

*Piotr Nesterowicz\*, Mieczysław Przybyła\*\**

## **EMERGING ORGANIZATIONAL CHALLENGE - MANAGING CONTINUOUS SELF-RENEWAL AND OPERATIONAL EFFECTIVENESS**

---

---

Facing the increasing turbulence and uncertainty of the markets, in order to compete effectively, the companies have to develop new set of skills. They have to be able to strive for operational excellence crucial for their competitiveness during the periods of stable market development. At the same time they have to ensure the ability to self-renew – crucial to avoid trap of organizational stasis and to survive external shocks.

### **1. INTRODUCTION**

The global economy of the 1990s has been undergoing significant changes. Numerous authors – not only economists or management theorists – have described the transformation of modern societies and economies towards global, post-industrial society based on knowledge and information. The pace, scale and potential implications of these processes have often been compared with the industrial revolution of the 19<sup>th</sup> century. Therefore it is important to understand what drives these processes, and, even more important, what are their implications for management concepts and applications.

What shall be the attributes of a successful organization operating in such new conditions? To answer this question, one has first to understand the key processes driving the changes. It is also important to see these changes in the context of the driving forces influencing the shape and behaviour of the organization. This might be a starting point for discussion of the characteristics of the modern effective organization.

---

\* McKinsey & Company Poland, Warszawa; e-mail: [Piotr.Nesterowicz@mckinsey.com](mailto:Piotr.Nesterowicz@mckinsey.com)

\*\* Department of Management and Organization Theory, Wrocław University of Economics;  
e-mail: [przybyla@manager.ae.wroc.pl](mailto:przybyla@manager.ae.wroc.pl)

## 2. GLOBALIZATION AND DEVELOPMENT OF A KNOWLEDGE-BASED SOCIETY

When analysing the main processes in global economy, two of them seem to be the most "prominent" and potentially have the biggest impact on the competitive landscape of many markets. These are the processes of globalization and information technology growth.

In the 1990s it has become clear that the global economy is not anymore a federation of national markets, and is transforming into a truly international organism. Between 1990–1995 the value of global exports grew, in fixed prices, by 24%. In current prices, it has grown from USD 1.9 trillion in 1990 to 4.8 trillion in 1995. International capital flows increased from around USD 500 billion in 1991 to 1.2 trillion in 1995. The size of direct foreign investments in the mid-nineties was ten times bigger than at the end of eighties – USD 250 billion in 1996 versus a mere 26 billion.

The second important process in shaping the competitive environment, is the increasing role and importance of information technology (IT) and technological conversion. The worldwide market for IT in 1995 was estimated to exceed USD 500 billions. Its growth rate has doubled the growth of global GDP, reaching almost 10% annually. The size and pace of its development is illustrated by the example of the increase of PC usage. In the course of the last seven years the number of PCs per 100 inhabitants in United States has grown by 100%, reaching 30 units. The amazing growth of Internet, with its relatively cheap access to global information sources, means new quality in the access to information and knowledge.

More and more industries have become truly global – not just international – ones. It has been estimated that over 20% of global GDP is generated by such global industries as raw materials, industrial goods (like aircraft engines, semiconductors or construction equipment) and chemicals and oil processing. The next 15% is generated by industries which are quickly becoming truly global. These are information technology, electronics, fast moving consumer goods, pharmaceuticals and consulting (Fraser et al. 1997).

These processes are the elements of a wider process of a development of the knowledge-based society. The societies are undergoing changes from natural resources-based, through industrial, down to information and knowledge intensive. As P. Drucker (1993) has noticed, at the end of 19<sup>th</sup> century, nine out of ten employees were involved in producing or transporting of goods. Currently these proportions are dramatically different. Only two out of ten produce or move – the others are involved in services and information

processing. This society (often called post-industrial) is supposed to be governed by dramatically different rules and values than "old" societies.

### 3. THE MARKET AS A COMPLEX ADAPTIVE SYSTEM

The scale and pace of change in the global economy have implications for theories describing market behaviour. The belief that classical microeconomics theories are too simple and do not describe true market conditions is becoming more and more popular. Several authors have challenged such major assumptions of neoclassical microeconomics like closed equilibrium system and diminishing returns.

