THE TRANSFORMATION OF CULTURE IN MODERN FORMS OF ORGANIZATION ON THE EXAMPLE OF VIRTUAL ORGANIZATIONS

Barbara Czarnecka*
Piotr Czarnecki**

Abstract

Nowadays organizations are required to be extremely flexible while maintaining the consistency and integrity of actions, which is a difficult task. What management mechanisms are needed for that? In such circumstances, what is the role of the organizational culture? Does it still remain a kind of a "glue" bonding a company into one piece? What are the patterns of behavior that emerge from a new way of doing business in companies? The purpose of this article is to present the challenges posed by the development of culture in virtual organizations and the identification of potential research directions in this area. We hope that the concepts of culture and related problems presented in this paper prove to be an inexhaustible potential for research on collective behavior patterns and their impact on the functioning of the modern organization.

Keywords: *virtual organization, organizational culture, flexible organization, collective patterns of action.*

1. Introduction

Modern companies undergo another wave of transformation brought by the era of the knowledge economy. Requirements related to the high organizational, financial and resource flexibility and wide use of the Internet for communication change the nature of the relationship between members of the organization from permanent to temporary. Nowadays organizations are required to be extremely flexible while maintaining the consistency and integrity of actions, which is a difficult task. What management mechanisms are needed for that? In such circumstances, what is the role of the organizational culture? Does it still remain a kind of a "glue" bonding a company into one piece? What are

---

* M.A., Lecturer, Department of Management, Faculty of Social Sciences and Informatics, Wyższa Szkoła Biznesu – National Louis University, ul. Zielona 27, 33-300 Nowy Sącz, e-mail: barbarac@wsb-nlu.edu.pl.
** Ph.D., Associate Professor, Department of Management, Faculty of Social Sciences and Informatics, Wyższa Szkoła Biznesu – National Louis University, ul. Zielona 27, 33-300 Nowy Sącz, e-mail: pczarnecki@wsb-nlu.edu.pl.

the patterns of behavior that emerge from a new way of doing business in companies? The purpose of this article is to present the challenges posed by the development of culture in virtual organizations and the identification of potential research directions in this area.

2. Directions of changes in the way that organizations operate nowadays

The environment in which organizations operate has changed significantly over the last 20 years. Under the influence of radical innovation in the area of technology, changes in the political map of the world, new trends and socio-cultural economic shocks, "the walls came down" (i.e. the boundaries which so far divided the various branches of economy, industries, organizations, as well as traditional functional cells within the companies themselves).

Speed and ease of dissemination of new ideas, and the free flow of resources have increased the rate of change in the environment. Due to these changes the environment has become:

- more extensive, due to the processes of globalization and electronic communication,
- more diverse, under the influence of an individualized approach to customers' needs and narrow product specialization,
- more unstable, as a consequence of rapid innovation and an increasingly shorter product lifecycle, solicited by changing needs and requirements of customers, as well as hyper-competition,
- more complex, because of the growing interdependence of social, demographic, political, economic, technological, and natural processes,
- impossible to predict, even in a relatively short period.

These trends have forced companies to radical, and sometimes even painful, changes leading to leaning the company; such as reengineering, downsizing, outsourcing and general cost reduction. The intervention methods, however, are not a panacea to the problems associated with the company's competitive advantage and development in turbulent environments.

As researchers argue, reasons for this trouble were: underestimation of intellectual capital as an important source of value, as well as continuous treatment of the organization as an independent unit, competing with other companies in a hostile market environment (in such conditions the company's interest is in the greatest possible autonomy and not in a closer relationship with other units of the environment; it is so called the paradigm of „an independent organization"(De Wit, Meyer, 2007, p. 238). An increasing awareness of the existence of these obstacles has led the company to make the next step towards greater cooperation and better control of creativity, innovation and knowledge management, and thus greater flexibility and agility. The paradigm

shift has resulted in a number of significant modifications in the following areas: strategic thinking and business models, the role and the importance of leadership, the way of using available resources, the organization of processes, communication, organizational structure and management systems. Table 1 lists the main areas of change in the way the modern organization operates.

