

SELECTED PROBLEMS OF ENTERPRISE MANAGEMENT IN THE
KNOWLEDGE-BASED ECONOMY

The article presents problems related to enterprise management which result from the conditions of the knowledge-based economy, and also occur in the restructuring process of firms which want to reach the level of knowledge-based organizations. The main attention is focused on the organizational model of a knowledge-based enterprise, knowledge management and managing people working for enterprises. It presents some examples of irregularities occurring in Polish firms.

Keywords: knowledge-based economy, knowledge-based organization, knowledge management, knowledge workers

Introduction. In the 20th century, the coming of the year 2000 for many theoreticians of economics and managers managing firms became a great challenge. They felt that the beginning of the 21st century would be a breakthrough for the economic theory and practice. Since the development of new technologies, especially with regard to computerization and the Internet, the development of new economic and management concepts, as well as the progressing political transformations creating market changes were an exceptional driving force behind economic successes of countries, numerous firms and individual investors, new economic and socio-political frameworks of the world were outlined. An idea of a new, global economy driven by the development of knowledge has emerged. It has a lot of advantages, but as the first experiences of the era of knowledge prove, it lacks many key solutions and also generates numerous problems with the implementation of adequate solutions adequate. And these issues are discussed in this article.

The evolution of the basic problems in managing organizations. The history of the contemporary economic activity and organization management starts at the beginning of the 19th century. A lot of inventions of the fundamental significance for industrial activity gradually create a technological base, remodel the way of working and living of societies, foster the development of firms which are treated as a wonderful "money-making machine" becoming a source of wealth for their owners. At the beginning of the 20th century, the development of enterprises is faster and

faster as a result of applying solutions formed within a scientific organization of labor which increased the efficiency of workforce. The application of production economies of scale leads, however, to surplus production and problems with selling goods, and competing by means of prices becomes an insufficient tool. Thus, the concept of marketing comes into existence, in consequence of which power in organizations is taken over from engineers by marketing department employees. Yet, they do not enjoy their dominance in firms for long because a new orientation in management appears, the global one, and organization management is taken over by managers generalists able to apply the systemic approach. They begin to use some values in practice, such as [1]: openness, comprehensiveness, orientation to the future, creativity, results orientation, cooperation. In mid-1990s, orientation to knowledge establishes and it is postulated that knowledge management should become the prevailing concept in organization management. A synthetic approach to the evolution of the basic orientations, problems, leading management mottos and concepts considering the type of the environment is presented in Table 1.

Table 1.

A synthetic approach to the evolution of the basic orientations in enterprise management

Orientation	Type of the environment	Prevailing management concept	Period of prevalence (approximate dates)	Main problem	Main motto
Entrepreneurial	peaceful-accidental	management via experience and intuition	1820-1880	how to gain strength?	the stronger and more ruthless one wins
Production	peaceful-restructured	functional management	1880-1930	how to provide a cheap product?	the more efficient one wins
Market	transforming-influencing	marketing management	1930-1970	how to expand the market?	the more competitive one wins
Global	"turbulent field"	strategic management	1970 to mid-1990s	how to make human knowledge more productive?	the wiser and faster one wins
Knowledge-based	network turbulent	knowledge management and knowledge-based resource management	since the second half of 1990s - ?	how to manage knowledge resources efficiently?	the one able to generate distinguishing knowledge efficiently and use it wins

Source: own study based on [1], [2].

The new economy. The end of the 1990s resulted in the formation of new conditions of management. They are defined today by the term

"knowledge-based economy". L. Zienkowski defines it "as an economy in which knowledge as such (outlays and the state of knowledge) becomes a more important factor determining the development rate and the level of the economic development than the outlays and the state (volume) of fixed assets" [3].