Already in 1927 J. Clark (1927) allowed a major exception to these assumptions claiming that "knowledge is the only production factor that does not follow the diminishing returns law". As B. Arthur (1990) argues, the diminishing return assumption is not true for several modern markets, such as aeroplanes or software industries. P. Krugman (1996) argues that neoclassical closed equilibrium might be right for a part of the market in a given moment of time, but this is due to the fact that modern markets usually have several local equilibrium points.

Therefore a new, alternative to the neoclassical, theory has been developing. It is based on the assumption that the market behaves as a complex adaptive system. Such a system is governed by the intensive interactions among system's agents, positive feedback leading to increasing, not diminishing returns, evolutionary, but not linear, processes and path dependence.

Examples of the markets that behave as such systems include high-tech industries, which face non-linear technological changes, and some of the innovations shape industry structure for years. An example could be the domination of the PC standard over the Apple which was superior at that time, or the emergence of the MS-DOS and Windows emporium. Another often mentioned example is the stock exchange market.

How can the market behaving as a complex adaptive system be summarized in an easy way to comprehend and apply concept? We can use here an analogy to the evolution concepts of S. Gould and N. Eldridge (1972 and 1977). They argued that evolution is not a linear process of changes but it takes place in a series of sudden eruptions of many species. The complex systems theory assumes that the system is dynamic and never exists in the stable, stationary conditions, but spontaneously is moving towards a turbulent crisis state. It evolves not gradually, but in jumps, with long periods of stasis-equilibrium and short period of significant changes. The market is such a punctuating

equilibrium state, in which after the periods of revolutionary changes there are periods of slow, gradual evolution.

#### 4. THE CHANGES OF THE MANAGEMENT THEORY PARADIGM

The success of a contemporary firm to a large extent depends on the manager's skills that are built by intuition, practical experience and theoretical knowledge. Theoretical knowledge plays a special role in the management of highly complex modern organizations. The acquisition of this knowledge, structuring and its practical application is not easy. This is because there is no one theory of management, but a number of concepts constantly changing in time and space. This results from the empirical nature of management science. Therefore, as the environment and conditions change over time, so the management theories should, and do change. There may be as many different management concepts as there are different cultural and civilization constraints.

There are many theories of management that are rather working hypotheses being all the time verified in practice. Even the most fundamental ones are only partial truths, that with the time passing are being totally or at least partially abandoned. This is an important fact that managers, who often use very classical management concepts which do not match modern requirements, should be aware of.

These theories are based on the false assumption that the effectiveness of the organization should be determined by its ability to resist external and internal pressures, not to adjust to changing conditions. They also assumed that the behaviour of a man in the organization is determined by the existing set of rules, norms and policies, which are external to the individual. Taylor suggested combining individual characteristics with work attributes, with motivation and capabilities coming from the individual him/herself, but the behaviour and actions must be defined from outside – governed by the universal managerial principles. The quite extreme concept of such structural understanding of the organization was Weber's concept of an ideal bureaucratic organization. The construction of such an organization was very rational, consciously developed, effective and with no disturbances. Such a research approach could be called the paradigm of structural rationality that assumes the domination of the structure over the human and not taking into consideration the environment of the enterprise. Application of that paradigm in practice could have a payoff in the era of mass and cheap manufacturing, significant degree of entrepreneur freedom (no significant government intervention, no strong unions, ecology or consumer groups), reasonable stability and low dynamics of environment.

However, the conditions of the companies' functioning had changed and structural understanding of management became the barrier to their development. The growing complexity of the managerial processes in growing companies resulted in the separation of management from ownership. The manager profession evolved, the number of administrative staff grew, and the organization evolved towards more functional structures. Not only technology, but human relations and work atmosphere have become barriers to increased productivity. So new theories emerged, basing more on the assumption of the dominating role of man in the organization. These theories underline the emotional aspects of human beings, and assume that any employee expects to be treated as a subject of influences, to have knowledge about human behaviour included in managerial practices. This means that the organization, its structure and management should be adjusted to human nature. The change of management approach should come from the change in human perception and behaviour.