Table 1. Directions of transformations in the way the organization operates

	Industrial Age Business	**Knowledge Age Business**
Focus	Bulk – material manufacturing	Design and use of Wtechnology & information
Goal	Commodity & differentiated products Profit/Growth/Control	Innovative products Self-renewal/sustainable enterprise/ innovation
Domain	Regional, local	Global, transnational, metanational
Strategic Orientation	Strategic planning and "fit" Rational strategy Resources and competencies	Strategic emergence and "shaping" strategy "Fuzzy" strategy Capabilities & innovation
Future	Predictability, determinism	Uncertainty, probability, possibility
Change	Periodic, steady rate, digestible	Accelerating, overwhelming, fluctuating
Rules	Linear cause and effect	Nonlinear complex interaction
Game Plan	Long range	Short range probability scenarios
Leader	Manages a strategic plan till its completion	Envisions and suggests possible changes
Power	Centralized decision-making and responsibility	Decentralization Distributed decision-making and responsibility
Challenge	Demand versus capacity to deliver	Demand versus capacity to change
Resources	Material and financial capital	Knowledge and intellectual capital
Knowledge Base	Highly specialized knowledge base resulting in single-skilling	Interdisciplinary knowledge base resulting in multi-skilling
Risk	Moving to quickly – out of control	Moving to slowly – out of the running
Role Of The Managerial Team	Optimization of quality and productivity Application of raw energy Repetitive day-to-day operations Processing of resources & information Separation and specialization of work and organization	Quality= productivity = adaptability and response Application of ideas Quest for innovation Processing of knowledge & capabilities Holistic approach to and integration of work and organization
Process Perspective	Parts interact in a sequence of steps End-to-end efficiency; standardization of the response Hierarchical, linear information flows	Whole emerges from interacting parts Micro-to-micro integrity key; feedback the response Multiple, boundary-less knowledge networking

	Industrial Age Business	Knowledge Age Business
Organization And Control	Bureaucratic	Meritocratic
	Direction, control	Guiding, cohering, focusing
	Value chain; single organization	Value system; multiple organizations
Performance Measures	Shareholder value	Stakeholder value
	Financial performance	Non-financial performance
Key Organization's Features	Organization as a systematic machine	Organization as a systemic organism
	Organization as a system with clearly set boundaries	Organization as a amorphous system with unclear and unstable boundaries
	Independent organization	Embedded organization
	Reactive/sustainability/stability	Anticipative/ flexibility/agility

Source: Own elaboration based on Leibold et. al (2002, pp. 19-20).

Therefore, nowadays organizations are required to: be able to make extremely rapid transformations; be ready for continuous learning and innovation; create networks with other stakeholders in order to survive in the global market; be ready for virtualization – increasing the range of action and allowing better access to resources. And these happen in the context of the continuing technological revolution and changing requirements of the people who become more and more independent, assertive, mobile, with a broad access to knowledge.

New ways of running a business can be embodied in such concepts as: the learning organization (Senge 2000, Morgan 1997), intelligent organization (Śliwa, 2001), organization on the move (Masłyk-Musiał 2003), chronically thawed organization (Weick, Quinn, 1999), organization without borders, N-forms of organization (Schreyögg, Sydow, 2010), embedded organization (De Wit, Mayer, 2007), as well as in structural solutions such as: the project organization, process-based organization, fractal organization, network organization, and virtual organization (Krupski et al. 2005; Brilman 2002; Parker et al., 2009, Warnecke, 1999).

Organizational changes in terms of objectives, technology and organizational structure, along with changes in the way of thinking, attitudes and behavior of the participants of the organization and the creation of new "collective patterns of action", are all subject to the achievement of the proposed outer and inner flexibility, and will help to improve the coordination of actions.

