Growing bureaucracy Conflicts between management and operations Slowing decision-making, decreasing efficiency 	Crisis 4: Red tape
Stage 5. Virtuality and organizational transparency	<ul style="list-style-type: none"> Desintegration of logistics processes Developed IT support Virtual integration and physical dispersion Integration with other functions and across the supply chain 	<ul style="list-style-type: none"> Efficient cooperation between organizational units 	Phase 5: Collaboration

Source: own table based on Bowersox et al (2002) and Greiner (1972)

3. MATERIAL AND METHOD

3.1. COMPANY SAMPLE

We have tested the parallelism of the two models on a sample of Hungarian companies. The observed companies were chosen by field of activity, where logistics is a relevant but not core activity and therefore the presence of the logistics organization is possible. Regarding to company size the minimum number on FTEs was 10. The observed companies are active in manufacturing or commerce.

C-level managers of the sample companies filled in a questionnaire in frames of a personal interview. Questionnaires were prepared between February and May 2009, the number of interviews made was 120. Only 97 of them were analysed due to insufficient answers on critical questions.

3.2. RESEARCH METHODOLOGY

The first step of data processing was the assignment of sample companies to Greiner's growth phases (company classification). We used a fuzzy classification method for this purpose (Miskolczi-Gábrriel 2008, 2012). The classification was based on a group of questions dedicated to the attributes a company should have in each phase of growth. The interviewee had to mark on a four-grade scale, how characteristic are these attributes to their companies. The answers were then converted to fuzzy membership functions by using correspondence matrices in which we defined the relationship between each answer and the membership degree in each phase. The final step was the defuzzification of the membership function with MOM method to get a crisp (the one most typical) result for growth phase.

The second step was the analysis of logistics characteristics of the company based on a group of questions dedicated to logistics. The aim of this step was to check whether the companies classified into a given growth phase show the characteristics of the corresponding stage of logistics organization given in Table 2. We checked the following characteristics:

- existence and type of logistics organization,
- number of employees doing logistics-related tasks,
- logistics related activities done by the companies (number and type),
- location of the tasks above (operational and strategic) in the organizational structure.

4. RESULTS

After the classification of companies we got the result shown in Table 3:

Table 3: Result of classification

<i>Growth phase</i>	<i>No. of companies</i>	<i>Growth phase</i>	<i>No. of companies</i>
1P	24	4P	3
1C	21	4C	2
2P	18	5P	6
2C	13	5C	3
3P	1	not classified	5
3C	1	Total	97

Source: own research

For the existence and type of logistics organization we got the results shown in Table 4.

Table 4: Logistics organization in the growth phases

<i>Phase</i>	<i>No. of companies</i>	<i>Logistics organization</i>		
		<i>none</i>	<i>simple</i>	<i>integrated</i>
1P	24	100%	0%	0%
1C	21	100%	0%	0%
2P	18	78%	22%	0%
2C	13	77%	15%	8%
3P	1	100%	0%	0%
3C	1	0%	100%	0%
4P	3	0%	33%	67%
4C	2	0%	100%	0%
5P	6	0%	17%	83%
5C	3	0%	0%	100%

Source: own research

There were no companies in phases 1P and 1C where the name of the unit carrying out logistics activities contained the word “logistics”. The typical organizational units doing logistics activities were “production”, “sales” and “maintenance/engineering” depending on the core activity of the company. The average number of logistics-related employees was 2.1 in 1P and 4.9 in 1C.

In phase 1P all of the planning and controlling activities were done by the company manager, employees performed operational tasks. The most often mentioned tasks were the following:

- Operative purchasing
- Providing information on suppliers to production
- Material handling
- Preparation of material for production
- Providing information on production to warehouse
- Quality check
- Packaging, finishing
- Providing information on stocks to sales
- Commission
- Distribution
- Return goods handling
- Waste handling

The employees were not grouped by activity in 1P. This organizational structure became a little more sophisticated in 1C where subgroups appeared within the three functions mentioned above such as “purchasing”, “warehouse”, “distribution” and “service department”.

Logistics organization appears first in phases 2P-2C. This unit involves at least the activities connected to physical distribution, and the word “logistics” appears in its name. However, logistics is not considered at strategic level, and activities such as purchasing, inventory management or packaging still belong to the production unit. The average number of employees performing logistics tasks is 8.1 in 2P and 13.1 in 2C. The most often mentioned tasks were:

- Operative purchasing
- Providing information on suppliers to production
- Material handling
- Packaging, finishing
- Providing information on production to warehouse
- Inventory management
- Providing information on stocks to sales
- Commission
- Distribution
- Return goods handling
- Waste handling

For phases 3P and 3C we do not have statistically relevant results due to the small number of companies, but both of the two companies of these phases have logistics unit. The number of companies in the rest of the phases is still small to draw significant conclusions, but we have found that 15 out of the 16 companies have organizational unit dedicated to logistics, and in phases 5P-5C all companies have process organization (stage 4 in the Bowersox model).

For logistics activities we found that the first activities carried out by the logistics unit belong to physical distribution, while planning and control of logistics processes stay in the hands of top management or controlling even in higher levels of growth. Only 2 companies of the phases 5P and 5C delegated these tasks to the logistics organization.

Overall, the results of the survey confirmed the parallelism of the two models in case of the stages where the number of companies were sufficient for statistical analysis. In the case of the other stages characteristics were also in accordance with the Bowersox model.

5. CONCLUSION

One of the most important result of this study that we determined the stage of development and the typical organizational structure of company logistics along the Greiner model. As a basis for possible structures of logistics organization we took the configurations given by Bowersox et al. (2002). In the course of the survey, we found a parallelism between the growth phases of the Greiner model and the stages of development of logistics organization defined by Bowersox. The survey data validated the correspondence between the two models. This parallelism can be used in further scientific or practical analysis of company logistics: if a company is classified in the Greiner model, a typical structure of logistics organization can be defined for it. This helps managers in situations of taking up new activities, rapid growth of employee number, organizational changes and reorganization of processes, and it can also be a good tool for management consultants.

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THE CHANGING MISSION OF HUMAN RESOURCES MANAGEMENT

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SUMMARY

The paper attempts to present a case for an approach to Human Resources Management (HRM) which is based on aligning HRM policies, programs and practices to the strategy of the organization served, its culture, its external and internal environment and its technology of production and on aligning the different elements of HRM programs and practices to each other, using the “best fit” principle. Based on evidence derived from the case histories of major companies in the recent past, the paper will demonstrate that only this approach to HRM will add value to the organization served and will provide it with a competitive edge which is something the traditional “best practices” approach to HRM is not capable of doing. Lastly, a case is presented for the need to manage with metrics.

Keywords: Best practice, best fit, alignment, consistency, continuity, metrics

1. HRM AND ORGANIZATIONAL SUCCESS (OR FAILURE)

Human resources are key factors to organizational success or failure. There is a fast-growing and high-quality body of empirical research demonstrating that HRM policies have an impact on organizational performance (Baron and Kreps, 1999, p. 4). The evidence is strong that what are called High Performance HR Practices, such as employee recruitment and selection procedures, incentive compensation, performance management systems, and extensive employee involvement and training can improve many outcome measures, such as productivity, product quality, and innovative work practices (Eichinger et al. 2004, p. 48).

Based on the available empirical research and evidence, we can be convinced that organizational success with poor HRM policies is impossible, and that the effects of improved HR policies on organizational success are potentially enormous (Baron and Kreps, 1999, p. 4).

The issue, which needs to be addressed, however, concerns the specific HRM policies, programs and practices, which will bring about success or failure. What needs to explore is whether there exists a body of leading edge HRM policies and practices, which will serve any organization well at all times and which will be effective with any organization’s culture and business strategy; or whether HRM policies and practices should be tailored to fit in the broader context of what the organization is trying to do (Baron and Kreps, 1999, p. 16).

2. THE TRADITIONAL APPROACH TO HUMAN RESOURCES MANAGEMENT (HRM)

Traditionally, HRM has been looked at as a provider of fairly mundane services: staffing the organization, deploying and redeploying employees, making sure those employees would be properly paid, training and developing those employees, managing industrial relations, etc. The different nature of those services gave rise to the organization of Human Resources work along process lines. Typically, HRM work would be organized by process and HRM units would provide the following services to the organizations they served:

- Workforce Management (recruitment and selection, deployment and redeployment, retention of best talent, downsizing and restructuring)
- Compensation and Benefits
- Performance Evaluation and Performance Management
- Career Management, Training and Development
- Safety and Wellbeing
- Employee Relations and Industrial Relations
- HR Research and Controlling

This process approach to organizing HR work remains unchanged until today. However, some changes have been occurred, namely in the understanding of how those processes should be designed and executed. The traditional thinking was that if the major HR processes were of a leading edge nature or at least “state of the art”, then HRM would do its job and serve the organization well. Accordingly, one would attempt to design those processes based on what was considered “best of breed”, but without much regard for the organization’s culture, its business model and strategy and without much consideration for the internal and external environment in which the organization operated. The approach was to benchmark HRM policies and practices against the outside and to adopt what was considered “best practice” for the organization’s own use. That way, it was believed, the organization would have leading edge HRM policies and practices, which would best serve the interests of the organization.

3. WHY THE TRADITIONAL APPROACH TO HRM IS NO LONGER WORKING

This “best practice” approach described under 2. above may have had its merits in former times when the internal and external environment were fairly stable, economies not in constant turmoil, technological progress slow and culture change rare and in any case slow. In today’s world, however, where change is continuous and the need to adapt to changes in the environment is urgent, a stable set of HRM policies and practices will no longer serve the best interests of an organization. Nor will HRM policies and practices resulting from adopting “best of breed” practices of other companies contribute to the success of an organization.

The recent history of IBM is a good case in point. In the 60ies, 70ies and 80ies of the last century, IBM was widely admired for its HRM policies. Full employment without regard for the ups and downs of the company’s fortune in the market place, a lead policy of compensation and extremely generous benefits were corner stones of those policies. Together with the belief in “respect for the individual”, those policies were intended to be immutable and remain in place forever. As it turned out, those policies served the company well in times when it had a near monopoly in the market, but proved to be disastrous in the early nineties when the company’s fortunes changed and the need for large-scale restructuring arose. Rather than do the necessary and lay off employees no longer needed, cut down on oversized pay and benefit packages and, more generally, change the entrenched culture of entitlement, executive management clung to the old policies and risked bankruptcy. The rest is history: the board forced out old management, brought in a new CEO who then brought about the necessary changes in HRM (and other) policies.

IBM’s history reminds us of an important fact: HRM policies and practices must “fit” the firm’s strategy and its culture and must be attuned to the internal and external environment. In a world that is undergoing rapid change, this need to continually adjust HRM policies and practices is an important ingredient of success.

4. WHEN HRM POLICIES AND PRACTICES WILL “FIT”

4.1 ALIGNMENT

Above all, HRM policies and practices must fit in the broad context of how and where and under what circumstances a firm operates and what it is trying to accomplish. Michael Porter as cited by Baron and Kreps (1999) has identified five factors which are of importance in this context:

- The social, political, legal and political environment
- The workforce
- The organization’s culture
- The organization’s strategy
- The technology of production and organization of work

Numerous examples of how context will affect HRM policies and practices come to mind. Here is just one which illustrates how certain pay and benefit practices will make extremely good business sense in a specific situation and little or no sense under different circumstances: the early Microsoft had a practice of combining broad-based stock option plans with fairly modest cash compensation. In the years (roughly from 1985 to 2000) when the company’s stock price was “on a run”, i.e. was going up year after year, this was an excellent way of rewarding employees, retaining the best talent, aligning employee and shareholder interests and saving cash compensation costs at the same time. Later, when the stock moved sideways for many years, those same compensation and benefit practices no longer made good business sense and, had they been continued, would not have achieved their intended purpose. Consequently, Microsoft had to change its compensation practices and had to increase cash compensation for its employees in a significant way.

4.2 CONSISTENCY

Not only must HR policies and practices be aligned to the organization’s strategy, its culture, its environment, its workforce and its technology, HR policies and practices must also be internally complementary or at least consistent. Ideally, they must support each other, lend strength and meaning to each other and will reinforce themselves that way. As a minimum, however, HR policies and practices must not clash with each other.

According to Baron and Kreps (p. 39), there are three aspects of consistency:

- Most importantly, the different policies and practices making up an organization’s HRM system must be internally consistent, meaning they must be aligned to each other. They should emphasize (or deemphasize) the same themes and messages and must be based on the same basic view of man. If that view is that what makes employees tick is money and status, then this view must be reflected in the company’s recruitment policies, its compensation practices, in the way performance is recognized and rewarded, in the way employees are developed and promoted, etc. And if the view is that what really matters is the psychological bond which holds employees and the organization together, then the entire set of HR policies and practices must emphasize this “we are one family” theme. With Baron and Kreps, we refer to this kind of consistency as “single-employee” consistency, meaning that “the different pieces of HR policy that bear on a single employee should be consistent with one another” (Baron and Kreps, 1999, p. 39).

- Consistency also means that different employees should be treated the same way in similar situations. This is referred to as “among-employee” consistency (Baron & Kreps, 1999, p. 39).
- Lastly, there is a case to be made for a certain degree of consistency over time, i.e. continuity.

A few more thoughts on the three different aspects of consistency are in order and are presented below.

4.2.1 Single-employee Consistency

This is the most important aspect of consistency. Unless the various pieces of the HRM system really “fit”, HRM will not contribute to the success of the organization. A couple of examples will illustrate why this is so:

- An elaborate performance evaluation system will make little or no sense if it is not complemented by compensation practices, which emphasize performance, i.e. make sure that there is significant pay differentiation based on individual or team performance. Likewise, staffing decisions, i.e. decisions on who is allowed to stay, who will be promoted, who will be terminated, must be performance based. In addition, training and development must have a strong link to performance. If an organization does not promote people on merit, if it does not differentiate, pay based on merit, if it does not terminate those who do not perform, why evaluate performance in the first place? On the other hand, if all the proper links between the pieces of the system are in place, an organization can credibly live a performance-based culture and will derive significant benefits from that. In the absence of those links, any reference to performance as an important theme will remain a mere lip service.
- Organizations should also be consistent when deciding whether they will focus on individual or team performance. When it is individual performance, then this principle must not only be observed in assessing performance but also when making pay decisions and when deciding on promotions. They must also decide whether the emphasis is on egalitarianism or meritocracy, on centralization or decentralization, trust or distrust in relations between the firm and its employees, focus on outcomes (getting the job done) or process (following rules), etc. (Baron and Kreps, 1999, p. 42). Only to the extent that an organization sends consistent messages to its employees about these topics, employees will know what is expected of them (Baron and Kreps, 1999, p. 43).

4.2.2 Among-employee Consistency

This kind of consistency is highly desirable because it touches upon basic notions of fairness and equity. In its most rudimentary form, among-employee consistency means that employees working side by side should enjoy the same terms and conditions, meaning they should have the same or similar pay, be covered by the same benefits, enjoy equal job security and be subject to the same rules and regulations governing all aspects of employment. This principle of among-employee consistency is as important as it is difficult to achieve in practice. The reasons for this difficulty are many-fold:

- There has been a paradigm shift in how and on what legal basis people are employed. Full-time regular employment is no longer the norm but becoming the exception in many organizations. As a rule, full-time regulars are complemented by part-time employees, temporary employees, contract personnel, agency and vendor personnel, consultants and employees in subsidiaries, joint ventures and affiliates of some sort.

When and where this is the case, employment terms and conditions are likely to differ. After all, different employment models are often used precisely because they allow the use of different terms and conditions. Where this is the case, charges of unequal treatment and discrimination are likely to arise and teaming between employees belonging to different groups will take a toll.

- Among-employee consistency is also affected by the way global companies manage their business. Increasingly, they will manage their business as a portfolio of businesses and will divest selected business areas when needed just as they will invest in new business areas on an ongoing basis, resulting in increasing resource dynamics with significant population churn. Among other things, this means that when investments are made in new business areas, employees with different terms and conditions must be absorbed and integrated. This takes time and different terms and conditions are likely to persist for extended periods of time. Within the EU, the Acquired Rights Directive (Directive 2001/23/EC) even aims to ensure that in case of the “transfer of an undertaking” the terms and conditions of employment are maintained for the employees affected. This will virtually guarantee that among-employee consistency does not exist.