This research approach can be called the paradigm of subject domination. It lies on the basis of Follet's concepts of power in the organization – fundamentally different from that of the structural school. According to Follet, power is the ability to influence the events with others, not above others. So power is possessed both by managers and subordinates. The approach to responsibility is also different – not in front of someone, but for something. Similar concepts can be found in Maslow and McGregor. Maslow assumed a very holistic character of human nature, with its higher, instinctoidal sphere. Managers have to keep in mind that "The man has to be who he/she can be. Must stick to his/her nature". McGregor built on that proving that the approach of managers to people is driving their managerial styles. Based on the Y theory, he tried to define the model of a self-fulfilling man.

The modern environment requires abandoning both the assumption of the domination of man over an organization and of an organization over man. They also highlight the need for taking into consideration the third important aspect of organizational success – environment management. Therefore the organization, people working there and the environment are the three key aspects of managerial space. Since all of them are constantly changing, the success in managing a modern company depends on the proper shaping of the dynamic balance between these three factors. The needs, desires, values and objectives of people working in the organization do change. This is followed, or actually more often preceded by even more dynamic changes in the environment. Therefore modern management theories should be guided by the approach that can be called the paradigm of situational equilibrium. This means taking the assumption of permanent change of the three management space

factors. In such a situation, managing the company can be understood as a process of creating the dynamic equilibrium between the objectives of the company, employees and the environment.

## 5. THE EVOLUTION OF ORGANIZATIONS

The modern concept of organization is in the direction highlighted above. It does underline the importance and scale of its connections with the environment. The systems theory of organization covers an analysis of organization as the social system of many elements, like social roles, goals, values, information and decision-making systems, and also management techniques and methods. All these create a general concept of the organization. The theory argues that organizations are open, able to self-transformation systems. "Changes in environment ... might ease or endanger its development. Therefore organizations constantly have to monitor and answer it. They have to be self-adaptive systems" (Bolesta-Kukulka 1995). The complexity of an organization is created by numerous organization agents applying few basic rules of behaviour in many configurations.

So if the organization is the complex adaptive system, then its functioning should be governed by the same basic rules that govern other systems, like biological or economic ones. It also implies that the organization undergoes similar evolutionary process. The phase of an organization's origin is dominated by a lack of clear procedures, and the main engine of growth is the creativity and entrepreneurship of the first members of the organization. It is the phase similar to the eruption of many species in the Gould and Eldridge theory. Many ideas are being developed and tested, and only a few survive. With the further development of the organization, there is pressure on creating more order in how the organization operates. Structures, procedures and policies are being developed, and the organization focuses on its core activities. Operational effectiveness is improving, but at the cost of narrowing development options. In a particular moment of its evolution the organization reaches a point in which there is only one way of further development and a trial to make any significant alternation requires a disproportionate effort. The organization ages and becomes more and more limited by procedures and organizational solutions when used to be effective. The assumptions and mental models, that have been used, become the "holy cows" of the organization. The organization, focused on its quest for the maximization of operational effectiveness, becomes more and more inflexible. This increases its vulnerability to attacks from new competitors and is one of the major reasons for the so often observed decline of market leaders.