In the face of such significant changes, the question about the role and direction of the transformation of organizational culture arises again. If we use the theory of organizational equilibrium, culture is an essential tool for regulating the activity of companies in the social internal and external areas, acting as stabilization, integration and coordination, as well as affecting "mental

maps" and decisions made by people, by shaping patterns of perception and interpretation of events (Koźmiński, Obłój, 1989, p. 200-219). Nevertheless, in terms of organizational flexibility the following questions arise:

- Does culture still fulfill the role of a stabilizer within modern, ephemeral forms of organization?
- What cultural patterns emerge from the interactions in such a diverse and uncertain environment and when does it happen?
- Who or what becomes a source of cultural patterns?
- Which of these patterns have a positive impact on the efficiency of the organization and which do not?

Virtual organizations (VO) were selected to help analyze the cultural issues of contemporary companies. This type of organization was chosen due to the main characteristics of such an organization: flexibility, and heterogeneity of members, as well as the nature of electronic communication, which brings about a number of changes and challenges in the social area.

3. The characteristics of the virtual organization (VO)

The term "virtual organization" does not come down to a single, clearly defined organizational form. On the contrary, it includes a number of different configurations and solutions between structural units, where IT tools play an important role in the process of communication and coordination. This means that in order to define the characteristics of virtual organizations we need to use multiple criteria. The following dimensions, which will be used later in the analysis, were extracted from the literature:

1) the degree of independence of units included in the VO,
2) degree of virtuality, the meaning and scope of the use of IT tools,
3) the purpose for which the organization was established and period of cooperation.

The degree of independence of the units cooperating within the framework of the VO

Some researchers point out that virtual organizations are, first of all, a variation of the network organization, and this means that VOs consist of separate legally and economically independent entities (K. Zimniewicz, K. Bleicher, A. Sankowska, M. Wańtuchowicz - after: Stabryła et al. 2009, p. 93). Such a narrow approach would mean, however, that we cannot classify companies where employees are geographically dispersed and cooperate with each other only through electronic communication channels, using IT resources on the Web and offering services exclusively on-line. Therefore, one should assume that virtual organizations may consist of both companies as separate entities (suppliers, customers, clients, suppliers) as well as units

that are parts of the same organization, such as virtual project teams, affiliates, employees performing tasks of teleworking. Single individuals or companies can cooperate in the framework of the VO.

The scope of IT tools

The use of information systems for internal and external communication is a basic feature of virtual organizations. J. Niemczyk and K. Olejczyk put it as follows: "a virtual organization [...] uses intensively Internet, intranet and extranets to do better what previously was done with traditional methods, and to perform such tasks which were impossible to complete using classical techniques and technologies "(Krupski 2005, p. 112).

The scope of the use of IT tools may vary. This means that both types will be called virtual organization: companies using a mixed system - face to face and electronic contacts (with a predominance of the latter), as well as those organizations that exist only on the Internet, and communication and the flow of knowledge between their departments take place only online. The degree of virtuality, as well as the nature of the concluded contracts, may prove to be an important variable explaining the collective behavior of the members of the VO.

The objective of the action

Davidow and Malone (1993) define a virtual organization as a whole, which consists of many scattered participants (members), working temporarily in order to gain competitive advantage, operating within the framework of the joint value chain and business processes, supported by modern IT tools (in: Grabowski, Roberts, 1999). This definition indicates the duration and the purpose of the cooperation, as the next, important criteria related to this type of company.

Analyzing potential forms of a virtual organization, Camarinha-Matos and Afsarmanesh (2004) propose the following typology: virtual enterprise, extended enterprise, virtual organization, dynamic virtual organization, professional virtual community and business environment for the virtual organization (VO Breeding Environment) (Camarinha-Matos and Afsarmanesh, 2004, p. 8-9).
- Virtual Enterprise is an example of cooperation of many organizations on the basis of temporary strategic alliances, with companies operating in the same or another industry. They share resources and combine skills thanks to modern technology. The result of an activity of this form of a VO can be a common product or service. It is indicated, however, that the nature of such cooperation is more vulnerable to inequalities in relations and lack of genuine partnership, which results

from lack of common objectives in cooperation (companies compete with each other outside the Alliance). Studies indicate that about 70% of virtual alliances end up in a fiasco (Preston-Ortiz 2011).