Almost needless to say, in the absence of among-employee consistency, creating a motivated workforce committed to the organization’s goals and values represents a significant challenge.

4.2.3 Continuity

Continuity in the sense of consistency over time is another important aspect of consistency. Employees should be subject to a stable set of HRM policies and practices because sudden and frequent changes create ambiguity and will leave employees confused and unable to understand what is expected of them. But it is obvious that consistency over time can conflict with the need to change HRM policies and practices in response to changes in the organization’s strategy, its culture, its environment, or its technology of production. The challenge any organization will have is to strike the right balance between the need for continuity and the need to make the necessary changes.

5. THE NEED FOR METRICS

In addition to the improved understanding we have today of the need to have HRM policies and practices aligned to the organization’s strategy and environment and to have consistency of those policies and practices, there is now a much better understanding of the need to have a meaningful set of metrics which must guide the work of HRM.

In the not so recent past, HRM programs and practices were not believed to be subject to quantitative analysis. Rather, the belief was management should engage in deep thinking about the kind of HRM programs and practices needed and should execute those believed to serve the interest of the organization best.

Today, it is increasingly understood that metrics can play a very useful role in analyzing the effectiveness of HRM programs and practices. Metrics are used to evaluate the effectiveness of the organization’s many HR policies and practices (Werner & Schuler & Jackson, page XVII). Metrics will track the progress HRM is making in delivering value to the organization and will answer the questions whether specific HRM programs will do what they were designed to do. A few simple examples will illustrate this point:

- It is often claimed that the grant of stock options will help retain key employees. It is also claimed that stock options will align the interests of managers who receive option

grants with the interests of shareholders. Based on this belief, many companies have implemented stock option programs. Simple metrics could be used to substantiate (or refute) those claims. One could simply compare the attrition rate (turnover rate) of employees with and without stock options and one will have a much better understanding of what stock options will do to retain a company's best talent. Likewise, comparing the financial performance and stock market performance of companies with and without stock option programs will allow us to make a judgment about the effectiveness of the claimed alignment of interests.

- Simple metrics could also be used to establish how effective different recruitment and selection methods are. Comparing the on-the-job success of employees recruited from different sources or the job success of employees selected by different recruiters will provide the answer.
- Metrics are also useful to track the efficiency of an organization's HRM programs and practices, using simple productivity measures. One could track the development of those measures over time and/or could use them to benchmark the organization's productivity against the outside.

More recently, the work on metrics has evolved further and resulted in the use of a so called Balanced Scorecard, a combination of hard and soft measures. This has been extended into the HR Scorecard to measure the accomplishment of all of the above (Eichinger et al., 2004).

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CONSOLIDATING HUMAN RESOURCE MANAGEMENT THROUGH CORPORATE SOCIAL RESPONSIBILITY PRACTICES IN CENTRAL AND SOUTHEASTERN EUROPE

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Summary: There is a broad consensus in nowadays management theory and practice that the human resources stand for the main success factor of a company in reinforcing its competitiveness in the international business environment. In line with this consideration, the purpose of our paper consists in emphasizing the role of corporate social responsibility (CSR) practices in the area of human resource management (HRM) for strengthening the competitiveness of companies in Central and Southeastern Europe. In this sense, our research focuses on top companies by turnover in Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia, for which we determined a composite index of CSR-HR in order to compare the corporate engagement in a set of employees-related issues. The main aspects that we took into account envisage the following: improvement of labour conditions and job satisfaction, work-private life balance, equal opportunities and promotion of diversity, personnel training and development, participation of employees in the decision-making process, fair payment and financial support for employees. The main findings reflect that the economic performance of the companies encourages the overall CSR measures targeting the employees in the companies from Central and Southeastern Europe countries. Detailed findings on the corresponding components of the CSR-HR index are also presented. The paper ends with strategic recommendations for increasing corporate competitiveness in Central and Southeastern Europe through CSR-HR continuum.

Keywords: Corporate social responsibility (CSR), Human resource management (HRM), Competitiveness, CSR-HR composite index, Employees-dedicated CSR measures

1. INTRODUCTION

Following the economic crisis, the societal pressure put on companies to increase their corporate social responsibility (CSR) is stronger than ever considering its positive impact for all the stakeholders. In order to better reflect and align to the changes in nowadays business environment, the European Commission has recently proposed a new definition of CSR – “the responsibility of enterprises for their impacts on society”(EC 2011, p. 6), broadly determining the economic, environmental and social influences of the business activities.

The global crisis has also changed the corporate priorities in addressing CSR issues, moving the spotlight from environmental issues to social issues. In the extensive category of the social issues that the companies may address, one key-element refers to consolidating the sustainability of their human resources management (HRM) – a term that could be defined as ‘the sum of corporate actions and measures for recruiting, selecting, managing, training, evaluating and motivating the personnel’. This is why the employees-related CSR policies are gaining more ground in the specialized literature and the empirical evidence.

In this sense, a bidirectional relationship could be established between corporate social responsibility (CSR) and human resource management (HRM): on one hand, the involvement of the employees is a critical factor for the success of the CSR campaigns and, on the other hand, the companies should specifically implement coherent and dedicated CSR policies for

their employees (a prerequisite for assuring the CSR engagement of the employees). The above relationship is approached in a different way at the international level: the efforts in the most developed countries are mainly directed to attracting the employees in supporting the CSR agenda of the companies in order to reaffirm the corporate legitimacy (e.g. Strandberg 2009, for a description of the situation in Canada), meanwhile in the rest of the countries the companies are striving for satisfying the needs of their employees by including CSR in their HR policies. The present research – conducted at the level of the Central and Southeastern Europe – emphasizes the role of CSR in developing a highly articulated HR policy, taking into account the decisive role that the employees play in strengthening the corporate competitiveness and the need of the business organizations to put a greater focus on their employees-dedicated CSR measures.

2. CSR AND HRM

The potential of CSR to increase corporate competitiveness and to bring benefits in terms of risk management, cost savings, access to capital, customer relationships, human resource management, and innovation capacity (EC 2011, p. 3) is now generally acknowledged (see, for example, Iamandi 2011, pp. 180-187, Iamandi 2010, pp. 290-294, Popa & Filip 1999, p. 257). More than that, some of the most significant changes in the management science emphasized in the specialized literature (Nicolescu 2001) could be easily associated with, or derived from, the concept of CSR and applied specifically to HRM field: innovation, flexibility, motivation and participative management.

The key advantages that CSR brings for the responsible companies in terms of HRM refer to attracting and keeping high quality and well-motivated employees, that could internalize and transmit further on the corporate values in their interactions with other stakeholders. For achieving this strategic objective, the employees-dedicated CSR measures reflect at least the following six areas: Improvement of labour conditions, including health, safety and security at work, and enhancement of job satisfaction; Work-life balance; Equal opportunities and promotion of diversity at the workplace; Training and personal development, including career planning; Informing and participation of employees in the decision-making process; Responsible and fair remuneration and/or financial support for the employees (e.g. pension systems, interest-free loans etc.) (Austrian Institute for SME Research 2007, p. 4).

The recognition of corporate involvement in specific CSR areas is often complemented with a quantitative approach required by third-party auditors. One of the most well-known methods for measuring and evaluating the corporate involvement is represented by the Global Reporting Initiative (GRI 2011) Sustainability Guidelines, presenting a set of complete indicators that companies could use in order to determine their level of compliance in the following CSR fields: Economic, Environmental and Social ('Labour Practices and Decent Work', 'Human Rights', 'Society' and 'Product Responsibility'). The employees-dedicated CSR measures fall under the categories of indicators 'Labour Practices and Decent Work' and 'Human Rights' (GRI 2011, p. 30, 33).

3. EMPIRICAL ANALYSIS OF THE CSR-HR CONTINUUM IN CENTRAL AND SOUTHEASTERN EUROPE

Our empirical analysis examined the CSR-HR continuum by focusing on an original composite index, the *CSR-HR-DAW Index*, and on its six pillars, reflecting the described basic employees-dedicated CSR measures. Therefore, the CSR-HR binomial was investigated both from an overall perspective (taking into account revenues from sales, country of origin,

operating country and industry field) and a particular perspective (analysing the individual components of the index).

3.1. DATA AND METHODOLOGY

In order to study the CSR-HR continuum, our research focused on top companies from the following seven Central and Southeastern Europe countries: Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. More precisely, we chose strictly the first five companies, from each country, ranked by revenues from sales 2009 within the Deloitte CE Top 500 Companies Ranking Report 2010 (Deloitte 2010), so as to reflect the economic performance component of our research. For revealing the CSR-HR continuum, we took into account six fundamental employees-oriented measures: *Improvement of labour conditions & job satisfaction*, *Work-private life balance*, *Equal opportunities & promotion of diversity*, *Personnel training & development*, *Participation of employees in the decision-making process*, and *Fair payment & financial support for employees*. The data regarding these measures was collected from several available public documents and on-line sources, such as: the CSR reports, the Sustainability reports, the CSR/Sustainability sections in the corporate annual reports, the corporate codes of ethical conduct, other on-line sources on the companies' websites.

Therefore, our original approach consisted in firstly developing the **CSR-HR composite index** by grading, at the level of each of the 35 companies, the six before mentioned measures, called either 'components' or 'pillars', while considering the following valuation system: **0**, for no mentioning of the pillar; **1**, for an average application of the pillar, compared within the overall sample; **2**, for an excellent application of the pillar, compared within the overall sample. The method of computation consisted further on in averaging the six values for each company, so as the maximum score of the CSR-HR composite index be equal to 1. Taking into account that we are interested in the *development stage* reached by the companies from the CSR in HR point of view, we only took into account in our research the most recent publicly and freely available CSR sources from the previously mentioned ones. Furthermore, considering that CSR could also strategically reveal the image of the company, we reflected the "Data Availability" criterion, also considering that there are many companies that report every two years on their sustainability strategies, by weighting the **CSR-HR composite index** as follows: **1**, for the 2010-2011 available data; **0.9**, for the 2009-2010 available data; **0.8**, for the 2008-2009 available data, and so on.

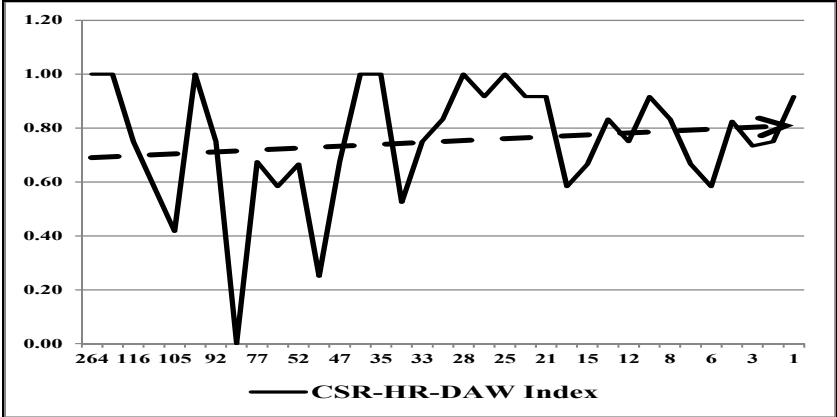
We thus developed the **CSR-HR-DAW Index** (*Corporate Social Responsibility – Human Resources – Data Availability Weighted Index*), while also weighting each of the 6 pillars and developing individual corporate scores: *Improvement of labour conditions & job satisfaction – DAW*, *Work-private life balance – DAW*, *Equal opportunities & promotion of diversity – DAW*, *Personnel training & development – DAW*, *Participation of employees in the decision-making process – DAW*, and *Fair payment & financial support for employees – DAW*.

3.2. MAIN FINDINGS

We analysed the CSR-HR continuum by focusing, first, on the overall performance of the developed index and, second, by emphasizing some evidences regarding each of its six components. As *Figure 1* illustrates, it seems that the index reflecting the CSR-HR continuum at the level of the analysed companies exhibits a slight positive trend with respect to the rank of the companies within the Deloitte CE Top 500 Companies when considering revenues from sales. This finding reflects that the economic performance of the companies, mirrored by the

revenues from sales, encourages the overall CSR measures targeting the employees of the companies from Central and Southeastern Europe countries.

Figure 1: The performance of the CSR-HR-DAW Index



Source: Authors’ representation using Deloitte 2010 report data and various CSR reporting sources.

Table 1: The CSR-HR-DAW Industry Average Indices

Industry	Energy & Resources	Manufacturing	Consumer Business & Transport.	Technology, Media & Telecomm.
CSR-HR-DAW Industry Average Index	0.72	0.78	0.74	0.92
Number of companies	17	10	6	2

Source: Authors’ representation using Deloitte 2010 report data and various CSR reporting sources.

When considering the average value of the index at industrial level, as can be observed in *Table 1*, the analysis for the above mentioned Central and Southeastern Europe countries revealed that the leading industry in terms of CSR-HR measures is the Technology, Media & Telecommunications one. However, taking into account that within our sample this industry accounts only for two companies, the high score might be a consequence of this circumstance and, therefore, the score is likely to evidence signs of bias. We consider more relevant the scores obtained for the other three industries. Firstly, we notice that the three values are quite similar, fact that reflects that the considered top companies, on average, take into account the employees-oriented CSR measures regardless the industry. Secondly, the average scores are fairly high, suggesting that, on average, the managers within these companies acknowledge their HR as a central stakeholder and asset and not only as merely workforce.

Table 2: The CSR-HR-DAW Country of Origin Average Indices

Company	Foreign	National
CSR-HR-DAW Country of Origin Average Index	0.84	0.67
Number of companies	16	19

Source: Authors’ representation using Deloitte 2010 report data and various CSR reporting sources.

When analysing the CSR-HR continuum from the perspective of the country of origin, the results displayed in *Table 2* indicate that the foreign companies within the Central and Southeastern Europe analysed countries show, indeed, more propensity towards employees-focused actions. Taking into account that, with few exceptions, the foreign studied companies

are from developed countries, we consider that this result might be the consequence of the general guidelines reflected in the CSR group policy. As far as the score of the average index for the national companies, though sensitively lower than its counterpart, reveal that these companies are focused on applying human resources CSR measures, while still being below the average value of the index, specifically 0.75.

The analysis conducted at the operating country level, displayed in *Table 3*, reflects that the companies applying more intensely HR CSR measures are situated in Hungary. However, this could be explained by the fact that, except one company, all the other four are foreign global companies, with powerful CSR policies. Another country that has an above average score is Slovakia. Taking into account that within the analysed sample in Slovakia two companies are also well-known multinationals, with scores closed to unit, this highly compensates the lower scores of the local companies. As one can notice, three countries have the average score (Czech Republic, Poland and Slovenia). Like the case of the Slovakian top companies, for the Czech and Polish top companies there are two foreign and three local ones. However, the foreign companies' scores are not that high to compensate the lower local scores, and, in some cases, are even lower. An interesting example is Slovenia because all the analysed companies are local ones. Therefore, one can deduce that, the top companies within this country have quite strongly focused on employees CSR policies. The last group of top companies is represented by the ones from Romania and Bulgaria, having below average scores. However, one can notice that the top Romanian companies' average score is close to the general average value, result reflecting the presence of two important foreign companies with high scores and a score equal to unity of a local company. When examining the case of Bulgaria, the result is not surprising considering that the only local company has a score equal to 0.

Table 3: The CSR-HR-DAW Operating Country Average Indices

Country	CSR-HR-DAW Country Average Index
Bulgaria	0.67
Romania	0.72
Czech Republic	0.75
Poland	0.75
Slovenia	0.75
Slovakia	0.77
Hungary	0.85

Source: Authors' representation using Deloitte 2010 report data and various CSR reporting sources.

The first part of the six pillar oriented analysis, displayed in *Table 4*, reflects that four of the averages of the six pillars have values above the average 0.75 score. The results are encouraging, reflecting that the overall index is not simply a result of some high scored components, but a reflection of a tendency towards a consolidated strategy of employees-oriented CSR measures within the Central and Southeastern Europe top companies. The results are not surprising in terms of preferred pillars within the analysed countries as, being companies from emerging and frontier countries, one can expect that these ones apply mostly the basic and strongly company-related measures. Therefore, one could expect that the pillars regarding the work-private life balance and those reflecting the involvement in the decision-making process to receive, on average, less attention, for the time being.