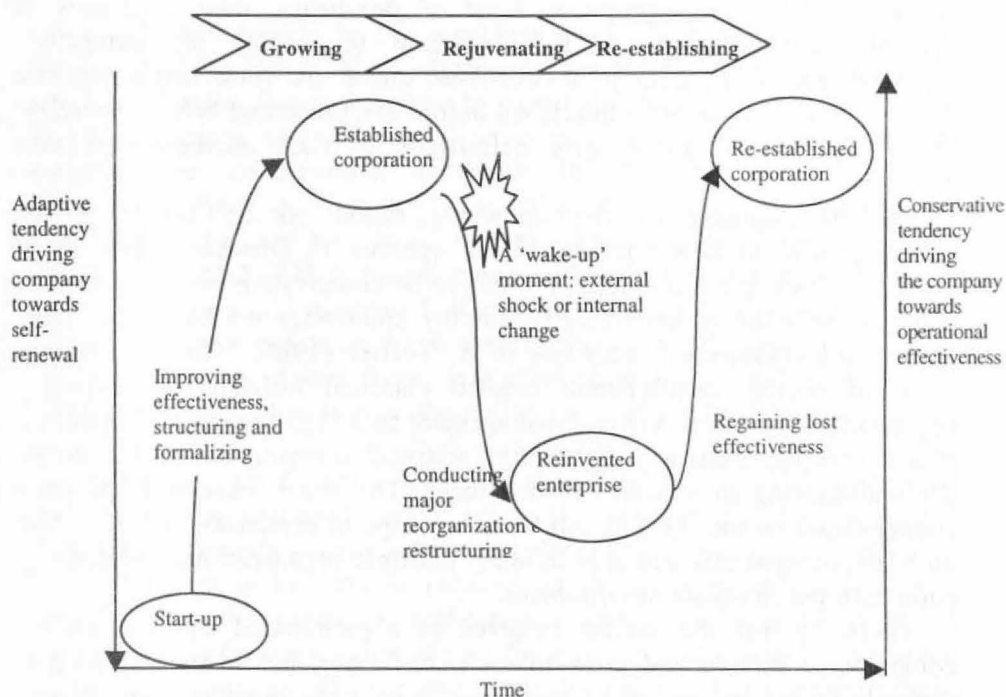


Fig. 1. Organizational evolution

Source: Authors' concept

There are two main forces clashing in the organization: the conservative tendency to maintain *status quo* described above, and the adaptive tendency to innovate. Thanks to the adaptive tendency, many organizations manage to move to the next stage of development. The company reinvents itself, creating new ways of organizing and operating. Then the cycle is often repeated (Figure 1). However, what distinguishes the truly successful company from an average one is the ability to manage such change quickly, more effectively, and way before the latest crisis happens.

## 6. THE IMPLICATIONS FOR THE COMPANIES

If the mechanisms described above determine the functioning of the economy, markets and organizations, the question evolves, what is their impact on the functioning of the companies? If the environment faces so radical changes, and the processes that occur inside organizations do not

guarantee them the appropriate level of flexibility, then what new or revised attributes have to be developed to sustain the company's competitiveness? In order to answer these questions, some implications of the processes and theories described before are presented below. Based on these implications, some early definitions of such attributes are then proposed.

The development of the knowledge-based society has important consequences for how companies will operate. P. Drucker (1988, 1993) clearly defines that if a company wants to be competitive in such a society, it has to be based on knowledge – employ knowledge workers – and to be able to self-transform. According to A. Toffler (1985, 1986), the second wave of society development created classical bureaucratic industrial organization, based on vertical management in a big, hierarchical structure. It is a very mechanistic organization, adapted to repeatable operation and decision-making in a stable environment. The third wave that currently changes modern society will call for a new type of organization – more flat, with less components and able to apply multiple organizational solutions to cope with the changing environment.

Assuming that the market behaves as a punctuated equilibrium, the company, to survive and grow in such conditions, has to be able to both compete during the period of stasis and during the revolutionary changes (Beinhocker 1997). This means that a truly successful organization has to be operationally effective – for the periods of stable evolution, and to possess the ability of quick adaptation to changes, or even the active creation of such. This forces companies to build quite different sets of skills, and compromising to opposite tendencies. The two are: (1) unification of the procedures and concentration of excelling in a narrow set of solutions to maximize operational effectiveness, and (2) to ensure variety, experimenting and informal organizational ties to build creativity and flexibility.

Using the analogy to the complex adaptive systems, such an ability of combining these two sets of skills can be called 'balancing at the edge of chaos'. The complex systems oscillate from a very stable state to a chaotic one. The stable state can be compared to the dominance of the conservative tendency in the organization, the chaotic state – to the creative tendency. The system to function in an optimal way should balance in the middle between the two extremes – close to the chaotic state, but with a certain degree of stability. The same has to happen in the organization if it wants to compete in the modern markets.