- Extended Enterprise is a system in which one parent company "expands its boundaries" onto suppliers, for example, by separating the whole physical activity outdoors, keeping only tasks related to design and coordination, and using modern technology for this purpose (e.g. Nike).

- Virtual Organization means, according to these authors, cooperating with all other legally independent entities which are not necessarily geared towards profit, but sharing resources and skills to achieve their mission by offering common products and services, and operating as if they were one organization. As an example, they give municipal companies such as a town hall, a supplier water, a tax office, etc, linked by a computer network (Camarinha-Matos and Afsarmanesh, 2004, p. 9). It should be noted that this is the kind of partnership (peer relationship, having a common purpose), focused on the long term cooperation. It allows flexibility by tailoring customer service processes better, and not necessarily by a large variability of members. In terms of previously described doubts as to the degree of independence of the cooperating units, it can be said that this is a narrower approach to the virtual organization.

- Dynamic Virtual Organization is a variation of the virtual organization of provisional nature, which was set up to achieve a particular purpose, and precisely exists till the end of the life span of the product.

- Professional Virtual Community is a type of virtual community of experts from some areas, who exchange experience or work on projects related to their industry. Among all these virtual organizations, professionals make up a homogeneous group that often uses the same "technical" language and is consistent in terms of patterns of action (professional culture). However, each of the professionals can be a member of another organization at the same time.

- Business Environment for the virtual organization (VO Breeding Environment) is a form of a cluster, which brings together a wide range of institutions, both business units as well as governmental organizations which support them, local non-governmental organizations, banks, etc., in order to increase the potential of the companies in the long run. In the case of market opportunities, companies can quickly create an organizational network and offer products or services. In this case, it is difficult to speak of a "real organization". Rather, it is a platform that is used for an immediate creation of a network of enterprises, implementing the project together.

Grudzewski, Hejduk, and A. Sankowska and M. Wańtuchowicz also describe different models of the virtual organization in their book. They indicate that it encompasses the following varieties: virtual image, i.e. electronic business (B2C), developed by the organization as an extension of traditional activities; a variety of types of virtual alliances; virtual team; temporary virtual organization; permanent virtual organization; community of practitioners; inner virtual organization; stable virtual organization; dynamic virtual organization; Network (Web) virtual organization (Grudzewski et al. 2007, p. 169-178). Unfortunately, the great variety of forms the VO can take demonstrates that the virtual organization cannot be included in the framework of a single definition. On the other hand, a variety of models is an interesting and rich in information area of scientific exploration. To sum up, in Figure 1 the main features of virtual organization are shown.
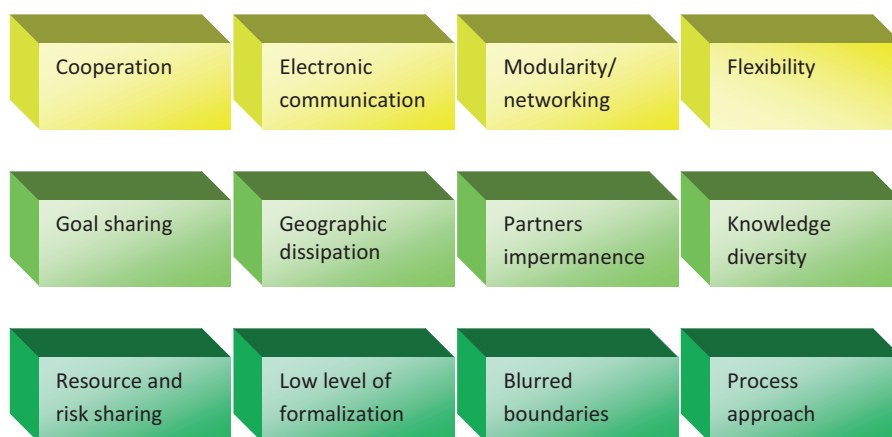
Cooperation	Electronic communication	Modularity/ networking	Flexibility
Goal sharing	Geographic dissipation	Partners impermanence	Knowledge diversity
Resource and risk sharing	Low level of formalization	Blurred boundaries	Process approach