Table 4: The CSR-HR-DAW Pillars Average

Pillar	CSR-HR-DAW Pillars Average
Participation of employees in the decision-making process – DAW	0.53
Work-private life balance – DAW	0.56
Equal opportunities & promotion of diversity – DAW	0.81
Fair payment & financial support for employees – DAW	0.84
Improvement of labour conditions & job satisfaction – DAW	0.93
Personnel training & development – DAW	0.94

Source: Authors’ representation using Deloitte 2010 report data and various CSR reporting sources.

Regarding the analysis performed at the level of each of the six pillars, considering the rank of the companies within the Deloitte CE 2010 Top 500 Companies in terms of revenues from sales, the results are displayed in *Figure 2* (*Figures 2.1* up to *Figures 2.6*).

Figure 2: The performance of the CSR-HR-DAW Pillars Average

(Source: Authors’ representation using Deloitte 2010 report data and various CSR reporting sources.)

Figure 2.1: Personnel training & development – DAW

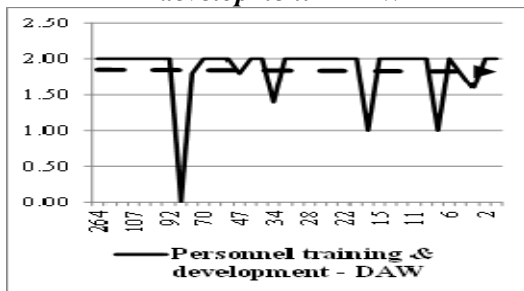


Figure 2.4: Equal opportunities & promotion of diversity – DAW

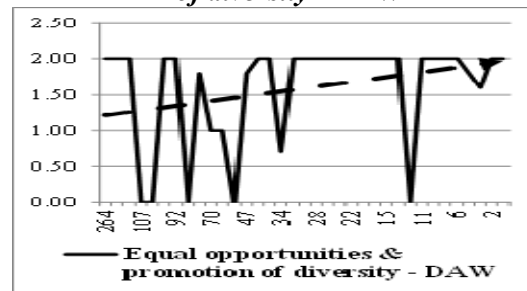


Figure 2.2: Improvement of labour conditions & job satisfaction – DAW

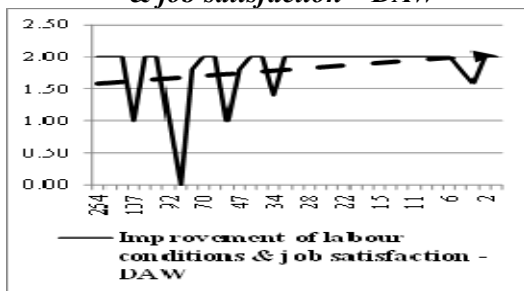


Figure 2.5: Work-private life balance for employees – DAW

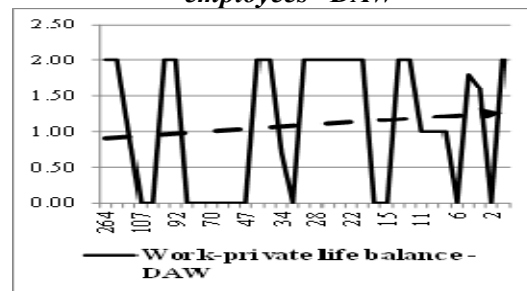


Figure 2.3: Fair payment & financial support for employees – DAW

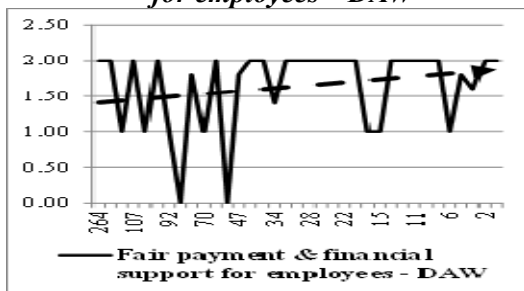
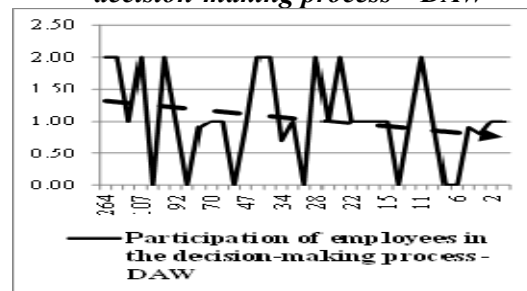


Figure 2.6: Participation of employees in the decision-making process – DAW



As it can be noticed in *Figures 2.2, 2.3, 2.4 and 2.5*, the pillars regarding *Improvement of labour conditions & job satisfaction, Fair payment & financial support for employees, Equal opportunities & promotion of diversity* and *Work-private life balance* seem to unveil a slight positive trend with respect to the rank of the company within the Deloitte CE Top 500 Companies in terms of revenues from sales. These results reveal that the economic performance of the companies, reflected by the revenues from sales, boosts the before mentioned actions targeting the employees of the companies from the Central and Southeastern Europe countries. The other two pillars, *Personnel training & development* and *Participation of employees in the decision-making process*, as can be noticed in *Figure 2.1 and 2.6*, seem to have a negative trend with respect to the company's rank, which could be a result of the fact that the higher the economic performance, the more company will invest in some or all of the other four pillars. Another possible interpretation of this result could be the high degree of centralization of the decision-making in case of very large companies.

4. RECOMMENDATIONS AND CONCLUSIONS

Concerning the relationship between CSR and HR two main trends could be identified at the global level: the first one, the basic one, refers to the CSR measures that the companies may apply for their employees in order to increase their retention and satisfaction degree, recognizing the importance of the personnel in assuring the corporate competitiveness (our empirical analysis is included in this first category); the second one, the more complex one, refers to the promotion of corporate values and CSR policies through the employees that are already well-motivated in the companies and are now communicating further on the model of corporate involvement in ecological, social and ethical issues (this approach comes across rather in the most developed countries of the world, that have already achieved a specific level of economic performance at corporate and national level).

The empirical analysis conducted for the 35 companies pertaining to Central and Southeastern Europe countries emphasized that, in the last years, major corporate advancements took place in terms of including and thoroughly applying employees-related CSR measures in the business strategies of the companies. The economic and financial performance of the analysed companies in Central and Southeastern Europe countries encourages the overall employees-related CSR measures. In the coming years, more focus is needed on those specific measures targeting the involvement of the employees in the decision-making process and a better work-life balance, considered to be more sensitive areas. The general conclusion of the present research is aimed to reaffirm the strong engagement of the analysed companies in Central and Southeastern Europe countries in the employees-related CSR measures in the last years, as a solid recognition of the role played by employees in strengthening corporate competitiveness.

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ROLE OF LEADERSHIP IN DEVELOPMENT OF GROUP ENTERPRISE

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Summary: Agricultural producers groups are an example of group enterprise in rural areas. As a result of dramatic history of Poland, and specifically the political turmoil after World War II, it was as late as in the 1990s that the idea of group farming obtained a new meaning and became intensively accomplished by farmers. The leader's role is very important in the process of establishment and functioning of agricultural producers groups. The paper emphasises the skills required of an effective leader of an agricultural producers group. The author undertakes an analysis of leadership styles and determines which ones are the most effective in case of group enterprise.

Keywords: agricultural producers groups, enterprise, leadership, leadership styles

1. INTRODUCTION

Success of any human activity depends on many simultaneous factors, with some of the factors dependent on the activity and some of them independent of it. The independent factors create the right conditions for undertaking activities; they include currency exchange rates, taxes, competition, legal regulations, costs of the means of production, etc. Among human-dependent factors, attention ought to be paid to applied operating strategies, distribution of duties, adopted incentive system which demonstrates considerable integrating impact, adopted organisation structure or the organisation and legal form, decisions related to selection of the leader and, consequently, the implemented leadership style.

The paper is devoted to the role of leadership in development of group enterprise, with particular focus on group enterprise in agriculture, with agricultural producers groups as a representation of this phenomenon. The requirement for farmers to organise in business structures results from certain fundamental reasons, including 1) business globalisation and resulting threats, 2) specific features and characteristics of agriculture as a division of national economy, 3) style and philosophy of life and work of farmers. Producers groups constitute a counterweight, a positive response to structural transformations in agriculture taking place at the beginning of 1990ies, which reflect adaptation of the economy to operation pursuant to new market mechanisms. They maintain the local and national culture and tradition, care for preservation of natural environment and develop social relationships. Irrespective of farm size, a farmer – as a business entity – is a small unit. If farmers organise themselves in agricultural producers groups, they become able to better plan the production and adapt it to the customers' needs, reduce the costs of production at the farm resulted by common purchases of the means of production, common utilisation of equipment, preparation of products for trade turnover and organisation of sales, as well as thanks to better access to information. Combination of access to capital and the aforementioned benefits causes growing interest of farmers in investments and implementation of innovative solutions at their farms.

2. GROUP ENTERPRISES IN RURAL AREAS

At present, the term of “enterprise” describes a certain feature of activities aimed at rational and effective utilisation of the organisation’s resources. Enterprise defined as above is a multidimensional phenomenon and may, for example, be examined in the economic (procedural) or social dimension.

In the economic dimension, enterprise is understood as a way of acting, involving readiness to initiate new, risky and unconventional undertakings and to demonstrate initiative in seeking and implementing them. Therefore, it constitutes an activity focused on development and it is innovative by nature. In the economic dimension, enterprise involves:

- creation of more effective organisation forms,
- implementation of new production factors,
- acquisition of new sales and purchasing markets,
- launching of new products (Kortan, 1997).

Therefore, one may pose a thesis that enterprise involves organised activities, focused on the abilities to generate and use innovative ideas to achieve measurable benefits, performed in the conditions of risk.

In a slightly broader social meaning, enterprise is a characteristic or a combination of psychological characteristics, which underlie being a good entrepreneur, such as dynamism and activity in recognising needs and improving ideas, ability to take advantage of encountered opportunities, ability to adapt to changing conditions and willingness to undertake risk. Enterprise is an individual trait of a person who demonstrates intelligence, innovation, ability to notice the conditions and relations occurring between business phenomena and the ability to organise trade, industrial and service related activity ensuring a surplus of incomes over the costs of generating them. Enterprise means innovation involving seeking of difference as compared with what other people do, finding more efficient ways of operating on the market, guaranteeing greater usability of products and services as well as higher business efficiency. It is, by nature, a competitive activity in relation to the activities of other companies (Fabiańska, 1986).

The area of enterprise distinguishes between individual and group enterprise, depending on the manner of conducting activities and scope of collaboration between people. Individual enterprise concerns activities of an individual, undertaken in order to establish and run own business. On the other hand, group enterprise relates to organised, conscious and voluntary cooperation of people, focused on accomplishment of a common objective, among others thanks to higher allocation of available resources, reduction of production costs (effect of scale and scope), increased impact onto the market (growth of market share). Group enterprise creates an opportunity, particularly for smaller business entities, to develop current undertakings or initiate new ones. One of the forms of group enterprise is a network organisation made up by several independent organisations related to one another by various cooperation bonds. For example, the following forms of integration may be distinguished: vertical (organisation networks are created around large companies), horizontal (network of an organisation manufacturing/producing similar product, usually within a given territory), vertical disintegration (network of small organisations established by a large enterprise) or a network created by way of incubation.

Most agricultural producers groups constitute examples of horizontal integration. They are established by owners of farms specialising in the same segment of production, with comparable production capacities (farm area, produced commodities, financial and material resources) functioning in the same area. Purposeful selection of farms is one of the conditions

required for success of this kind of activities. Here, an important role is played by the leader of the given local community who, upon recognising new opportunities, undertakes the effort of organising and leading a group of people.

3. ROLE OF LEADERSHIP IN ESTABLISHMENT OF AGRICULTURAL PRODUCERS GROUPS

Basically, the dynamics of establishment and functioning of agricultural producers groups does not differ at all from dynamics of social groups described by researchers into social psychology. For example, in his work "The Social Animal", E. Aronson explaining the functioning of an individual in the society emphasises that man is, by nature, a social creature and it is only when functioning within certain social structures that man can feel comfortable and safe. With this assumption as the starting point, one may claim that creation of appropriate conditions for operation of agricultural producers groups will enable popularisation of this form of cooperation. Effective leadership, consisting in the ability to create and lead a group, is the prerequisite of success in this respect. Consulting services played an important role in this area at the beginning of operation of agricultural producers groups. While promoting the idea of group enterprise in agriculture, consultants established cooperation with local community leaders and, with their assistance, encouraged farmers to form associations. Results of research conducted among members of agricultural producers groups reveal that consultants had the greatest influence onto the adopted decisions on establishment of groups. Thanks to the support provided by consulting entities at the decision making and organisation stage (selection of the organisation and legal form, development of statutes, preparation of documentation required to register the group, etc.), the beginning of the 1990s saw numerous initiatives aimed at establishment of this kind of business entities controlled by farmers. Unfortunately, a significant proportion of agricultural producers groups established back then never even got to begin business activity. Apart from the fact that the very process of establishing organisations by producers is difficult, the slow pace of development of this kind of organisations resulted from numerous barriers connected with external conditions (lack of legal regulations at that time concerning producers groups, lack of financial and organisation support, unfavourable fiscal system, etc.), as well as internal barriers connected with the farmer (the greatest barrier was the mentality of farmers and difficulties in finding a leader with a vision to lead the group of agricultural producers). In many cases, members of newly established groups may be divided into those who actively participated in establishment of the group and who still aim at its development, and those who join the group preventively (not to be worse than others) and do not participate actively in the group's works (Parzonko, 2006). This situation is in opposition to the idea of healthy collaboration. Despite that, the number of cases in which financial support is obtained by groups is growing, which has motivating influence onto others; what is more, farmers' awareness is growing and possible benefits from getting involved in common activities on the market are visible. On 6 June 2011, the registers maintained by voivodeship marshals throughout Poland contained 680 agricultural producers groups, associating 23,760 members. The highest number of groups was established after 2004, after which successive growth in the number of newly established groups was recorded. Pursuant to statistical data, agricultural producers groups were developing most dynamically in 2008, when as many as 158 groups were established; 135 groups were registered in 2009, and 156 groups in 2010.

Experience gained so far in the development of agricultural producers groups evidences potential importance of effective leadership in this process. A good leader gives the group a chance for effective activity oriented on achievement of the group's objectives and its further development.

Leadership is a process of influencing others in order to achieve specific objectives in specific situations, without using techniques, which are excessively based on forcing others to do certain things (Kuc, 2004).

The ability of effective and efficient leading a team depends both on innate predispositions and on experience of the individual. Authors dealing with the subject area of leadership differ with respect to considering importance of genetic factors and acquired ones. Some claim that most important are the innate characteristics as the ones, which determine specific reactions and styles of communicating with the group. Others emphasise that leadership skills are acquired while extending one's experience base and the field of self-awareness (Woyach, 1995). Remembering and systematisation of experiences so that they can exercise positive impact on future activities of the leader is influenced by familiarity with people's reactions to social influences, such as yielding, identification and internalisation. Each of these reactions is a manifestation of conformist behaviours, but with different importance to leadership influences. *Yielding* denotes behaviour of a person who is motivated by the will to obtain a reward or to avoid a punishment. This behaviour usually continues for as long as the promise of reward or threat of punishment persists – therefore, it is a short-term one. *Identification* is a reaction caused by the individual's will to be similar to the person the influence comes from. The individual indeed begins to believe in the opinions and values which he or she accepts, although not always deeply. If someone accepts a view by way of identification and subsequently becomes acquainted with counterarguments presented by a reliable person familiar with the subject area, the former person is likely to change his or her view. *Internalisation* of a given value is the most durable reaction to social influences. If one considers that the person exercising the influence is credible and has the right views, then the conviction propagated by that person is accepted and included into the influenced person's system of values. The motive of striving to justness, encountered in the case of internalisation, is a powerful and self-sustaining force. In the case of yielding, the power of the influencing person in terms of granting rewards for submission and exercising punishments for lack of submission is an important component; in identification, the decisive component is attractiveness of the person one identifies with, whereas in the case of internalisation – credibility of the person delivering the information. Altogether, these three components make up the competences of a contemporary organisation manager. However, a group of agricultural producers cannot be referred to as a contemporary organisation because of differences resulting from the character of their operation, different structures of mutual relations and internal influences and, above all, the culture worked out by many generations of farmers. Thus, it is the credibility of the leader followed by his or her attractiveness will play the major part in the discussions on effective leadership, whereas power (which, moreover, results from the ability to reward and punish) may not facilitate, but in fact, it may hinder management of the group. Group members perceive the leader as an attractive person in terms of personal characteristics, as a valuable person who thus deserves respect and is likeable. What is more, this must be a person who has the information necessary for effective operation of the group and constituting the basis of all activities, cooperating with institutions supporting operation of producers groups and organisations, which the group will or already does cooperate with.