An additional insight to this conclusion comes from the concepts of organizational evolution. The company, to sustain its ability to cope with periods of market fluctuation has to avoid the trap of evolving too far towards operational effectiveness. It has to escape from the aging trend and overcome the conservative tendency in the organization. Aging organizations have to constantly redefine themselves. A number of companies can be used here as an example. The success of companies like Intel, Disney, ABB, 3M is based, among other factors, on their ability to renew themselves. Also some Polish companies, like Famak and ABB Zamech, attempt to create such self-transformation mechanisms.

The implication of that thesis is a need to create a mechanism in the organization that will guarantee the ability to generate and implement more than one development option. Such a mechanism will also allow building and cultivating two different skill sets described before. The companies that successfully managed the paradox of self-renewal and operational effectiveness actively invest in four elements – the basic requirements for the organization to be able to balance on the edge of chaos. The first requirement is to create a self-renewal engine – a mechanism of constructive confrontation that allows the company to constantly abandon ageing skills and to change the way it perceives its environment, competitors and customers. The second requirement is to manage the learning processes well – thus to ensure that the company is capable of quickly translating new concepts into actionable steps, and also that a continuous stream of effectiveness improvement ideas are being spread around the company and implemented.

The third requirement that supports the interaction between the previous two is creating an open information system. Such a system, treating information and knowledge as a key and easy to access asset, should guarantee the constant flow of knowledge and experience gained through the learning processes as an input for constructive confrontation. At the same time, it allows to diffuse new concepts and ideas quickly, thus supporting the renewal process. In most companies meeting these three requirements is possible only when major changes in the organizational culture are implemented. Therefore, creating the appropriate organizational culture, including such values, like encouraging risk taking, entrepreneurship, sharing knowledge and treating information as common asset, is the fourth requirement. These four elements are key characteristics of a company that is able to successfully survive in the modern turbulent environment and that is effectively managing constraining requirements of the adaptive and conservative tendencies in the organization.

## REFERENCES

- Arthur, B. (1990): *Positive Feedbacks in the Economy*, "Scientific American", February.
- Beinhocker, E. (1997): *Strategy at the Edge of Chaos*, "The McKinsey Quarterly", no 1.
- Bolesta-Kukulka, K. (1995): *Świat organizacji [Organization World]*, in: Koźmiński, A., Piotrowski W., eds.: *Zarządzanie. Teoria i praktyka [Management. Theory and Practice]*. PWN, Warszawa.
- Drucker, P. (1988): *The Coming of the New Organization*. "Harvard Business Review", January–February.
- Drucker, P., (1993): *Post-Capitalist Society*. Butterworth Heinemann, Oxford.
- Drucker, P. (1993): *Professional's Productivity*, "Across the Board", November–December.
- Eldridge, N., Gould, S. (1977): *Punctuated Equilibria: the Tempo and Mode of Evolution Reconsidered*, "Paleobiology" no. 3.
- Fraser, J., Oppenheim, J. (1997): *What's New about Globalization*, "The McKinsey Quarterly" no. 2.
- Greiner, L. E., (1972): *Evolution and Revolution as Organizations Grow*, "Harvard Business Review", July–August (reprinted and updated in May–June 1998 issue).
- Kauffman, S. (1995): *At Home in the Universe: The Search for Laws of Self-Organization and Complexity*. Oxford University Press, New York.
- Krugman, P. (1996): *The Self-Organizing Economy*. Basil Blackwell, Oxford.
- Masude, Y. (1990): *Managing the Information Society*. Basil Blackwell, Oxford.
- Toffler, A. (1985): *The Adaptive Corporation*. McGraw-Hill, New York.
- Toffler, A. (1986): *Trzecia fala [Third Wave]*. PIW, Warszawa.
- Toffler, A. (1991): *Power Shift. Knowledge, Wealth and Violence at the Edge of the 21<sup>st</sup> Century*. Pan Books, London.

Received: 12.11.98; revised version 29.06.99