Figure 1. The characteristics of virtual organization

Virtualization of organization's activities brings about a number of benefits, but also a lot of challenges. Chances are primarily a result of increase in the company's competitive advantage and responsiveness to emerging market opportunities. And the threats are rooted both in the process of implementation of new solutions, as well as uncertainties posed by the dynamics of the development of this type of structures.

The potential benefits from the implementation of the VO:
- organizational, financial and resource flexibility which enables a rapid response to emerging market opportunities and an individualized offer to customer expectations;

- low cost action by concentrating on core competencies, sharing resources (e.g. technology), sharing risk, shortening the period of preparing deals, the competitiveness of partners in the network;
- innovation - VOs do not only react quickly to changes in the environment, but also create them through innovation;
- access to knowledge resources thanks to cooperation of specialists from many fields and from different parts of the world; openness in sharing information promotes better management of intangible resources;
- greater tolerance for changes resulting from the temporality of the relationship between partners and participation in a variety of projects,
- greater autonomy of workers, although possibly not at all levels and in all fields of activities of organizations, especially those larger ones;
- partnership instead of hierarchy (empowerment), subject to the above,
- better opportunities for developing skills of employees;
- development of cooperation ,
- VOs are a special opportunity for small and micro enterprises, because they facilitate their entry into new markets and access to resources that are not within the reach of financial capability of a single, small company.

The potential risks associated with the VO:
- problems with the coordination and division of tasks– openness and trust between team members do not guarantee a good organization of work; something or someone has to watch over this;
- difficulty with correctly understanding and identifying the purpose of cooperation, because it is not always obvious for all the partners (e.g. cooperation in the process of creation of new products, new technology);
- the appropriate selection of partners/employees; mainly in the context of social skills, reliability and responsibility;
- communication difficulties - electronic communication and cultural diversity of employees/partners may impede the proper understanding of content of the message;
- a paucity of face-to-face relations weakens interpersonal relationships and increases a sense of alienation, greater susceptibility to stress, resulting from high uncertainty and competitiveness;
- high specialization within the value chain raises the risk of losing the remaining competencies by the partner company;
- blurring the boundaries of the organization, resulting in problems with the identification of employees with the organization. It affects not only their integration and loyalty, but also the image of

the joint venture in the eyes of customers (Who do I have to deal with as a customer? Who can I contact in case of problems? Who is responsible for the delivered product?);

- problems with loyalty of employees and partners - the lack of a sense of connectedness can encourage risky moves,
- some forms of the VO may lead to more competition than cooperation, for example when choosing specific partners for the implementation of the project, which may exacerbate opportunistic behavior;
- cash flow problems; problems with long-term financial resource planning, particularly for small businesses;
- trouble with the protection of intellectual property.

Modern, very diverse and dynamic work environment imposes a lot of requirements on employees and probably even more on managers. How to reach an agreement on common actions among self-managing and self-organizing mixture of entities? How to build a commitment? According to Charles Handy (1995), virtual organizations need actions based on mutual trust, but it is hard to achieve when employees are treated as workforce, not a valuable resource. VOs are based on information, knowledge and intelligence, which is contained in the minds of employees, but its disclosure also depends on whether employees are attached to the organization. Therefore, it is required to change the contract between employers and employees, from the instrumental to affiliate one.