Effectiveness of leadership influences (or leadership styles) depends not only on the skills and personal characteristics of the leader, but also on factors beyond the influence of the leader or influenced by the leader in an insignificant degree only. These elements include the nature of tasks faced by the group, time restrictions related to performance of those tasks and expectations of other group members. Basing on R. House's path-goal theory (the term of "path-goal theory" results from the conviction that effective leaders set this path to assist their

subordinates in overcoming the distance between the place where they currently are and the destination), four styles of leadership behaviours may be distinguished:

- directive leader, i.e. a leader who informs the subordinates what is expected of them, who programmes work and provides detailed instructions how to perform the tasks;
- supporting leader is a friendly person, caring to satisfy the subordinates' needs;
- participating leader is the type of superior who consults the subordinates' opinion and uses their assistance in the decision making process;
- leader focused on achievements sets difficult objectives to subordinates and expects of them ultimate efficiency (Robbins, 1998).

In case of issues related to leadership in agricultural producers groups, not all leadership styles mentioned above will be effective. Most effective leaders do not restrict themselves to one style only. Each week they freely and to a similar extent use all leadership styles, adapting them to specific situations. As the leader of a producers group is elected from among people who know one another very well and who frequently remain on friendly terms with one another, functioning in the same local environment, characteristics of the supporting and participating styles will be very likely to be recognised in the leader's activities.

Above all, the contemporary leader inspires and animates the necessary activities, focuses on competences; involvement, independence and responsibility of other group members to enable the group implement positive changes and achieve its objectives. A good leader is a person who is able to perform a proper analysis of the situation and propose ways to achieve the objectives, and finally divide the duties so that accomplishment of the objective is the achievement of all members. The leader provides best opportunities for effective initiation and management of collaboration of a group of people during performance of various undertakings as well as social and economic activities. Well-organised activities of members of an agricultural producers group allow achievement of the so-called synergy effect, i.e. achievement of much higher results thanks to cooperation than the sum of results achievable by the farmers individually.

The most desired form of leadership in a democratically managed group is so-called shared leadership, in which all group members feel responsible for the group and effects of its activities. During performance of a task, the most competent person in the given area becomes the group leader. The more the leadership functions are shared by group members, the greater is their motivation to act in a solidary manner and the more effective are their common decisions (Boguta, 2008).

4. CONCLUSIONS

On the basis of experiences from other countries it can be claimed that for Polish agriculture, and in particular for small and medium-sized farms, establishment of producers groups is a necessity. It is obvious that individual small, medium-sized or even large farms will not find recipients for their products. Competing and survival on the market is too expensive and difficult for them and, in many cases, it is impossible. For over a decade now, consolidation of benefits offered by group enterprise in the awareness of farmers can be observed. Gradual growth in the number of agricultural producers groups suggests that this form of cooperation is becoming a permanent element of the organisation structures of entities operating in the sector of agriculture.

The factors, which have positive influence onto development of group enterprise in agriculture, include effective leadership. A good leader is key to the success of the producers group, although the dynamics of producers groups operation suggests that different types of

leaders are needed depending on the group's development stage. Thus, so-called shared leadership may turn out to be most effective.

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THE CONTEMPORARY CONCEPT OF ENVIRONMENTAL ASPECTS RELATIONSHIP IN THE INTEGRATED PRODUCTION MANAGEMENT SYSTEM

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Summary: In improving their management systems, business entities more and more often compete for various awards and certificates, thus seeking to distinguish their market identity. Contemporary trends in environmental protection and the European Union's requirements cause organizations to give more consideration to pro-ecological activities. An increasing number of enterprises, wishing to create their image, will be interested in using not only quality standards, but also environmental management systems or industrial Health & Safety management systems. The present study makes an attempt to look comprehensively at the Integrated Management System, define the elements common to various management areas, and to propose new areas of integration that have not always been considered so far.

Keywords: integrated system, production management

1. INTRODUCTION

The changes going on in Poland over the last two decades, resulting from the performed system transformation and the process of integration with European communities, have covered all areas of the national economy, to a various extent and with a varying dynamics. Adjusting to the market economy rules and the requirements imposed by the European Union in the case of many enterprises proceeded in parallel and compelled those organizations to implement far-reaching changes of an organizational, technological, ownership, economic, and other nature. Processes that in many other countries evolved over a longer period as a result of the mutual inspiration of the world of science and industry, in post-communist countries proceeded very dynamically and rapidly.

The ecological aspect was initially the result of decommissioning of technologically obsolete industrial installations or implementing new technical-technological solutions and, on the other hand, the necessity of meeting the criteria laid down by the European Union. With time, however, contemporary market realities urged many business entities to undertake pro-ecological activities. The environmental awareness of entrepreneurs was focused both on the finished product and on the process of its manufacture.

For many branches in which strong competition occurs, ecology, similarly as quality, is one of the ways of distinguishing an organization's identity, but also it more and more often becomes a necessary but insufficient condition for achieving a success. The quality orientation initiated in Japan in the 1980s, being reflected also in marketing (Mantura, 2000 r.), expressed striving for perfection in all aspects of human activity. By its principles, it referred to the best characteristics of an economy, such as productivity, economy, effectiveness, innovativeness or environmental friendliness – features that in today's world build the competitive potential of an enterprise.

2. INTEGRATED MANAGEMENT SYSTEM

The Integrated Management System constitutes a combination of processes, procedures and practices used in an organization to implement its policy. This practice is usually more

effective in achieving policy goals that the approach based on separate systems (www.iso.org.pl, 2012 r.). Depending on the specificity of the branch, an organization implements an Integrated Management System consisting of different subsystems. The basis for the majority of such solutions is the Quality Management System conforming to the requirements of standard ISO 9001, which is most often combined with the ISO 14001 Environmental Management System, the PN-N-18001 Health & Safety Management System, the ISO 27001 Information Security Management System, or branch-specific systems (such as ISO 22000 Food Safety Management System, the Hazard Analysis and Critical Control Point (HACCP) System, Feed Safety Assurance System (GMP+), Good Manufacturing Practice (GMP), Good Hygiene Practice (GHP)), or requirements, such as the AQAP (quality systems required for the army). Integration may not only concern systems implemented in accordance with the requirements of ISO standards, but it can also be carried out in areas, such as the logistics system, the accreditation of laboratories, the financial system, etc.

The benefits of the implemented Integrated Management System include, but are not limited to the following (www.iso.org.pl, 2012 r.) (Łańcucki, 2001 r.) (Urbaniak, 2004 r.):

- positive shaping of the image of a company in the opinion of not only its customers, but also employees, suppliers, competitors, society, local government authorities or State supervisory bodies;
- optimization of financial expenditures related to the implementation and maintenance of the system;
- harmonization of documentation (procedures, instructions, records) and reduction of its volume;
- streamlining of management;
- reinforcing the company's position, especially in the European Union market;
- effective management of possessed resources;
- increasing the flexibility in introducing changes;
- facilitation in meeting regulations and assuring the timely adaptation of internal regulations to changes occurring in the applicable legal system.

The need for integrating management with various systems arose with the publication of subsequent standards and subjecting successive system management areas to certification. The literature on the subject (Łańcucki, 2001 r.) distinguishes three modes of integration:

- building an integrated system from scratch;
- building a system for managing one aspect and then the gradual integration of subsequent systems with the existing system;
- building separate systems for managing individual aspects and then their gradual integration.

As has already been mentioned earlier, the most commonly found system is the one in which an enterprise has an already implemented Quality Management System based on standard ISO 9001, and then it wishes also to function in conformance to standard ISO 14001 or PN-N-18001. A situation where quality management is, as if, extended by the environmental aspect or the Health & Safety aspect is theoretically justified in some ways. Indeed, considering these areas in a comprehensive manner is not a new idea, as already Genichi Taguchi perceived the complementary nature of these aspects.

He defined the product quality as a loss transferred by a product to society, counting from the time of shipping that product. He assumed, therefore, that each product delivered to the user causes a loss, which is the lower, the higher the quality of that product is. The notion of losses to society is understood as, for example, the contamination of the natural environment and the associated civilization diseases, but also the consumer's dissatisfaction or the manufacturer's

losses caused by the disadvantageous image of the organization, which result in a loss of selling markets in the long term (Łańcucki, Kowalska, Łuczak, 1995 r.).

Thus, Taguchi's definition quoted above makes the quality level of a product dependent on the degree of safety of its manufacturing to the natural environment and the employee's health. Such an approach should be the basic goal of Integrated Management Systems, integrating the often overlapping and complementary partial goals of individual areas.

3. LEGAL FRAMEWORK FOR ENVIRONMENTAL PROTECTION

The Polish environmental protection legislation is based on several basic acts and related implementing regulations. These include, among others (Ulewicz M., Siwka, 2010 r.):

- The Act on the Environmental Law (of 27 April 2001, as amended on 20 November 2009).
- The Act on the Water Law (of 18 July 2001).
- The Act on Waste (of 27 April 2001).
- The Act on Packages and Waste Packages (of 11 May 2001).
- The Act on Used Electrical and Electronic Equipment (of 29 July 2005, amended on 21 November 2008).
- The Act on the Recycling of End-of-Life Vehicles (of 20 January 2005).
- The Act on Batteries and Accumulators (of 24 April 2009).
- The Act on Mining Waste (of 10 July 2008).

Business entities who use installations in their production process, whose functioning, considering the type and scale of the conducted activity, might cause considerable contamination of particular natural elements or the environment, as a whole, are required to obtain the so called integrated permit. This is a special type of permit (IPPC - Integrated Pollution Prevention and Control – Directive of the European Union No. 96/61/EC of 24 September 1996; the Act on the Environmental Protection Law) for introducing substances or energy to any components of the environment, while complying with the environmental protection requirements, following the rules of so called Best Available Techniques (BAT). This permit is granted for a period no longer than 10 years, and once every 5 years its review should also be made by the issuing authority. The Permit specifies the following, among other things: the conditions and quantities of emissions of gases or dust; the conditions of water intake under provisions laid down in the Act on the Water Law; the permissible noise level; the conditions to be met by discharged waste water; the conditions of generation and the methods of handling the waste.

Recently, the European Commission has concluded that the IPPC Directive in question does not bring about the effects expected at the time of its drawing up, leaving EU Member Countries too much freedom in establishing requirements to be included in integrated permits. This situation distorted the competitiveness rule of the Community market by creating disproportions in the adjustment of enterprises to the environmental protection requirements. Therefore, a new Directive of the European Parliament and the Council 2010/75/EU of 24 November 2010 on industrial emissions ((IED - Integrated Pollution Prevention and Control) has been drawn up, whose purpose is to:

- improve of the existing system,
- simplify the administration procedures in force, and
- harmonize the permit issuance requirements in all European Union countries.

In accordance with the provisions of the new IED Directive, each enterprise subject to the obligation of obtaining an integrated permit shall adjust itself to the changes occurred in the legislation (these shall be implemented to national legislation by 7 January 2013, at the latest) (<http://srodowisko.wip.pl>, 2012 r.).

The Integrated Permit applicable both currently and in the future, being a peculiar administrative decision, constitutes actually a kind of a licence for conducting a particular activity, because the Act demands that the functioning of any installations operated without the required permit be withheld. Such peculiar State intervention is also consistent with the idea of sustainable development, meaning a social and economic development or growth complying with the environmental requirements. This concept is generally viewed on a macroeconomic scale (e.g. a different approach to the problems under discussion is dependent on the level of economic development of a particular country); however, its implementation will require, above all, a pro-ecologic orientation in the management of the enterprise, which, in practice, refers to the ISO 14000 standards. So, individual Environmental Management System elements reflect, on the one hand, the top-down imposed restrictions and, on the other hand, the level of the Steel Mill's pro-ecological policy.

The above-mentioned legal measures are already an element of the national legislation setting the directions of the ecological policy, where the utilization of waste plays an important role.

The Act on Waste provides for the implementation of a new system for handling any types of waste. This procedure should be followed in several successive steps: the prevention of waste formation, the selection of waste and its economic utilization as substitutes for raw-materials; waste disposal; storage, as an element of waste disposal; landfilling. The Act under discussion has also obliged relevant bodies to create a National Waste Management Plan for the years 2002 – 2014 (to be updated not less frequently than every four years; currently, the update on 2010 will be the year 2014), in which the waste handling rules will provide a basis for setting long-term tasks. Such tasks are necessary for carrying out the objectives set out in the State's ecological policy geared towards achieving EU standards.

4. SUSTAINABLE DEVELOPMENT

The economic growth has not only increased production, by also contributed to environmental pollution. The wrong management of the national economy's resources and space has resulted in the degradation of many natural environment components, as well as to the inhibition of the economic growth potential. The economic growth led to increased interference in the natural environment, which, in turn, upset the balance in the functioning of humans in their environment. The idea of sustainable development is a concept that proposes a new definition of the man - environment relation in which humans not only use environmental resources, but, above all, protect and rationally manage them (Gajdzik, Wyciślik, 2010 r.). The definition of this new role of man in the natural environment entails the need for defining the boundaries of his interference in the environment in the contexts of the existence and development of civilization (Adamczyk, Nitkiewicz, 2007).

Of key importance to sustainable development are the issues of:

- interrelations of economic, social and environmental aspects,
- the increase in societies' awareness of the fact that the economic growth alone is not sufficient for resolving the world's problems in the waste management process.

All activities within sustainable development are conducted in the society-economy-environment system. According to Poskrobko (2009) the following deserve special attention:

- maintaining the natural bases of economic development in the near or further future in the global, regional and local setting;
- protection of natural processes at all levels of nature organization: the genetic, ecosystem, landscape and the biospherical levels;
- assuring the sustainability of the development of the economy and societies through the skilled management of resources.

Regardless of the plane of action, the basic idea remains the same: the people, the environment and the economic systems are interrelated. The sustainable development is a continuous process. It is not possible to define the boundary conditions, the detailed mode of execution or the closed targets for it (with new conditions, new targets arise).

5. THE WASTE MANAGEMENT PROCESS IN THE INTEGRATED MANAGEMENT SYSTEM

The proper management of waste resources in the Integrated Management System constitutes an essential element both for the environment and for the functioning of man. There exist various available methods for using the waste stream in the management of individual product types. In each of these cases, we encounter a potential, as well as the need for utilizing one or more waste groups.

Managing a growing amount and variety of waste materials needs systemic solutions. Recycling in waste management is a common way of using the potential of waste materials. However, this notion is very often used for marketing purposes only. By analyzing available information, the hierarchy of the advantages of waste management methods can be set up as: prevention, limitation, reuse, recycling, recovery and disposal.

As can be seen from the above priority list, recycling is ranked rather low in the hierarchy of benefits in the system of management of waste stream utilization processes. In the Integrated Management System, two aspects can be distinguished: the utilization of physical waste and the allocation of material and energy expenditures on the reuse of generated waste.

The first of the above aspects involves the need for the proper classification of waste formed, also within the same group. The unit of a selected waste type, e.g. aluminium, may constitute a separate value in each branch of the national economy. It may contain different types of admixtures or contaminants that will make the waste suitable for a specific way of utilization. It therefore seems justifiable to make a summary that will contain the following information: the amount of waste generated, the classification of waste types (along with the code and subgroup symbols), the source of generation, the form in which the material occurs (along with its composition), and the information about the environmental impact of the waste. A preliminary provides a qualitative-quantitative basis for defining the method of preventing the generation of waste and/or its utilization.