For many businesses the advent of the conditions of the knowledge-based economy has become a developmental opportunity, but also brought a lot of new challenges and threats. They primarily arise from the main advantages of the knowledge-based economy, namely [4]:

- recognizing knowledge as the fundamental factor of production being the base for the rational use of the remaining factors - labor, land and capital - resulted in the introduction of substantial changes in the manner of operations in many organizations. The changes consisted, among other things, in the purchase and use of state-of-the-art machinery stock, the use of specialist computer systems, the implementation of knowledge management systems, employment restructuring and a great number of organizational changes which have improved their functioning. However, creating knowledge-based organizations also poses threats, for example in the necessity to incur heavy investment expenditure, which with the lack of proper accurate decisions, the lack of own funds, the lack of proper fulfillment of obligations of economic partners, instability on financial markets may contribute to the loss of financial liquidity of the firm and its collapse;
- globalization - which opens new markets in the world, creating facilitations in the purchase of raw materials, materials or semi-finished goods, as well as in selling own products, but at the same time it increases competition on firms' own markets, including local ones, creating conditions for new entries of foreign businesses;
- networking, being a consequence of the development of cooperation systems and the progressing globalization, which fosters a better use of own capacities of enterprises, the concentration of financial capitals, but through the formation of economically strong groups it threatens the existence of small and medium-sized business entities on which economies and labor markets are based, particularly in developing countries;
- turbulence creating the volatility of the future and chaos;
- broader and broader use of computer technique in business activities and many spheres of the life of societies, which brings a lot of benefits but also poses numerous threats, such as viruses inactivating systems, data thefts by hackers, malicious software (e.g. malware) gaining data from the Internet users' computers, etc.

Non-uniform development of electronic economy favors the occurrence of various types of phenomena of exclusions;

- changes in the expectations and lifestyle of societies, which creates demand for many new products and services, but also a great number of threats, such as a decrease in the birth rate level of societies, an increase in the number of divorces, isolation of individuals from communities, and establishing contacts only via modern means of communications, the growth of various addictions and the development of new social pathologies. etc.;

Therefore, enterprises become forced to compete in the conditions of: expanding globalization, increasing competition, developing cooperation systems of enterprises, fast technological changes, broader and broader use of the Internet and the development of e-business, greater and greater requirements of states and societies towards conducted activities, more and more demanding employees towards their employers. The speed of changes which are necessary to be made has increased the process of the European integration. Such conditionings put Polish firms and the firms of the former socialist block countries in a special position because they have not managed to generate experiences, new marketing skills, and flexible activities yet, and they already have to develop new skills of, among others, knowledge management and intellectual capital, as well as activities on the integrated European markets characterized by a high level of competition. The slowdown of the development of the world economy in consequence of the financial crisis of the first decade of the 21st century has given those firms a small chance to make up for the deficiencies in their competences. A lot, however, depends on the managers who have to realize a necessity to restructure enterprises and adapt them to the new conditions of activities [5].

The basic tendencies in economy and society have brought about the emergence of a new target type of organization and employees (Figure 1), as well as the management concepts focused on intangible resources. They are described below.

Changes in the enterprise organization model. Economic growth can be described on the macro level but from that level it cannot be explained. In order to understand economic growth, conducted analyses should be on the micro level, on which specific behaviors of people and enterprises appear and where new innovative solutions are created [6]. Therefore, in the first place, attention will be paid to the desired qualities of enterprises which want to be become successful in the conditions of the knowledge-based economy.