"People who think of themselves as members (of the organization – B.Cz, P.C.), have more of an interest in the future of the business and its growth than those who are only its hired help" (Handy, 1995, in: Grabowski, Roberts 1999, p. 711).

It is difficult to build such ties without identifying oneself with what is being done. It is even harder to create some common basis in such a diverse environment. But maybe Charles Handy was wrong to write these words in 1995? Perhaps, market mechanism among participants of the VO will operate even more strongly than participation and cooperation? To put it in other words: Collaboration? Yes, but "briefly and without undue sentimentality, now you're a partner/employee, but next time it will be someone else." How is the analysis of organizational culture going to improve our understanding of what is happening in today's organizations?

4. Culture and virtual organization

Integration perspective

In a traditional, managerial approach (Schein, 1992, et al.) organizational culture is defined as a set of values specific to a given organization, which

determine the perception and the way of thinking of its members. On the basis of values people create norms affecting their behaviours, which can be called "organizational practices". These standards are the result of joint learning of organizational participants on how to cope with problems of adaptation to the environment and the internal integration[1]. As a general rule, the practices that perpetuate are the ones that have contributed to the success of the company, and therefore are considered important and worthy of bequeathing to new members of the organisation, thus creating a basic pattern of culture. Since they are repeatedly in use, they are likely to drop out of awareness and become hidden drivers of behaviours (taken for granted assumptions). Culture is therefore a form of collective organizational knowledge that connects and unites members of the organization, and gives meaning to their actions. Values and norms can be equally invented by the group or imposed by the founders, but also enriched and developed by subsequent managers and employees.

Culture manifests itself in various forms of employee behavior, for example in the way of communication, conflict resolution, cooperation, decision making, organizational rituals, as well as in material artifacts like architecture, organization of the premises of the company, employees clothing, logo and other symbols of the company. It means that certain elements of culture can be observed - material and behavioral artifacts, and some remain hidden - basic assumptions, and thus should be deciphered. It is assumed that culture can be consciously shaped by leaders, owners or management. And in this sense, it can be a form of employees' control, through the emphasis on the standards required by management. This mechanism of acculturation is in fact a specific way to educate members of the organization what is right and what is wrong, which can also reduce the costs of coordination and control of labor processes (Czarnecka 2004, pp. 286-287).

The characteristics of culture presented above reflects the so-called integrative approach (perspective), which assumes that the organization should strive for a clear, shared and widespread pattern of desired organizational practices (Martin, 2002, pp. 94-100). Such a model of strong, unified culture was promoted in traditional organizations. It enhanced stability, emphasized the importance of the organizational structure, policies and procedures, awarded behaviors that supported a clearly defined mission, strategy and management actions. In this approach charismatic and self-confident leaders were put in the first place, as a main driving force of the organization.

---

1 The problems of **external adaptation** are related to identifying the purpose of the organization (its mission and vision), i.e.: What kind of products/ services does it want to produce? What kind of needs does it want to satisfy? Who are its customers? On what markets does it want to operate? How should it perform its goals (strategy)? On what basis will the organization shape the relationship with environment? What should be the structure, processes, procedures, systems of control and error detection? The **internal integration issues** are such as: common language and concepts of organizational activity, criteria of belonging to the organization (boundaries of the organization), allocation of rewards and status, nature of authority and relationships (Schein, 1999, pp. 27-48).

On the basis of such culture many companies shaped their identity[2]. It was clear who were their members and what was expected of them, what values they wanted to represent, how they should be perceived by customers. Culture was not only an important transmission belt which strengthened the identification of employees with the organization, but it was also used to build the border[3] between the company and its environment. The integrative approach emphasizes the importance of knowledge and experience gained by the company in the past. Culture is a repository of important skills and strategies that are worth repeating, and participants should use them, reproduce and develop.