The second of the above-mentioned aspects should consider activities including planning, organizing and controlling the resources in such a manner as to ultimately minimize the amount of non-utilized wastes. The process approach is an approach that is clear and intelligible and covers all management functions. Such a approach makes it possible to promptly respond to new conditions in the functioning of enterprises, and also allows for all management levels, i.e.: strategic, tactical and operational (Gajdzik, 2008 r.). The developed iron-bearing waste utilization process management system should constitute one of the components of the Integrated Enterprise Management System.

Modern Integrated Production Management System should take into account environmental, Health & Safety, as well as quality management aspects. The contemporary quality means not only the reduction of nonconformities occurred in finished products, but also inclusion of energy factors and the manufacturer's responsibility for waste management. Waste management should start already at the stage of the production system planning process. Being aware of the fact that the problems associated with the utilization of not only production but also operational wastes will ultimately be also his responsibility to some extent, the manufacturer will adopt the proper attitude towards the waste management method.

6. CONCLUSION

Integration of management systems is not and should not be just an administrative decision to simplify the organizational structure of the organization. Preventive or process approach based on a philosophy of continuous improvement (Deming cycle) provides the connection seemingly different areas of the business. Among the various aspects special role, in recent years, plays environmental management system largely shaped by the cases of legal regulations. In this situation, it seems obvious the fact that any forward-looking environmental initiatives, beyond the required actions, reflect the essence of integration. One of the most promising and preferred in directions of EU legislation is the problem of waste management.

As has been demonstrated by the discussion provided herein, iron-bearing wastes arise in any sector. To develop the appropriate procedures for the effective utilization of iron-bearing material sources, a number of factors need to be considered, such as: the amount of waste generated, waste classification, the source of generation, the form in which a material occurs, the forms of contamination, and the information about the environmental impact of the waste. The creation of an iron-bearing waste resource management system for a selected branch of the economy would enable uniform rules of handling a specific waste group to be implemented. Moreover, the collected information in the form of appropriate databases to be used by relevant information systems would improve the level of conformance of the formal and legal status of waste generation. Together with respective procedures, the management system will allow the correct storage of already generated wastes in the human-environment system.

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MOTIVATIONAL ROLE OF PUNISHMENT AND REWARDS IN THE ORGANIZATION

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Summary: Knowledge about motivation, i.e. what motivation is and how to motivate employees has every manager, the fact that the rewards and punishments are the most popular motivating factor also seems to be obvious, but whether they are most effective way to motivate remains still an opened question. Contrary to popular opinions - motivating is one of the most difficult tasks that a manager should take. The concepts of motivational systems allows to identify what constitutes a source of motivation and the basis for building employee engagement activities. Most classic and effective motivator for centuries were the penalties and rewards. This article presents the importance of the most traditional motivational factors, namely, penalties and rewards. The article has theoretical-empirical character. The role of penalties and awards at the work of the salesman was presented.

Keywords: employee incentive systems, effective motivation, motivation incentives, motivating intangible, non-wage incentives

1. INTRODUCTION

Recent studies have shown that the system of motivation, in a broad sense, is a set of basic instruments and management tools. The criterion for selecting these measures should be motivation influence effectiveness. In practice of the modern companies, this problem boils down to not so much to building integrated, complex and powerful motivational systems, but mostly to the choice of tools and motivating factors that are a composition of these incentives, forming a motivation systems.

2. THE MOTIVATION AND THE PROCESS OF MOTIVATION

The word "motivation" is derived from the Latin word *movere* (induces to move). Continuous changes and market development causes many transformations in the Organisations and it enforces the need to create a positive image in the eyes of employees, customers and the public. One of the tools is the motivation to work, defined as a set of psychological factors, psychological and physiological, inducing the desired behaviour in humans, to achieve its purpose. The concept of motivation has many different meanings. Most frequently this term is understood by the man's state of readiness to take a specific action. In this sense, some people are motivated to work, others to something else.

Problems of motivation occupy many sciences, especially psychology and economics. In each person, the motivation is variable in time and space, so far no one has created a prescription for effective motivation, it is known that the source of motivation lies in the human psyche. Motivation includes all these factors, which stimulate a man to action, which give a certain direction and influence to maintain the state of arousal. In the science of management, motivation is recognized as one of the main functions of management, and even one of the key management techniques. Since the motivation of action depends first and foremost the achievement of significant results at work.

In theory of human resources management, an thesis is formulated, that the occupational usefulness of worker is measured how they contribute to the development of company, is a function of his qualifications and motivation. Poorly motivated worker is very little useful for companies, even those with high qualifications. Proper understanding of the process of motivation by managers and business owners is important for managing and directing people in the process of labour and wage policy. However, this requires knowledge and analysis of various theories of motivation to work, which was founded and many is still being created. In literature of the organization and management characterized are different ways and models of motivation. Some general principles of motivation have already been etched permanently into management practices, but still there is no universal system of motivation for all employees. Individual needs, characteristics and behaviour of people working in organizations cause that only a framework projects of motivation can be moved from one company to another, but each employee should be driven individually, because he has different needs. Each organization creates a system of impacts on its participants, which aims to encourage them to favourable behavioural manifestations and avoidance of behaviours that are detrimental to the organization. All this type of interaction is called the *motivation system*.

Motivation is also a steering process consists in influencing the behaviour of people, including the knowledge of what causes this, and no other human behaviour. It refers to human behaviour, which lies between two extremes: the actions and learned reflexogenic habits. Motivation has been a subject of psychologists' research. Definition of motivation literature presents the entire spectrum, mostly it is stated that "motivation is a set of triggers for deliberate action," and the process of motivation is an internal mental process, constantly changing its intensity and even direction. Actions taken under the influence of the process of motivation are intentional, or are controlled by a conscious desire by man as a goal: (Borkowska 2004:12). "In literature, the process of motivation is characterized by two main features: the direction of desire - namely purposes for which the person seeks action; this influence of organization lies in the fact that its objectives and objectives of managed people are compatible, the strength of aspirations, that controls human behaviour, and set by the needs, values, aspirations, etc. The strength of aspirations is most important in difficult situations, when not only affect the intensification of activities, but also can change their form and directions." (Gick, Tarczyńska 1999:27). Also, many authors points out that the negative factors (such as the threat of losing stability of employment, competition, fear of losing their position) make a stronger motivation than positive factors (e.g. interest, morale, training). If the chance of achieving the intended purpose are very small, or even close to zero, then the employee loses the engagement, looking for other options for action, and above all no longer identify with the objectives of the company. Motivators are no motives, that are internal promoters of human activity, and the best designed incentive systems in the company don't have the effect. If employees' earnings do not allow him to have a decent live and meeting the needs of families, then work will not be for him a path to development. "Man is a system that regulates itself and its relationship with the environment. Important role is played in this regulation the emotional processes, which affect the level of energy that the organism will mobilize at any given time and whether that energy is consumed to maintain the state of affairs in which it is trigger, or the decommissioning of this state." (Reykowski 1979:797). Each person feels the need, and each seeks to strengthen and increase self-esteem, but the intensity of the needs and aspirations, and their character are not identical. It largely depends on economic and organizational factors. If the unit is to establish themselves to achieve a particular purpose, the goal of this activity must be for it attractive. Professional tasks become attractive when they are means to achieve something valuable, such as pay, praise, promotion. Regardless of how much influence it has on the conduct of the working person may have an internal motivation, you must reckon with the fact that for a long time for people the external

motivation will play a major role, for which the result of the work is only a means. It is connected in a natural way with the fact that much of human needs is satisfied with the economic measures (Reykowski 1979:38). In order to professional activity results become attractive, that is to gain for the individual award value, there must be meted certain conditions. Some of them relate to the permanent of an individual experiences (the conditions of education), while others relate to the situation in which the activity takes place (situational conditions). The management uses a variety of psychological models of motivation to encourage employees or result in more intensive and efficient work. Motivation plays a huge role in the life and functioning of the individual. It increases phenomenon of needs, change and intention. It accompanies man from an early age, and pushes it into action at every stage of his life. It is what makes people grow and improve. It has equally crucial importance in the case of the enterprise. It depends on the degree of employee motivation, quality and efficiency of work he does, which affects the condition of the company. There are three main approaches to motivation: behavioural, humanistic and cognitive sciences.

Behavioural approach - determining role in explaining human behaviour is assigned to external factors. Behaviours of people, according to the behaviourists, are reactions to stimulation which act on them from the environment. External stimulation are divided into positive and negative. Awards are called positive and negative punishments. Human behaviour are rewarded preservation, and punished by weakening and elimination.

Humanistic approach - highlights the role of internal determinants of human behaviour, especially his needs and emotions. It is stressed that external stimulation only after "processing" in all of us take on meaning of motivation. According to Abraham Maslow - people are motivated by a hierarchical system of five basic needs: physiological (hunger, thirst), safety (confidence, freedom), social (love, belonging), esteem (achievement, prestige), self (cognitive needs, the ability to interest).

Cognitive approach - the scope and structure of owned by human information about reality, creating a cognitive network, determine its behaviour. Cognitive network is shaped throughout the life of the human being under the influence of information extracted from outside and generated within it. The penalties are as old as the world. According to the Bible, our first parents Adam and Eve were the first showed tendencies for undesirable behaviour, and were expelled from paradise for it. It seems that they inherited this characteristic, and the reaction to it is a higher incidence of penalties than rewards in interpersonal relations.

At least, according to a study conducted in Polish organizations in their rules of procedure punishments occupies far more space than awards, similar fact occur in the practice of their application.

2.1. THEORETICAL ASPECTS OF REWARD AND PUNISHMENT

The penalty can be defined as the punishment used for persons who commit a crime or in any way violated the law or moral standards, punishment is also the educational mean intended to inhibition of various offenses. Penalty is also a negative situation, the man is trying to avoid. The award however is a moral or material distinction for the merits or the achieved results, it can be for example a sum of money, a diploma and medal, a valuable object which is a form of recognition or awards.

The award, in contrast to the punishment is understood as a positive situation, which is usually a man tends. The function of the awards is to develop and preserve the positive behaviours, and the task of penalties is to eliminate bad behaviours and reactions by society. In order to motivate employees commonly used are the penalties and rewards. In

organizations there are many types of penalties (such as statutory penalties or satirical penalties: derision, ridicule, contempt) and awards, which are divided into: official (praise, bonus) and informal (recognition, respect, co-workers). Rewards and punishments can be divided as to the material (cash, such as a pay rise, bonus, lower wage) and the immaterial (non-material, such as verbal praise, expressing respect for the worker, which is giving him confidence in management, allocating work more interesting, as well as admonition, reprimand). Rewards and punishments are the most important tools of motivational influence the behaviour of employees. Organizational rewards and punishments are mainly related to the salary and promotion opportunities. Awards function is shaping or consolidating among the employees' behaviours aimed at achieving organizational goals, however penalties are designed to eliminate behaviour hindering their achievement. Organizational rewards and punishments are included in the relevant regulations, in which defined is what behaviours desirable or undesirable assigned are the reward or punishment. About the way and the use of organizational rewards and punishments decide mostly managers. They also run own repertoire of rewards and punishments, which based on their personality, and manifests itself in a particular way treatment of subordinates. Some managers apply supervision awarding, and therefore recognize mostly positive behaviour subordinates and reward them while others apply supervision, judgment, that is recognize errors of employees and punish them for it. The source of rewards and punishments in the organization are also behaviours of individual members of work teams and whole groups.

3. THE SYSTEM OF PENALTIES AND REWARDS IN A CAR DEALERSHIP

In this section presented was a system of penalties and rewards applied to staff engaged in sales in car dealership. The tasks of trader are selling new cars, Redeeming and selling used cars, selling banking products, such as loans or Lessing and the sale of insurance products. In this manufacturing the position of Dealer used are multiple motivators (penalties and rewards) affecting mainly on salary. These are both material tools, but there are also non-material. In car dealership functions proper bonus system, which is significantly cheers to achieve previously established goals.

An efficient motivation system in described Company has objective criteria for bonus tasks fulfilment evaluation and has qualitative and quantitative targets to achieve, it determines also opportunities for additional awards other than remuneration. The bonus program in the company is clear and legible, it consists of several elements. this allows its understanding and makes that it's know what to do to receive extra bonus.

Simple and transparent bonus system results that the car dealership employee at any time is able to calculate of his income and knows how much, and how can he still earn some extra money. This helps in effective and rational organization of work. The bonus system is not the only reward-instrument used in the described company. That, what motivates and at the same time isn't only a salary, but reward in work: relationship with the boss, positive atmosphere at work, equal treatment of all employees, development opportunities, sense of security, and consequently pro-efficiency organisational culture. One of the important awards instrument (motivational) immaterial are integration and training trips. The abundance of this kind of meetings on the training market causes that such events are not necessarily expensive, and affect the better understanding of and integration of employees, also around the company's goals. Also relationships between superiors and subordinates at such meetings tighten up, what later often helps in performing daily duties and improving relations at the work. The realities of a competitive market favour the concerns about employment security. In the analyzed company manager provides a sense of security, because only in this situation can

motivate to action those employees, who realize that not execution of the plan results in certain consequences. Employees in the company see perspectives of development, when they achieve the effects can in the work always count on the prize. A sense of stability and vision of the future give birth to peace and contentment, allow you to make plans for personal and these are factors, which create conditions for use in full their potential in working life. In the referred company, as a salesman another important motivating factor and contributing to a sense of security is to provide good work organization. Employees of car dealership see their company as ordered and properly managed, in which they respected superiors and gain confidence in the sense of their actions. The usual so-called "Pat on the shoulder" this is another positively motivating factor observed in the described company. Almost every person likes to be praised by colleagues and bosses. For very few people gaining recognition in own eyes is is enough. Letters and emails with thanks, praises expressed individually or in the forum, tokens of recognition transmitted in everyday conversation do not cost anything, and give wings almost to every employee. Under one condition only, that they are sincere and not overused. A major distinction for employees is to ask to perform specific tasks or to address the prestigious key customers. This is a reward, a true recognition for competence and capabilities of the employee. The company employees unwillingly write reports, those of best rewarded are with the privilege of sending reports once a month, instead of every week. The price of such a decision is a loss of control over the activities of the seller, which must be a person truly fair and must be able to appreciate, how much trust has been endowed. Enrichment by the head of sales the work of his subordinates, protects them from professional burnout. Salesman, which will break from the daily visits and responsibilities, become more involved in the work. Many sellers treat the company meetings as an interesting diversion. A similar role plays trip to a conference or a fair, special sales projects, placing on the market a new product or change of promotion strategies. Solutions are many, all protects workers against falling into routine, discouragement and monotony and they motivate to action, are an excellent reward for the employee. The head of Sales, who himself is motivated to work, has a positive effect on his sales. Only such boss is able to push subordinates to act, persuade to increase their efforts and overcoming difficulties. The superior, who for some reason suffers from work aversion affect destructive to whole team, "Infects" it and takes away desire to make efforts. The role of properly selected purposes is well known. They must be clear, understandable and ambitious. In described the company employee as a salesman usually participates in setting goals and therefore feels share responsibility for their size and execution, therefore does not dispute the findings, that were previously agreed in conversation with supervisor. That is why at the company discussions are conducted in open way for both sides and partner relationships prevailing between boss and seller. Normally dealers are anxiously waiting for the results of their work. The more often may be informed about achieved sales results, the better. In the described Company effects are visible at once and add wings (or force them to reflect and search causes of failures). A significant role also plays a way of announcing sales results. Most of the employees like competition, as long as it is based for viable principles. In the case of car dealership so it is. Rankings are created, those distinguishes the best and warn the weakest. It must be remembered that both in the case of those outstanding sales representatives and those who need assistance those rankings are to be motivating. These rankings are to be form of reward, or penalty for inefficient traders. Theorem of A.L. McGinnis is worth remembering, he said: "every manager, boss must be a psychologist, because success of the company depends more on managerial skills, than on the hard work and knowledge. Many men do a brilliant career with vast technical knowledge. However, when it reaches level on which further success depends on effort of others, He simply gets bogged down, because he has not learned the art of increasing of knowledge through motivations (McGinnis 1992:31). Any manager should properly motivate his

subordinates in order to they gave everything that they can in the work. In order to create such an incentive, it must be remembered of at least about the following indications: motivation should be started from ourselves, because you cannot motivate someone, if you are not motivated yourself. When motivating others you have to remember about transparent communicating, because the lack of understanding is the most common cause of conflict. Important is the awareness of own purposes and sincere devotion to them. The most convincing and motivating person is someone who knows where he is going and have complete confidence and faith that he will get there. It is essential that goal setting before employees, putting the bar high, challenges and goals. There are few things that motivate more than reward and praise. When saying to employees, that they do well, it makes them to even more effective work, this is the best reward. It is essential that also to create a friendly competition. Each person have a competitive spirit, therefore referring to it provides a positive motivation. To motivate people to work it is important not to give to them too much information at once. Employees of like to feel important, even indispensable on his post, so a very good way to motivate is to show by the employer, how much appreciated is his subordinates and believe in their abilities, skills. Of course, there are many ways to reward and punish workers. Surely, anyone who deals with managing people has his favourite, methods developed over the years. Note, however, that even the best way with time can simply "burn out" and then it would be good to change it. The differentiation, and therefore modernization of ways to stimulate motivation surely will come out for good for the company. Managers should be aware about several key issues, namely, the employees usually want, that to be better than worse, employees have their individual needs, and basis for motivating is their recognition and satisfaction, employees need to know exactly for what they are paid, and for what rewarded (it is important to award with pay increases, bonuses and prizes were properly regulated), It is also important that employees understand correlation of their work with the work of others, they must know that their work is meaningful.