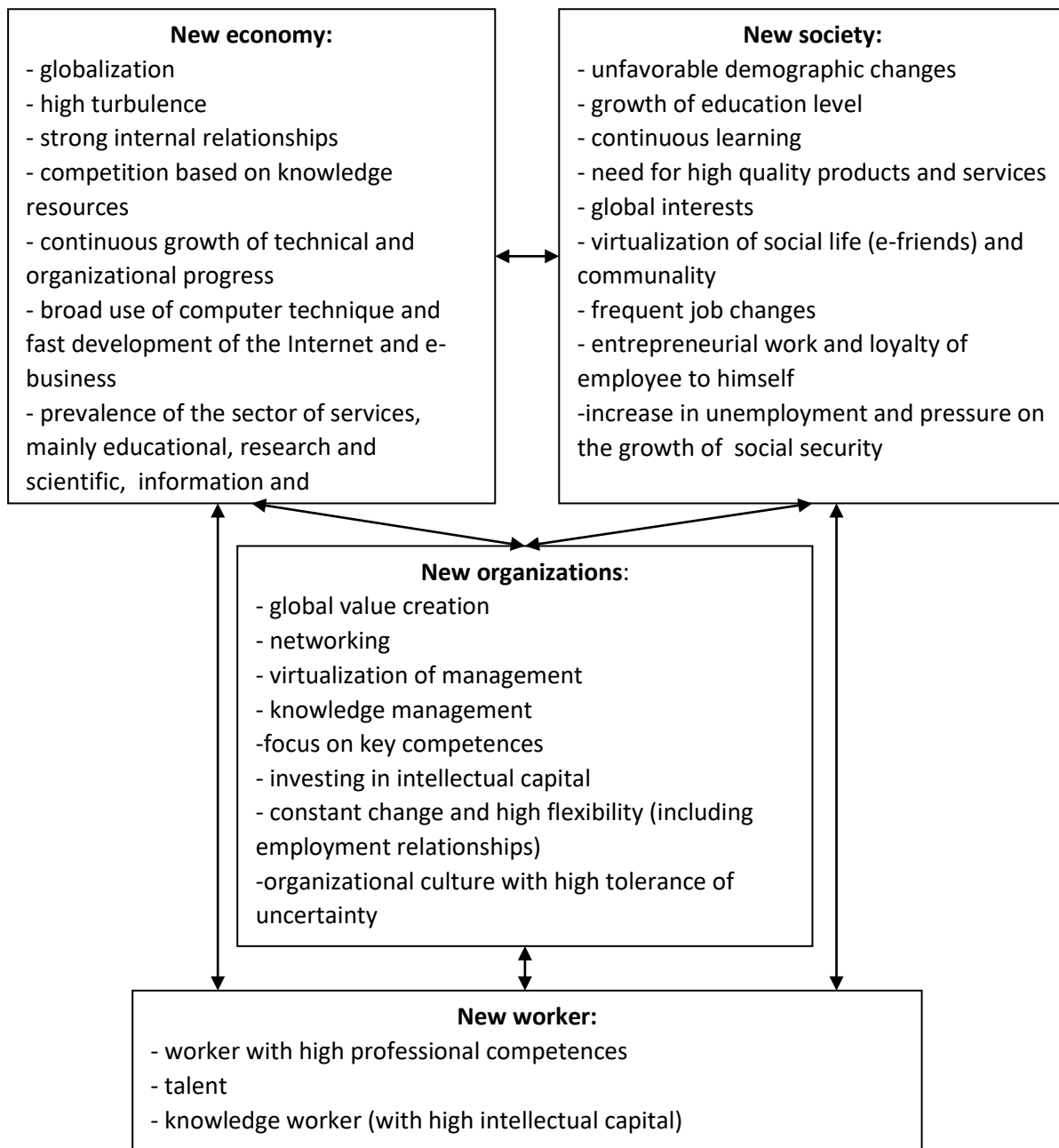


Figure 1. Basic tendencies in economy and society leading to the emergence of a new type of organization and worker

Source: own study.

Enterprises adapted to operate in the conditions of the knowledge-based economy are called knowledge-based organizations. An organization of this type is often associated with the models of a learning, intelligent, fractal, networking and virtual organization.

A knowledge-based organization can be defined as one whose activity is based on knowledge and knowledge is at the same time the fundamental source of value creation, but the value is oriented not only to the owner or a customer, but to all interacting entities, namely workers, society, partnership organizations, and other organizations, also

competitive ones, through the fact of the possibility of coexistence and development. Knowledge-based organizations focus particularly on the processes of organizational learning and knowledge management, which are the base for their functioning, adaptation to changes in the environment, innovativeness, formation of creative networks (not only with partnership organizations but also with individuals) and the development of intellectual capital. Table 2 compares selected qualities of the industrial era organization and knowledge-based era organization.

Table 2.