The integrative perspective has not lost its significance with the emergence of new types of organizations, but this time the activity of its followers is focused on finding another universal set of cultural patterns which will enable flexibility, rapid adaptation to changes and smooth cooperation within the network. Some researchers suggest a blended type of culture, i.e. a mixture of features of strong and weak culture, which means that in some parts of the organization the patterns should be clear and uniformed, providing stability and predictability, while in others they must be diverse and rich in subcultures, which break schemes and are a source of innovation – but the question is: in what areas and why in these (Grabowski, Roberts 1999, p. 717)?

A slightly different direction is taken by those researchers who are seeking to promote patterns of cultural adaptation based on such values as:
- tolerance of uncertainty
- individualism
- low power distance
- cooperation and partnership
- openness and innovation.

The members of such a culture are required to:
- accept volatility as a permanent element in human life,
- exhibit autonomy in decision-making,
- be highly self-motivated and take responsibility for their own development,
- learn continuously,
- be willing to change patterns of thought and action, to easily establish contacts with customers or partners,

---

2 **Organizational identity** refers to how members perceive their organization, what they feel and what they think about it. It is a common interpretation of what is an organization, what distinguishes it from the others, what is its specific nature. Culture shapes the way of identification, but identity can also affect the appearance of some practices and cultural norms.
3 **The boundaries of the group or organization** can be understood in two ways. Firstly, these are the rules that determine who can and who cannot be a member of the group, what distinguishes us from other groups or organizations. This may reflect symbols, such as dress code, manner of speaking, rituals associated with the admission of a new member, etc. Secondly, there are physical elements such as buildings, interior decoration, logos. The boundaries of groups have perpetuated identity. Nonetheless, it should be noted that the boundaries of culture do not have to take only a material form, they can be derived from our mental representations, as well (Hatch, 2002, p.256).

- exhibit openness in exchange of ideas and knowledge, which is based on mutual trust,
- be tolerant to diversity, which in turn requires the rejection of their own cultural patterns.

These requirements mean that certain cultural patterns are useful as long as they allow us to meet organizational roles, specific to a given place and time. When the roles are changing, for example a traditional manager turns into a virtual enterprise manager, the old patterns of behavior have to be replaced by new ones (Sikorski, 2002, pp. 133-137). The clarity of rules and their acceptance by participants as a basic mental scheme has become a mechanism that facilitates integration, adaptation and cooperation between members of the virtual organization. A suggested pattern of behavior should be then reinforced by appropriate institutional arrangements (e.g., personnel policy, structure, style of management).

However, the postulate of high flexibility in the way individuals perceive and respond to the situation is difficult to implement, because it is in contradiction with the theory of social cognition. This theory says that people are not able to easily jump from one pattern of thinking to another, because they have the tendency to simplify incoming information, to look for such data that strengthen once accepted assumptions, as well as the array of other mental limitations that make us *cognitive misers* (Aronson 1995, pp. 151-154). Therefore, it is unrealistic to expect that employees or partners will continually change their behaviors depending on the situation or they reject past experience when making decisions (Schreyogg, Sydow 2010, s.1252-1254). Building a universal, adaptive culture is a bit like requesting a man to write neatly once with a left and once with a right hand.

Also, flexibility is connected with high volatility of business partners, which nevertheless leads to strong competition, and this encourages opportunistic behavior, such as the transmission of incomplete or distorted information, deceiving, cheating, promoting smart and wily, but not necessarily competent people. Table 2 presents a summary of the differences between culture of the traditional and flexible organization, in the context of the integration perspective.

Table 2. Patterns of behavior in traditional and flexible organizational cultures