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THE ASSESSMENT OF MANAGERIAL STAFF IN COMPETENCE MANAGEMENT SYSTEM IN ENTERPRISES

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Summary: The increasing impact of such phenomena as competition, economic globalization, the complexity and flexibility of structural solutions, the informatization of labour and communication processes in the context of developing and disseminating the theories related to the management of knowledge, intellectual and human capital, competences and talent management leads to the acceptance of the thesis (by theoreticians and practitioners alike) which states that apart from the commonly recognised functions performed by company employees, corporate effectiveness is affected by managerial staff.

The above processes lead to greater requirements related to corporate management methods as well as to the qualifications of managerial staff members. Executive skills, understood as the manager's personality, knowledge, qualifications and attitudes, enhance the corporate behaviour, which is prerequisite to effective, efficient and ethical management. Managerial skills understood in this way, apart from other internal and external factors determine the company's effectiveness and constitute a source of its competitive advantage. The process of developing such skills should be compatible with the company's expansion trends. Companies operating in a dynamic environment need creative managers who are ready to face new challenges and develop their skills. Therefore, the level of executive skills should be analysed on a regular basis.

The objective of this article is to present the role of evaluation of managerial staff in competence management system in enterprises, and in particular, an indication of the assessment function of the managerial competences and Human Resources processes based on the results of this assessment.

Keywords: assessment system, managerial staff competence, competence management system

1. THE IDEA OF THE ASSESSMENT SYSTEM OF MANAGERIAL STAFF COMPETENCE

Managerial staff competence, as a dynamic structure they change (Levy–Leboyer 1997, p. 8). However, it should be noted that the direction of these changes may not always be positive, indicating the development of competence. There may also occur the negative direction of changes, which entails obsolescence of competence, which results in a significant reduction in the efficiency and effectiveness of management, impeding the implementation of the current objectives of the enterprise, as well as preventing its development, creation of innovation and in consequence constituting a barrier to improve competitive position.

The incompetence of managers, resulting from ignorance, lack of experience in business management, causes inefficiency in their operations, resulting in a failure to make the right decision at the right time or consent to carry out the missed investment. Incompetence of manager also causes fear of losing jobs and connected with it aversion to risk, which is reflected in the tendency to implement conservation measures, selecting of proven – safe solutions, avoiding difficulties, experiment with innovations, adoption of new ideas, in order to minimize the negative (difficult to predict) effects of his/her decisions.

Overcoming of indicated barriers leads to the elimination of competence gap, through the identification and evaluation of managerial competence level, followed by the demarcation of directions and methods of their improvement is the essence of the problem of assessing the competence of management, which seems to be important in terms of both modern management theory and practices of companies.

Therefore, the level of managerial staff competence should be systematically diagnosed. Identification of the current level of competence and determination of the probable direction of change can be determined by a competence assessment system for managerial staff. This system can be defined as a system deliberately targeted, internally organized and mutually consistent elements, recognized as appropriate from the perspective of organizational strategy, enabling it to structure and formalize action in order to give a value judgment about the competence of management and ensure the constancy in the process of assessment of competence and in the same time contributing to effective management over managers' competence in the company.

2. THE FUNCTIONS OF MANAGEMENT'S COMPETENCY ASSESSMENT

Assessment constitutes a value judgment of something expressed in the oral or written form. However, the assessment is the issuing of opinions about someone or something, expressing of value judgment for someone or somebody. Czubasiecz, based on conceptual analysis from the perspective of different disciplines (psychology, philosophy, HR management), states that the assessment can be characterized by the following features. It is a value judgment, is universal, has a strong relationship with cognition – it enables to explore the world and exploit knowledge to shape our behaviour, it is a source of knowledge about ourselves, about how we are perceived, as compared to others; is utilitarian in nature, and therefore, it requires justification, a statement with a reference point; is closely linked with emotions, is rooted in emotions, evokes emotion, by itself is neither true nor false, the terms of assessment and evaluator's intentions decide on that (Czubasiecz 2005, p.21).

In a common perception the assessment plays evaluative and developmental functions (Kostera 1996, p. 70; Filipowicz 2004, p. 127). The evaluative function consists of such activities as: assessing the level of work, its quality, determination of the suitability degree for the given post. The results of this assessment can be used to shape the salary, to change the employment structure (transfer, demotion, promotion, dismissal), and to evaluate the effectiveness of recruitment system.

The developmental function of evaluation should be considered in terms of an assessment of the development potential of a manager, knowledge and skills and progress in this range. Developmental function of assessment is a source of motivation by providing feedback on the positive and negative aspects of the performance of the employee, on this basis also allows to plan the development of particular employee. The criteria for evaluation are an important factor affecting the changes in employees' attitudes, ensure that the desired standards and principles are met, which favors the formation of organizational culture. Filipowicz also isolated business function of evaluations, which manifests itself at the time of planning on the basis of evaluations' results of competency resource development required to achieve the organization's business goals (Filipowicz 2004, p. 128).

The competency assessment system plays also a function of pro-innovation, due to the release of innovative attitude in the managers by interaction of the system on the following managers' behaviours: increase of a motivation, raise of self-estimation, increase of courage to take a non-routine job on a given post. This forces the appropriate design of those elements of the competence assessment system that can directly affect the desired behaviour of management.

3. PLACE OF ASSESSMENT IN THE PROCESS OF MANAGERIAL COMPETENCE MANAGEMENT

Human resource management based on competency means that the competencies are the basis for the functioning of the entire system of human resource management. Competencies are the decisive factor for the processes of recruitment, selection, adaptation, development, evaluation and reward (Dubois and Rothwell 2008, p. 53). Competencies are a tool, which integrate all HR processes, which leads to the consistent implementation and growth of synergies effects in personnel actions. Competencies are the foundation of the whole system of human resource management, precisely directing all HR processes on the implementation strategy of the organization, thus gaining or maintaining a strong competitive position by constant improvement of the quality level and innovation of offered products and level of customer service.

Use of a competence model in human resource management system leads to a number of integrated cooperative targets, which include (Oleksyn 2006, p. 189; Rostkowski and Szczęśna, 2003, p. 5-6):

- integration of HRM tools by basing them on the same elements – competence,
- creating an effective system of reporting of human resource situation in the organization, in order to suit the competence of employees to the needs of the organization,
- test of real competence of employees and job applicants in terms of selection for the work,
- optimizing the ratio of investment in staff development against the effects;
- preparation of employees to meet current or future jobs;
- building of transparent professional development paths;
- easier introduction of organizational transformations and increase of the organization's ability to respond quickly to new market demands by increase of the staff flexibility,
- increase of the satisfaction level of employees and their position on the labor market;
- increase of the organization value by increasing the value of human capital.

Based on human resources management system on competence requires the development of competence model, which takes into account the specificities of the company, and then adapt the model to the needs of individual HR processes.

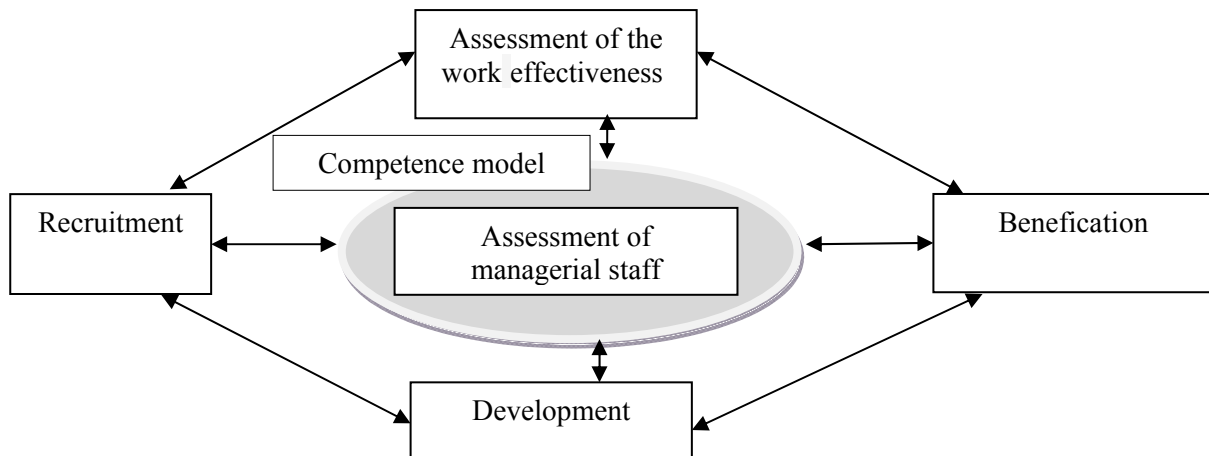
It should be noted, that the successful implementation of HR processes, forces their reliance on the results of the assessment process. The process of the competence assessment is a central element of a competence management system, it also integrates with each element of the other HR processes (Figure 1). The results of the assessment process can help to identify those areas where there should take place development or improvement of the competence of the manager, provide the basis for decisions about promotion, or are used to determine an appropriate salary.

In the evaluation process a competence model is a standard reference system, to which are compared real - actual competence of managers. From the results of this comparison depend:

- the employment opportunities of the best managers within the organization, i.e. those whose current level of competence coincides the most with the exemplary level of competence,
-
- career paths, including decisions about promotions, determination of directions of development of competence in order to match current and future needs of the organization,

- the development of appropriate wage relationships, and consequently the amount of fixed and mobile components of received remuneration.

Figure1. Place of assessment in the management system over managerial staff competence



Source: own elaboration

The reliance of all HR processes on the results of the same action increases the interdependencies between them, and clearly sets the direction for the development of management competencies in accordance with the current and future objectives of the organization and market requirements.

3.1. RECRUITMENT PROCESS

In the recruitment process competence system allows for the employment of manager, selected basing on an assessment of competence carried out in terms of future roles and responsibilities. The candidate is perceived as real or potential "carrier" of competence desirable to carry out tasks on a given position (Filipowicz 2004, p. 108). The result of the recruitment process is a selection of a candidate who is able to demonstrate that he/she can achieve the required results at work and can do so in a manner deemed appropriate by the organization. Competencies are becoming a standard reference system that allows you to determine the degree of convergence of the actions and behaviour of candidates with exemplary behaviour described in the competence model (Whiddett and Hollyforde 2003, p. 208).

As noted by T. Oleksyn between the competencies possessed and expected there can be three types of relationships: the candidates have the capacity to meet accurately the needs, below expectations or far exceeding the specified level of requirements. The best solution in terms of recruitment is to select those whose level of competence exactly meets expectations, or those whose level of competence is slightly lower than required. This creates a stronger incentive to develop and improve their competence, than in the case, when competencies far exceed established requirements (Oleksyn 1997, p. 47).

The implementation of the recruitment process based on competencies requires to develop competency models for managerial positions. Behavioural assessment criteria that are competencies used in the recruitment process indicate which behaviour determine effective work on managerial positions. Then, with a use of the tools ensuring that the assessed person can cope with the tasks assigned to the position there is applied a diagnosis of competence

possessed by candidates applying for a particular jobs. Successful implementation of the recruitment process based on competence requires a variety of recruitment tools. Analysis of the application documents and interview is treated as a pre-selection stage, which begins the entire procedure. In examining the candidate's suitability and possessed competence there are applied the following methods: the behavioural interview, psychological and competency tests, allowing to develop a personality profile of the candidate and his/her professional skills. In addition, there are used the situational tests and tasks, as well as the *assessment center* method which enables to assess the candidate's skills in carrying out activities specific to the particular job (Moczyłowska, 2008, p. 143). The final recruitment is based on a comparison of competence profile possessed by the candidates, determined on the basis of various sources of information, with the exemplary competence profile desired on a given position.

Summarizing, to the benefits resulting from the reliance of recruitment on competence one may include (Wood and Payne, 2006, p. 35):

- obtainment of more accurate assessment of capacity of the candidate and his/her suitability for a specific workstation, providing of a better match between skills and interests of the candidate to the requirements of the job;
- possibility to extract skills and attributes in the candidate profile, which facilitates the adjustment of candidate's development plans to its real needs, while avoiding the issuance by the evaluators rash judgments about the candidates and evaluating them based on features that are not relevant to the workplace;
- use of various recruiting tools, such as application forms, interviews, tests, *assessment center*.

3.2. PROCESS OF EFFECTIVENESS' ASSESSMENT

Basing the effectiveness' evaluation process on competence provides information on degree of use of possessed competence in achieving the goals and tasks, and allows to assess the quality of activities performed by managers. At the same time as the best managers are considered to be those who achieve the objectives desired by the company while they do it in a manner consistent with existing labor standards and adopted system of values. Therefore, Hollyforde and Whiddett postulate that the evaluation process should be based not only on competence, thus on behavioural criteria (reporting on how the tasks and objectives are fulfilled), but also taking into account the effectiveness criteria and analysis of factors affecting the level of work effects achieved (Hollyforde and Whiddett, 2003, p. 147-148).

In the process of assessing the information about the behaviour, actions and outcomes of work performed by managers, which serve to assess the competence, one may derive it from many sources, for example: from subordinates, colleagues, superiors and customers and by using different methods: competency models, management by objectives and performance, the Balanced Scorecard, a code of ethics. Then, deepen analysis of obtained information on the results and quality of work requires hard discussion with the manager not only about what he/she achieved, but also about what impact on the results had different external factors, such as personal or organizational. Moreover, the formulation of a fair and equitable assessment based on competence requires the ability to link the identified behaviour with the competence models, then a proper interpretation of obtained results.

3.3. THE REMUNERATION PROCESS

The consequence of the development of human resource management based on competence is a better link between remuneration and competence. In this situation, one of the main

determinants of wage levels, in addition to the occupied management level and the effectiveness of performed task is the degree of competence adoption (Filipowicz, 2004, p. 170-172). Borkowska presents a broad matter of the relationship between competence and compensation system. The author identifies five methods of competence-wage linkages: competence, as a basis for job evaluation, classification of personal competence, target remuneration rates, pay rise dependent on achieved behavioural objectives, wage increases dependent on changes in the assessed level of competence (Borkowska, 2004, p. 299-303). Analysis of the mentioned methods of competence-wage linkages indicates that the results of the assessment of competence may constitute the basis for the development of fixed and mobile parts of salaries, which may serve to determine the relationship and decide on the amount of premium.

The main way to determine the proper relationships within the basic salary between job positions is a job evaluation, which can be replaced by a valuation of competence. However, the goals of evaluating the competence remain the same as the objectives of job evaluation, namely to serve to determine the proper wage relationship. The evaluation procedure are also close to.