Industrial and knowledge-based model of enterprise

Distinguishing feature	Traditional, industrial enterprise	Knowledge-based enterprise
Goal	Making profit	Creating global value, for owners, customers, employees, cooperating firms, competitors, society, state and other stakeholders
Scope of activities	Regional, local	Global, multinational, supranational
Prevailing resource	Real and financial capital	Knowledge and intellectual capital
Directions of major investments	Tangible resources	Intangible resources
Organizational structure	Traditional, focused on functions of enterprise with the dominance of hierarchical relationships, a lot of pressure on control	Network, focused on relations, processes and cooperation of individuals
Power	Centralized. Source of power: location in organizational hierarchy	Decentralized. Decisions made in the place of the realization of tasks. Source of power: possessed professional competences (knowledge, abilities to act, adopted attitudes)
Production	Based on economies of scale, long production lines, rare changes in production, narrow assortment of production, unsophisticated product, use of specialized machines	Based on economies of scope, short production lines, frequent improvements in products and production, wide assortment, product rich in knowledge, flexible machines with easy assembly and its low cost
Marketing	Concentration on transactions - mass marketing principles prevail, e.g. focus on product qualities, selling one product to many customers, winning a continuous stream of new customers, customer surveys, economies of scale	Concentration on relationships - principles of customer relationship management prevail, e.g. focus on customer value, selling many products to one customer, winning a continuous stream of new orders from existing customers, share of wallet, economies of scope, customer knowledge management

Source: own study based on [7], [8], [9], [10], [11]

Knowledge management in enterprises. The World Bank considered the following basic pillars of the knowledge-based economy: innovation system, education system, institutional and business environment, regional factors, ICT systems, and knowledge management in an organization [12]. Recognizing knowledge management as one of the basic pillars of the knowledge-based economy should not be surprising as "the basic conditions for achieving a strong market position and a long-

term competitive advantage are the continuous and holistic creation and application of knowledge in an enterprise.” [13]. It arises from the fact that knowledge resources have a unique capacity for structuring in technologies, procedures, organizational documentation, competences of people and databases, as well as the possibility to materialize in goods and services. Owing to that, knowledge can be a market product and as such it can be an object of purchase-sale transactions [14]. Meanwhile, in Poland firms have serious problems with the implementation and application of knowledge management. It is proven by the findings of numerous empirical research. For example, based on the opinion of an elite group of the Polish Quality Award winners from the years 1995-2010, there is little interest in the consideration of the problems of knowledge in the overall strategy of enterprises. From the conducted survey it results that 37% of respondents made an attempt to create and consider the KM strategy in the overall strategy, 34.8% did not make such an attempt, and at the same time 28.2% of respondents, when giving a response, did not take a stand on this important issue. Among the reasons for ignoring the need to possess deep knowledge in the strategic decision-making process, the following were indicated: the complexity of knowledge (73.9%), its dispersion (69.5%), the lack of awareness of the importance of the knowledge-based economy (56.6%), the lack of awareness of the importance of knowledge as a significant tool of improving the effectiveness and efficiency of an organization (54.4%). At the same time, half of the respondents pointed out the lack of the awareness of the importance of knowledge as a significant tool of the competitiveness of enterprises [15].

The new theory of economic growth assumes development via education, learning through action and research [16]. To a great extent, the components of the organizational learning process are its equivalent, namely traditional learning (education), empirical (action in practice) and cybernetic learning (questioning valid assumptions and their change) [7]. The research conducted in Poland shows that in Poland the application of methods oriented to traditional and empirical learning prevails. The cybernetic learning methods are applied less frequently: searching for breakthroughs, an approach based on redundancy in generating ideas, questioning goals of an organization, planning implementation activities [17]. Therefore, the orientation to the implementation of new and innovative solutions is poor. Polish mining can be an example of failures in the adaptability of organizations to the functioning in the condition of the knowledge-based economy. Over the last few years, there was an information campaign talking about successes of the Polish mining within that scope. However, it turned out that a considerable part of it has such a

large financial debt that there is a threat of bankruptcy. There is not enough money for the payment of liabilities and remunerations for employees. To date, a lot of changes have been made in the restructuring process of mines. The education and training system has been expanded, putting a lot of pressure on continuing learning. In terms of IT infrastructure, a lot of new IT systems have been implemented to improve the quality of work of mines, for greater effectiveness of work, to improve safety. In order to achieve adequate economic incentives and institutional conditions, mining development policy has been based on clusters. There has been an attempt to achieve the growth of innovative potential via the development of cooperation with research centers, universities, research centers, expert teams and forming public-private partnership. A lot has been invested in many new technologies. Yet, the Central Statistical Office data concerning the level of the innovativeness of Polish firms show that mining is characterized by the lowest level of innovativeness in the economy [18]. Ergo, has been forgotten about in the restructuring process? What arises from the invoked article is that it is winning qualified staff (because training alone will not create high class specialists) and real knowledge management (namely, the fifth pillar of the knowledge-based economy) which have been forgotten about.

One can try to indicate a lot of causes of the described situation. For example, the blame can be put on the ignorance of managers, poor motivation of workers because of low pays, maximizing profits through minimizing costs, the lack of experience in knowledge management, but it seems that the problem lies deeper, in the Polish organizational culture [19].

Managing people working for enterprises. In firms operating in the conditions of knowledge-based management, a new structure of human resources has developed. Knowledge workers, personnel supporting them and partners participating in the value creation process (coming from external organizations and individual customers) prevail in it (Table 3). Thus, we should talk about people working for enterprises rather than about workers. In the countries reaching the knowledge-based economy, the structure is only forming.

People working for enterprises perform a central role in "anchoring" resources used in them:

- they are the owners of the key part of the knowledge resource used by the organization, that is personalized knowledge (sticking in their minds), which activates and steers the use of other intangible and tangible resources,

- they are a foothold for any relationships inside the organization and those coming out of it.

Table 3.

Roles and tasks in the structure of human resources of a contemporary organization

Group of people working for an organization	Performed roles	Realized tasks	Examples
Knowledge workers	Imitative and creative	Searching for, transferring and using knowledge in creating new knowledge resources	Designers, constructors, top and middle management, technologists, public relations specialists
Personnel	Supporting	Collecting, making available and protecting information and knowledge	Secretarial services, accounts and HR department workers, production and transport equipment operation
Partners participating in the value creation process: 1. External knowledge workers 2. Supporting partners	1. Supporting 2. Imitative 3. Creative	1. Searching for, transferring and using knowledge in creating new knowledge resources 2. Collecting, making available and protecting information and knowledge	1. Scientists, architects, lawyers, financial advisers, 2. Leased personnel 3. Customers

Source: [20]

From the perspective of the knowledge-based economy, the indicated properties make people working for enterprises a particularly valuable asset because they acquire, create, transfer and apply a key economic resource, namely knowledge, and additionally form soft network relationships in an enterprise, to the regional and global scale. At present, no computer network will create business relationships unless people sit or stand in front of computers.

Fundamental roles in enterprises should be performed by knowledge workers. However, the way of influencing other groups of people working for the organization should also be well-thought-out and rational. The instruments which are proposed for application and which come to the fore are nowadays: human capital management, talent management, customer knowledge management.

Yet, the Polish economic practice is full of dysfunctions and pathologies with regard to human resources management. Motivating employees is an area with particular intensity of dysfunctions. Other areas, such as assessing, choosing and employing, onboarding, development and derecruitment, as research findings show, are also full of dysfunctions [21]. A lot of firms underplay the aspect of job satisfaction, focusing only on the final effect of work. Thus, the issues which are crucial for effective

management, such as: effective communication between employees and their superiors, clearly defined goals and requirements, the use of feedback, improving qualifications via training and coaching, and effective motivation are ignored [22]. Such a situation obviously does not foster the development of knowledge-based organizations, creating innovations, the implementation of knowledge management, and thus reaching by the economy the level of the knowledge-based economy.

Conclusions. “In the twentieth century, mankind made a transition from a matter-based economy to one based on ideas - from an emphasis on natural resources to focusing on thought, design and organization” [23]. In the literature of the subject, there are dozens of such statements. But it is already the second decade of the 21st century, and in Poland, during a discussion on the economic growth, politicians and entrepreneurs in the first place use the industrial production volume indicators. The solution of economic problems and the acceleration of the development of enterprises requires a change in the mindset of managers and employees, as well as political elites. Outdated thinking patterns must be replaced with new ones, adequate for the contemporary times. It is necessary to create a new economic culture - a culture of the knowledge-based economy. And in enterprises it is necessary to implement organizational culture fostering intangible resource management, relying on the value of high employee competences and innovativeness. It can be only achieved via the development and continuous improvement in national innovation systems and national education systems, along with an increase in the access of all members of the societies of Europe to them.

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