However, Ziębicki identifies four key differences between valuation of position and valuation of competence (Ziębicki, 2006, p. 571-572):

- 1) the assessment range- in the case of position evaluation there is assessed the difficulty of work, which consists of the requirements and burdens associated with it. However, in evaluating the competence, the assessed objects are only owned skills and personal characteristics of employees. This is reflected above all in the selection of assessment criteria;
- 2) the assessment nature- in the traditional approach the subject of evaluation are job positions (static valuation), and in evaluating the competence, the assessment relates to the actual characteristics of individual employees (dynamic valuation);
- 3) the manner how to define the criteria - in the selection of competence evaluation criteria there is quite high flexibility, which means that every time there is created a set of distinct criteria, which constitute an attempt to adjust them to the held strategy and business development goals. Analytical job evaluation is based on using a highly standardized criteria, which are the subject of many practical applications;
- 4) number of classification criteria – in the pay charts which are created based on the analytical job evaluation generally exists a considerable number of classification (from 14 to 17 in the case of large organizations), designating a hierarchy of positions, with a low wage brackets span. Pay charts projected on bases of results of competence evaluation tend to have significantly reduced number of classification categories and with high wage brackets span. The advantage of such solution is very high flexibility of the remuneration of individual workers. In general, supervisors have unlimited opportunities to raise salaries of top staff members - who enhance their skills, gaining better results.

The preservice of rationality of remuneration system used which is based on competencies requires in case of managers the use of different methods of shaping the internal structure of remuneration. It seems that the best manner which takes into account the specificity of hiring managers is a determination of the amount of basic salary under management or directorial contracts, while the level of the movable part of remuneration depending on the work should be established by using a competency assessment based on competence model and management techniques, by objectives and the strategic scorecard.

3.4. THE DEVELOPMENT PROCESS

The purpose of management development process based on competence is to achieve a state in which the competence of managers will match the current and potential needs of both the company and manager. The connection of the development activities with competence is carried out in three stages: 1) diagnosis of developmental needs – identified competence gaps, 2) implementation of the improvement process – minimization of the competence gap (by modifying the exemplary model of competence, the development of real competence or harmonization of real competence with the exemplary one) (Pocztowski and Miś, 2000, p. 7), 3) evolution of effectiveness and efficiency of undertaken development activities.

Basing the development process on competence makes it possible to precisely define training needs strict selection of training issues, which guarantees the acquisition of those skills that are needed to fully acquire the required competencies. In turn the assessment of the effectiveness of undertaken development activities conducted with a use of the models and competency profiles allows for the precise measurement of changes in behaviour, skills, attitudes and knowledge of managers.

However, as rightly observed by Ziębicki the use of common methods for competence improvement is usually temporal and is implemented in the form of external training and as a result of low efficiency. Significantly, better results are achieved through continuous processes of worker's improvement, combined with the current implementation of tasks (Ziębicki, 2006, p. 569). This approach requires the use of modern methods of improvement, which belong to the coaching and mentoring.

Competence management is a useful tool for planning career paths and creating lists of successors (Filipowicz, 2004, p. 155-170). The competence management system allows to start the process of building a career already during the recruitment, especially if the person has some competence excess, which may indicate his/her suitability to take certain positions, sometimes other than those for which they initially applied for. Elaboration of competency models for all positions in the company can identify the relationship between them, for the required range of knowledge, skills and attitudes and leads to the determination of the succession line. While the diagnosis of the level of competence of potential successors allows telling who is ready to take new positions, and who requires additional development activities. It is similar in case of promotion planning. The implementation of solutions system helps to determine the best candidate for promotion to the particular post, the degree of readiness for promotion, as well as the current level of their competence.

4. CONCLUSION

Summarizing, to the above-mentioned considerations, one may add that the implementation of the assessment system into company's practice requires identification of its core competence, strategy and organizational culture. In light of these findings, it is possible to develop a competency model for management positions and the appointment of the assessment criteria of particular competence specified in the model. Next step of implementation process is associated with conducting the audit of the competence and determination of level of aggregate assessment of competency for each manager who is evaluated. Subsequently, the audit results should be analyzed in detail, leading up to the objective personnel decisions.

It should be emphasized that the implementation of a managerial competence assessment system into the firm's practice is to obtain tangible benefits. The system provides identification of the level of compliance by the management of competencies essential for the efficient, effective and ethical business processes. The results of the system will serve to the

proper implementation of HR processes, the precise definition of the developmental needs of individual managers, insurance of objective decisions in the areas of recruitment, match of training, bonus, promotion or dismissal of managers. Moreover, the system will improve the awareness of managers in terms of expectations laid against their behaviour and qualification by indication of the information on the level of competence gap. These activities will contribute to increase of the motivation of managers to further self-development in the context of corporate objectives and individual needs of executives.

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COMPANY MANAGEMENT IN THE KNOWLEDGE-BASED ECONOMY IN MALOPOLSKA

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Summary: This paper presents how knowledge-based management and most of all human capital management raise effectiveness and competitiveness of Polish enterprises of food industry, which was observed especially during our country's full accession to the European Union. Main aim of the study was to analyze how the knowledge resources and, above all, the quality of human capital in food businesses may affect their development, organization, and its usability in managing the enterprise, and whether management of resources is proper. Conclusions of the research has been recognized and supported by previously synthetically conducted: query in the literature sources, analysis of statistical data, a questionnaire survey in selected food companies, and the results presented here in tabular form. Conducted research allowed to draw the following conclusions: 1. Company management is still regarded as sufficient, both by management and employees, who say they see no need for changes in this area. 2. Current strategies and visions of enterprises are well known by the management and workers, what should lead to an increase in enterprise competitiveness, not only in local markets, but also international. 3. In food industry enterprises in the Malopolska province modernization of machinery, placing and management of new products and services are rare action. 4. The respondents, both the first and second stage of research, highly evaluated the level of quality of qualifications and skills of employees.

Keywords: knowledge management, innovation, competitiveness, food

1. INTRODUCTION

In the present article, the author will try to determine the extent to which knowledge management, and especially human capital, influence improvement in the competitiveness of Polish enterprises of food industry, which has been observed especially during our country's full accession to the European Union. During the study the hypothesis, assuming that this period contributed significantly to the competitiveness of the food industry, which at certain intervals move through the stages of development, drawing on its strengths and emerging opportunities was tested. The main purpose of the article is the identification of business management, assessment of workers' knowledge and the quality of human capital, which translates into an increase in the level of competitiveness of the food industry in Poland. The need to identify these dependencies is due to the permanent development of this industry and the recapitalization of enterprises by the growth and development of the key factors leading to the creation of a higher position on the local, national and international markets. The importance of knowledge is becoming increasingly popular in academic economics. It determines the essence of civilization development, and this translates into the development of enterprises. Macrostructures emerging in today's society (interchangeable terms: the network society, knowledge society, digital society, post-industrial society), and economic changes operating in a parallel sense, transformations put knowledge in a central location in contribution to the development of societies and their economies and companies operating (Firlej, 2012). According to the *Encyclopaedia of Management*, "knowledge management" can be defined as all activities aimed at identification, preservation, propagation, use of explicit and hidden knowledge of staff to improve the efficiency and effectiveness of

employees. Some economists believe that knowledge management can be regarded only instrumentally, as a set of procedures and technical means to ensure the transfer of personal experience and knowledge in an organization to the database and to provide storage, and distribution of needed information. But at a deeper consideration of what should be considered knowledge in the humanistic aspects, levels of motivation, and sociological aspects of social intelligence, communicative competence are to be included (http://mfiles.pl/pl/index.php/Zarz%C4%85dzanie_wiedz%C4%85). The current form of the knowledge economy increasingly requires research into the social sciences, mainly to strengthen the activities of individual entrepreneurs. The idea of knowledge-based economy in the context of modern enterprises, indicates the basic source of their competitive advantages, and directs the strategic development activities (Cyrek, 2007). In reviewing the definition of the knowledge economy it is assumed that its development results from four pillars that form: the economic system - institutional, educated and competent people, efficient and productive innovation system manifesting itself in creating pro-innovative environment and the optimum use of ICT technology for mutual communication.

2. THE PURPOSE, METHODOLOGY AND RESEARCH AREA

The proposed study was to demonstrate that knowledge, information and quality, are reinforcing success factors in companies and the use of modern techniques in their current performance in an organized manner helps to leverage their existing skills and develop the skills and capital. Conclusions of the study is entered synthetically and based on previously carried out: a query in literature sources, analysis of statistical data, survey questionnaire in selected enterprises of food industry, and the results presented in graphical (tabular) form. The main aim of the study was analysis of how knowledge resources, and especially the quality of human capital in food enterprises may affect their development, organization, and usability in managing the enterprise, and whether resource management is correct. Studies were to capture the role of knowledge as the main factor affecting the development of enterprises. Also other factors affecting the competitiveness and directly related with knowledge, such as: reduced cost, increased product and service innovation, growth efficiency, improved customer relations, human capital development, social responsibility of organizations and preservation of the ethical aspects of business have been determined. Empirical studies have been carried out for comparison in 2007 (289 companies) and 2011 (29 companies), in companies located in the Malopolska province, divided by selected branches of the agro – food industry. In order to identify the organizational status of food enterprises, most of agro-food industry branches were selected, and the choice was intentional. In the first stage of the study companies from the grain (30), confectionery (96), dairy (36), and the fruit –vegetable industry (78) and the meat industry (49) were selected. In the second stage, the number of the companies was reduced, but the percentage of their share in the total number of companies was remained. From the grain industry three companies were examined, confectionery 10, four from dairy industry, 8 from fruit – vegetable industry and 4 from meat industry. The number of companies studied was different because of the large span of their occurrence in the designated fields. Research respondents were business owners or managers. Critical determinants for the degree of development of enterprises in selected industries of agro - food industry were external, internal, system and organizational factors that to a greater or lesser extent, determine their functioning. Many of these factors are combined with each other and at the same time associated with the development of agro - food industry. The study of these factors provided information designating the relationship of existing and future businesses, the environmental constraints as exogenous variables. The study started in 2007 to present the current state and the determinants of functioning of enterprises in the three years period after

the Polish accession to European Union and the year 2011, in which eight years have passed since that event. The research results can provide evidence of competitiveness diagnosis of the agro - food industry in the European Union market.

3. HUMAN CAPITAL IN FOOD INDUSTRY COMPANIES - THE THEORETICAL BASICS AND RESEARCH RESULTS

Food industry in Poland has a heterogeneous structure, which in the transition of our economy, was subjected to change under the influence of multi-way reform, restructuring and privatization. Extremely important was to capture in the study their impact on the knowledge and innovation. Earlier, in the centrally planned economy, agro - food industry was dominated by units of the socialized economy, when the state-owned enterprises have had the leadership and the monopoly. Apart from these, many small and medium enterprises operated on the principles of cooperative and they were associated in Dairy Cooperatives, Cooperative Associations in Gardening and Beekeeping, Agricultural Production Cooperatives, Communal Cooperatives "Peasant Self-Help," Consumers Cooperatives, Cooperative Work and Cooperative Invalids and Industry in the State Field. Many state-owned farms were involved in the agro - food processing, which was one of their primary duties.

Food business operators still are forced to adapt their activities in relation to the changing market situation. They can be marked as "learning enterprises" because they create change and manage it, and also acquire skills to adapt to change (Wyrzykowska, 2004). In order to implement positive changes, these companies are developing strategies that subordinate them. The concept of a strategy developed by Mintzberg (1975), in which the author presented in the form of "5P-mix" (it means that it enables the implementation of specific objectives (*plan*), the activity in a hostile, turbulent environment (*ploy*), aiming to consolidate the relevant values and standards (*pattern*), to deal in the vicinity of a specific location (*position*) and makes it possible to predict (*perspective*), what might happen in the environment). It is useful to implement in currently operating companies of this industry. These elements are partly independent of man, our skills and qualifications, but we cannot assume that they are *constant*, because we can influence them. Important factors are the area of knowledge, its management methods, skills, competencies and qualifications of an employee, which is a set of elements of the overall intellectual business capital and contributes to competitive advantage.

The strategy implemented by the enterprise organizes the tasks, outlines the resource use and sets the behaviour of the organization in the environment, use of opportunities and threats in order to effectively achieve results according to entrepreneurs' intentions (Machaczka, 1999). Business strategic competence as evidenced by resources held in intellectual capital have a significant relationship with the intensity of the development of entrepreneurship, which in agribusiness, and especially in the food industry, means strengthened ties between the various branches of food production (Firlej, 1999). In today's world, when we meet with the penetration element of globalization to the realm of agribusiness in the current functioning of companies knowledge management concept should be used, although it is connected with high cost, but may be necessary and prospectively profitable investment in the development of each entity in the economic (Firlej, 2008).

In the literature, a distinction deserves attention by Fiedor growth theory, which says that the long-term growth of both the world economy and the individual countries is determined by investments in human capital and innovation, and the use of technology and capital transfer (Klepacki, 2000). Particularly important roles to play in this area have knowledge and research, and also higher education and economic innovation, which strong promoters are

Nobel Prize laureates: G. Becker and T. Schultz. Economic integration of the whole sphere of agro-business is to prepare to compete in the single European market and fulfil all the conditions of European Law (Firlej, 2003).

The proper gain from the outside or to generate the necessary competencies by own strategic managers translates directly to competitiveness and growth (Firlej, 2005). The most important element of intellectual capital is human capital, which consists of fundamental values, such as knowledge, skills and qualifications, the mutual relations between them and its potential for development. Market success of the food industry is possible to achieve by the proper implementation of the strategy, which has become indispensable in the case of large companies. Please note that strategies are determined by environmental conditions and internal factors that directly influence the decisions made (Firlej, 2004).

In this study aspects of business management of food industry in the knowledge economy were presented, and to show the company management, the degree of knowledge of the vision by the management and staff, opportunities and progress in implementing the strategy, how to succeed, the participation of employees in problem solving, work on the search for new organizational, technical and technological level and trends in employment in recent months, using the services of the Labour Office and subsidized employment, the quality of the qualifications, method and effectiveness of recruitment employed were also presented. The literature shows the view that managers should trust their employees and encourage them to be more creative and to delegate more power to them rather than control them (Judge et al., 1997).

The study began by assessing company management (Table 1 and 2) and it was their subjective judgment by management. Most often, management was assessed as "very good" by 30.23% of companies, and as "good" by 59%. As an "average" it was rated by 10.09% and "poor" only by 0.68% of managers. According to industry is difficult to say something about the best of them, because as "very good" the highest percentage received a company of grain industry (37.93%), and in the case of companies rated as "good" meat industry is faring the best (67, 35%). The weakest sector by far was the confectionery (2.11%) and the fruit - vegetable industry company (1.30%). In their statements, respondents poorly evaluated public *relations* run by their companies. This situation changed in favour in four years after the first study. Although company management was rated as "very good" by 3 percentage points less respondents, it was indicated "good" by 9 percentage points more respondents, which gave a total of more than 95% satisfied managers. As an "average" it was indicated by just 4.5% of respondents, and the "poor" has not been noticed. In cross-industry, the situation was like in the previous study period.

Table 1. Subjective assessment of the management company by managers in 2007

Management company	Grain Industry		Confectionery Industry		Dairy Industry		Fruit and Vegetable Industry		Meat Industry		Total
	n	%	n	%	n	%	n	%	n	%	
Very good	11	37.93	22	23.41	11	30.56	23	29.87	14	28.57	30.23
Good	14	48.28	57	60.65	21	58.33	47	61.04	33	67.35	59
Average	4	13.79	13	13.83	4	11.11	6	7.79	2	4.08	10.09
Poor	-	-	2	2.11	-	-	1	1.3	-	-	0.68
TOTAL:	29	100	94	100	36	100	77	100	49	100	100

Source: own study based on surveys.

Table 2. Subjective assessment of the management company by managers in 2011

Management company	Grain Industry		Confectionery Industry		Dairy Industry		Fruit and Vegetable Industry		Meat Industry		Total
	n	%	n	%	n	%	n	%	n	%	%
Very good	1	33.33	3	30.00	1	25.00	2	25.00	1	25.00	27.66
Good	2	66.66	6	60.00	3	75.00	5	62.50	3	75.00	67.83
Average	-	-	1	10.00	0	-	1	12.50	-	-	4.50
Poor	-	-	-	-	-	-	-	-	-	-	-
TOTAL:	3	100	10	100	4	100	8	100	4	100	100

Source: own study based on surveys.

Then the study was to assess the extent of knowledge of the company vision by employees. Knowledge was assessed in 2007 as “high” by 11.54% of respondents, while most of them found that the degree of their knowledge as “good” (59.87%) and “medium” (23.62%). Only 4.96% of employees were found to be those who know little about vision of the company. In cross-industry comparison, best-rated companies were from dairy industry (20.59%) and fruit – vegetable industry (35.14%), and the worst-rated were grain industry companies (13.33%). In this case, also the situation has changed in favour in 2011. Management in companies was rated as “very good” by 9.5% respondents and as “good” by 77%, which gave a total of 86.5%. The “average” was rated by only 13,5% of respondents, and the “poor” were not noticed. In cross-industry, the situation was very good in the fruit-vegetable industry and meat industry, and less good in the confectionery industry.

Table 3. Subjective assessment of the degree of knowledge of the vision of the company by employees in 2007

Evaluation of the knowledge of vision	Grain Industry		Confectionery Industry		Dairy Industry		Fruit and Vegetable Industry		Meat Industry		Total
	n	%	n	%	n	%	n	%	n	%	%
Very good	1	3.33	10	10.53	7	20.59	14	18.92	2	4.35	11.54
Good	16	53.33	56	58.96	19	55.88	44	59.46	33	71.74	59.87
Average	9	30	24	25.25	8	23.53	13	17.57	10	21.74	23.62
Poor	4	13.33	5	5.26	-	-	3	4.05	1	2.17	4.96
TOTAL:	30	100	95	100	34	100	74	100	46	100	100

Source: own study based on surveys.

Table 4. Subjective assessment of the knowledge vision of the company by employees in 2011.

Evaluation of the knowledge of vision	Grain Industry		Confectionery Industry		Dairy Industry		Fruit and Vegetable Industry		Meat Industry		Total
	n	%	n	%	n	%	n	%	n	%	%
Very good			1	10.00	1	25.00	1	12,50	-	-	9.5
Good	3	100	6	60.00	3	75.00	6	75,0 0	3	75.00	77.00
Average	-	-	3	30.00	-	-	1	12.50	1	25.00	13.5
Poor	-	-	-	-	-	-	-	-	-	-	-
TOTAL:	3	100	10	100	4	100	8	100	4	100	100

Source: own study based on surveys.

Group of questions regarding issues shaping the quality of human capital in the surveyed companies was the next part of the study (Tables 5 and 6). In 2007, respondents mostly stated that they are largely at the level of “good” (69.92%) and “very good” (17.73%), by 11.61% of companies this level was assessed as “sufficient” and “insufficient by 0.74%. Best assessment of their employees was given by confectionery industry (25%) and meat industry (20.83%), and the worst fruit - vegetable industry (2.7%). In 2011, the percentage of “very good” companies increased to 28.16%, and the number of “good” companies decreased to 52.84%. The number of companies that has had a “sufficient” level increased to 19%. In terms of industry - best quality level of qualifications and skills of employees has been evaluated in the dairy industry, and the worst in the meat industry.

Table 5. Assessment of the quality of qualifications and skills of employees in 2007

Evaluation of the possibility	Grain Industry		Confectionery Industry		Dairy Industry		Fruit and Vegetable Industry		Meat Industry		Total %
	n	%	n	%	n	%	n	%	n	%	
Very good	3	10.00	24	25.00	5	13.89	14	18.92	10	20.83	17.73
Good	23	76.67	61	63.54	29	80.56	46	62.16	32	66.67	69.92
Sufficient	4	13.33	10	10.42	2	5.56	12	16.22	6	12.50	11.61
Unsatisfactory	-	-	1	1.04	-	-	2	2.70	-	-	0.74
TOTAL:	30	100	96	100	36	100	74	100	48	100	100

Source: own study based on surveys.

Table 6. Assessment of the quality of qualifications and skills of employees in 2011

Evaluation of the possibility	Grain Industry		Confectionery Industry		Dairy Industry		Fruit and Vegetable Industry		Meat Industry		Total %
	n	%	n	%	n	%	n	%	n	%	
Very good	1	33.33	2	20.00	2	50.00	1	12.5	1	25.00	28.16
Good	2	66.66	6	60.00	2	50.00	5	62.50	1	25.00	52,8 4
Sufficient	-	-	2	20.00	-	-	2	25.00	2	50.00	19.00
Unsatisfactory	-	-	-	-	-	-	-	-	-	-	-
TOTAL:	3	100	10	100	4	100	8	100	4	100	100

Source: own study based on surveys.

Summing up the studies, it can be stated that the organizational conditions of functioning businesses, including management, the degree of knowledge of the company vision, capabilities and the level of implementation of the adopted strategy and the quality of qualifications and skills of employees are considered priorities. Businesses properly assessed production process by the use of their powers and abilities, and actually could properly use skills and abilities of employees to seek new solutions for organizational, technical and technological solutions.

4. SUMMARY

Summarizing the above discussion of theoretical and empirical nature in the area of management and enterprises of food industry, in a knowledge-based economy, it is noted that they still need to adapt their business to the rapidly changing market situation, and are forced to acquire new skills and change management. Current position of Polish food companies in

the world markets shows their rightful place and meaning of market rules. Research hypothesis, assuming that the post-accession period contributed significantly to the competitiveness of the food industry was verified positively, because they found a steady increase in the level of management and the quality of human capital. On the other hand, presented study has helped to develop the following conclusions:

1. The management in company is still considered to be sufficient, by both managers and workers, who say they cannot see the needs for changes in this area. The respondents saw no need for strengthening of management methods in their enterprise, which means they have fulfilled their expectations;
2. Current strategies and visions of enterprises are well known to the managers and employees, what should lead to an increase in their competitiveness, not only in local markets, but also international;
3. In the enterprises of the agro - food in the Malopolska province, modernization of machinery, placing and management of new products and services are rare actions;
4. Respondents highly evaluated the level of quality of qualifications and skills of employees, which took place in both the first and second stage of the study. It is worth noting that the quality of human capital is a priority to entrepreneurs, believing that it determines the future structure of the company and the level of its development.

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DEVELOPING CORE COMPETENCIES OF SME MANAGERS USING HEUTAGOGY PRINCIPLES

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Summary: What are the most effective ways of educating today's young SME managers and entrepreneurs? How can a formal tertiary education institution become a good supporter and partner in developing the most important entrepreneurial skills for managing modern SMEs in the environment of global competition? In today's world of constant hunting down for innovation it is getting obvious that learning and developing of entrepreneurial skills at the early stage is becoming vital for most new SME managers. Czech tertiary institutions are often criticized for not meeting the increasing market needs for changing knowledge and skills especially in SME management. Effective development of entrepreneurial skills requires changes in approach toward traditional learning from both sides – from educator and from students as well. Heutagogy was developed and introduced in 1999 as a learner-centered and self-determined concept, which encourages students to become more proactive during their learning process. With information more easily accessible and students capable of using modern technologies, the classes are becoming more a place of sharing and discussing rather than traditional knowledge transferring. This is also accelerated by the fact that many students of entrepreneurship and SME management often start their working career while still studying. First experience with using principles of heutagogy in entrepreneurship and SME management education shows very promising direction.

Keywords: entrepreneurship, SMEs, heutagogy, learner-centered development

1. EDUCATING FUTURE ENTREPRENEURS

World needs more entrepreneurs and Europe needs them especially. Czech Republic is not an exception. In the global market environment with strengthening competition the need for innovation is ever present and demand for people with entrepreneurial competencies is increasing. Besides traditional entrepreneurs who can be found mainly in small and medium business environment, there can be noticed significantly increasing demand for corporate entrepreneurs from large corporations. Increasing focus on talent management is one of the signs, which confirm this trend. Surveys suggest that profiles and core competencies of talents in many corporations are very similar to profiles and characteristics of corporate entrepreneurs, often also called intrapreneurs.

1.1 CURRENT EDUCATION SYSTEM AND DEVELOPMENT OF ENTREPRENEURS

As the demand for people with developed entrepreneurial competencies is rising in both SME's and corporate world, it created a natural demand for education and developing both future entrepreneur and intrapreneurs. Today's college and university students, called Millennials, grew up in very different environment to previous generation. They are used to learn from different sources and they are more comfortable with computers, smart phones or tablets more than pen and paper.

Students interested in studying entrepreneurship are often those with a significant potential of entrepreneurial competencies development. Many of those students have work experience often from family business environment; some of them are founders and owners of their own business. Those young people express in their feedbacks urgent need for more practical, more interactive and “hand-on” style of education that would be immediately transformed into their existing projects. This is one of the key characteristics of most tertiary student needs today in the Czech Republic, but students of entrepreneurship find this need critical. It can have a fatal influence on their business projects and determine their success.

1.2 CHALLENGES IN ENTREPRENEURIAL EDUCATION

To adapt the existing entrepreneurial education for modern business environment, universities and colleges face challenges which they do not have previous experience with. Those challenges can be divided into three main categories:

- challenges for educators
- challenges for students
- challenges for system

1.2.1. Challenges for educators

New techniques and new media need to be implemented in current education programs in order to truly support development of entrepreneurial competencies. This requires educators to adapt and develop new competencies as well. The positive thing is that more university professors and assistants already have found innovative ways to bring new media into the classrooms however it is still very much dependent of their personal passion and enthusiasm for new technologies. McLoughlin & Lee (2010) identify in their report specific affordances of social media – connections and social rapport, collaboration (information finding and sharing), learner-generated content, and accumulation of knowledge and information – that contribute to the cognitive development of students.

1.2.2. Challenges for students

To be able to succeed in the real world of entrepreneurship, students need to learn broader and more complex set of competencies. They need to participate in education more actively and besides gaining knowledge to be also able to develop a portfolio of entrepreneurial skills and attitudes. This requires significant change in a way how students contribute to classes, interact with educators and among themselves. The skills of using of new tools like social media are also required, however researches show that this is less significant challenge for students than finding a proactive attitude towards learning. Blaschke, Porto, & Kurtz (2010), in their recent research confirm that, from a student perspective, the active use of social media may increase interaction levels (student-student, student-instructor, and student-content) and promote the development of cognitive and meta-cognitive learning skills, such as reflection, critical thinking, construction of knowledge, and understanding of one’s individual learning process.

1.2.3. Challenges for system

The system of educating future entrepreneurs also needs to be adapted to new requirements from the market. Although educational technology has been usually slow to catch up, some changes have already started to be implemented. For example according to the Pearson Social Media in Higher Education Survey (2010), over 80% of college faculty is using social media, with 52% of faculty using social media in the classroom. This research was using a sample of

939 individuals from US higher education institutions. This looks like a very good result, however the survey points out that the use of social media is primarily passive. Only about 10% of faculty uses social media in an active way. I believe that those numbers could be similar or even lower in the Czech Republic. The absence of appropriate system and guidelines together with long-term lack of adequate investment in education limits usage of modern ICT tools in supporting entrepreneurial development.

2. HEUTAGOGY AND PERSONAL DEVELOPMENT

The changes we have been witnessing in the last decade in HR development are revolutionary. Since we live in a society which has made a high technical progress and information is now within a reach for most population in our country, advanced learning according to many education professionals should be more self-determined: it means that the student determines what and how learning should take place. With the term derived from the Greek word for “self”; with “agogos” meaning “leading” and based on theories of self-determined learning, the term heutagogy was coined by Hase and Kenyon in the late 1990’s. Heutagogy represents the concept of truly self-determined learning. Recent researches suggest that heutagogy could bring appropriate forms of learning to the needs of current students of entrepreneurship.

2.1. HEUTAGOGY, ITS PRINCIPLES AND BENEFITS

According to Hase (2002) heutagogical approach recognizes the need for flexibility in the learning process where the educator provides resources but the learner designs the curriculum, not just the learning process, by negotiating the learning. The focus is mainly on development of individual capability, individualized learning and independent learning. Ford (1997) argues that learning should be more “knowledge sharing” rather than “knowledge hoarding”. Hase confirms that heutagogy can have a significant potential future of learning when knowing how to learn will be a fundamental skill given the pace of innovation and the changing structure of communities and workplaces.

Many discoveries about motivation to learn were made by Rogers (1969). He suggests that people want to learn and have a natural inclination to do so throughout their life. He based his student-centered approach on five key hypotheses:

- We cannot teach another person directly: we can only facilitate learning;
- People learn significantly only those things that they perceive as being involved in the maintenance or enhancement of the structure of self;
- Experience which if assimilated would involve a change in the organization of self tends to be resisted through denial or distortion of symbolization, and the structure and organization of self appear to become more rigid under threat;
- Experience which is perceived as inconsistent with the self can only be assimilated if the current organization of self is relaxed and expanded to include it; and
- The educational system which most effectively promotes significant learning is one in which threat to the self, as learner, is reduced to a minimum.

Being able to learn according to heutagogical principles would have also an impact on corporations, HR work in management and employee development area specifically. The self-determined approach would have a positive effect on training effectiveness which would result in cost savings in training and development budget.

2.2. APPLICATION OF HEUTAGOGY IN TERTIARY EDUCATION

Research on motivation combined with heutagogical theory would suggest that there is a need to develop an understanding of how to use and develop existing potential of employees through self-determined learning (Graves, 1993, Hase 2002). According to Hase (2002) today's world is no place for the inflexible, the unprepared, and the ostrich with head in sand, and this applies to organizations as well as individuals. He believes that capable people are more likely to be able to deal effectively with the turbulent environment in which they live by possessing a capacity centered on self-efficacy, knowing how to learn, creativity, the ability to use competencies in novel as well as familiar situations and working with others. Therefore heutagogy should be applied soon in your people's life and it seems that tertiary education could take the role of it.

2.3. COACHING AS A KEY HEUTAGOGICAL TOOL

Heutagogy was first introduced in 1999 (Hase and Kenyon). Establishing well in Australia, heutagogy is still relatively unknown in Central and Eastern Europe, the Czech Republic respectively. Based on this fact its implementation can be considered as relatively difficult in official education providing institutions. On the other hand one part of heutagogy is recently booming and is in high demand both from companies and individuals, students included. This is coaching, a specific way of development dealing with human potential and motivation as it defined by J. Whitmore.

Therefore coaching could become a useful heutagogical tool and entry initiative for implementing heutagogical principles in tertiary education programs. In the Czech Republic coaching has become very popular way of management development especially after 2005. Most of the large corporations are currently using external coaches for their executives with the average length of coaching programs consisting of 6-12 months (Barton, 2012). Based on its common measurable successful outcomes many of those corporations are lately investing into their internal coaches development to be able to introduce coaching to wider target group. Coaching culture is becoming a desired target.

Coaching is also used as a powerful management style especially in competitive industries with highly skilled professionals. Examples are financial sectors, telecommunications and IT. In 2002 a survey of HR professionals involved in organizations, was conducted by the Hay Group in a paper entitled "The Future of Executive Coaching." Here are some key findings from the study:

Table. 1: Hay survey outcomes

	Participants	Stakeholder observations
Positive Reaction to coaching	86%	74%
Behavioural Change	73%	54%
ROI increase	75%	75%

How coaching was used:

Enhancing interpersonal skills	35%
Enhancing management skills	18%
Enhancing business agility/credibility	15%
Enhancing leadership skills	14%
Fostering personal growth	12%

From the data above it can be indicated that coaching in corporations is mainly used for skills development but it deals with motivation and attitudes as well by its definition. In tertiary institutions coaching has been recently introduced and it has been gaining high level of attention from students. The results of its implementation into first programs are suggesting that using coaching brings those benefits:

- Students say they are able to focus better on the discussed topics and gain more knowledge out of their learning
- Students evaluate themselves being more motivated and disciplined with time management
- Students improve soft skills while learning (especially interpersonal skills)
- Learning happens through many resources and students are actively involved in their search, it is not just limited to knowledge transfer from educator to students
- Sharing is a key component of learning process so team or group coaching can be applied successfully

According to Hase heutagogy is seen primarily applicable to vocational education and tailor-made company training. Universities might find some challenges in applying heutagogy, especially in terms of assessment. The principles of heutagogy seek to democratize the assessment process by allowing it to be driven by the realities of the “real world”.

3. CONCLUSIONS AND FURTHER RESEARCH

Heutagogy represents unique approach to adult education and could bring some revolutionary principles into tertiary education. This would also increase the connection between official education of students and the application of gained competencies in practice later on. It seems to be relevant especially for educating young potential entrepreneurs as it develops non-directly many competencies in their profile.

The further research is planned especially in connection of using coaching and social media in education, which is another important heutagogical tool. Social media would provide another opportunity for engagement students in the process of learning.

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