Traditional Organization	Flexible Organization
A reliance on a distinctive hierarchical structure to support the coordination of tasks. Such structures tend to encourage the pursuit of individual interest rather than mutual benefit which stifles creativity and innovation.	Continuous reassessment of tasks and assignments through interactions with others. Organizational performance is improved through a "learning by doing" process.
Roles are clearly defined and the boundaries of responsibility clearly drawn in order to improve efficiency. Task specialization and differentiation may lead to efficiency improvement in the short term but differentiation gives rise to demarcation which in turns inevitably leads to conflict among employees.	A network of authority and control based on expertise and commitment to an overall task rather than on clearly defined roles.
Management is concerned specifically with organizing, planning and controlling. Organizational boundaries must be preserved to retain the power necessary to preserve position and status.	Communication to be much more extensive and open. The communication style that is both lateral and diagonal as well as vertical – organization becomes a network.
Emphasis on a vertical flow of information. Decisions are taken at the top. Individuals within the organization lack a sense of ownership and commitment to organizational objectives.	Greater emphasis on commitment to the organization's tasks, progress and growth than on obedience and loyalty. Decision making power is placed on individuals who are best positioned to face challenges within the organization. A greater sense of community and ownership. Individuals become stakeholders in the organization.
A high value is attributed to local knowledge, experience and skill. Geographical constraints have an important influence on determining where the organization is located	Contributors scattered throughout the world. Multi-cultural. Large variability of tasks. Flexible employment.
Members of an organization sell their time rather than their competencies and are expected to pledge loyalty to the organization and its management.	High value placed on expertise relevant to the technological and commercial milieu of the organization. Focus organizational resources and competencies on core activities.
Low need to motivate and mobilize for change	Leadership style with emphasis on consultation, interpersonal and group processes. Emphasis is placed on establishing direction, aligning, motivating and inspiring people.
Desirable characteristics of the employees: command execution, individual efficiency, competition with other employees, specialization.	Desirable characteristics of the employees: independence, openness, communication, innovation, ability to work, willingness to share knowledge, cultural intelligence.

Source: Own elaboration based on: Banahan et al. (2004, pp.126-127).

Fragmentation perspective

The radical concept of the temporary and ephemeral organization without borders despises rules that would perpetuate solutions worked out in the past. Procedures, standards, and structures do not deserve attention, because they are archaic in themselves. The hyper-turbulence of environment requires companies to improvise rather than copy historical practices. It is important to create a dynamic potential of the organization, the continuous reconfiguration of knowledge and other resources on the basis of ad-hoc made decisions. Old patterns of behavior and decision making cannot help to solve new problems, so nothing should remain for long in organizational memory. Organizational forgetting is more important than organizational learning and remembering. The same thing applies to the identity and boundaries of the organization, which in highly flexible companies are considered to be barriers to the flow of information and knowledge (Schreyogg, Sydow 2010, pp. 1251-1252).

Such a philosophy of action is perfectly blended with the so-called fragmentation perspective, which assumes that culture is an ambiguous phenomenon, unique and characterized by the presence of many subcultures. However, the boundaries of these subcultures are not fixed and are constantly changing, creating anew in other configurations. That liquidity stems from two assumptions:

1) People forming a given organization differ in their individual identity which comes from belonging to multiple groups at work and in their personal lives. This in itself makes their perception of organizational problems entirely dissimilar. It can be said that the identity of individuals is diffused among these groups (*blurred or fuzzy identity*).

2) Individuals may identify themselves with different subcultures, depending on the debate. Therefore, subcultures are a temporary coalition, members of the organization participate in it only to solve a particular case, which does not necessarily imply agreement or disagreement on other problems. Nor does it mean that in the future subcultures must have a similar shape. So we can say that agreeing on organizational solutions is an ongoing process of continuous creation and there is not one, stable *modus operandi*. While the traditional approach emphasizes the role of culture as an integrator which provides a consensus on the issues important to the organization, the concept of fragmentation eliminates the notion of a general consensus and common patterns of perception. The problem itself is in the spotlight, not the standard by which it would be solved. Therefore, the boundaries of subcultures are uncertain, fluctuating, blurred, nested and overlapping (Martin, 2002, pp. 104-108, 152, 163-166; Hatch 2002, pp. 231-232).

It also seems that the authors of this concept elegantly omit the obstacle named "limited perception", assuming that various reference groups equip their members with a variety of ways of interpretation, because each group has to solve different kinds of problems, and distinct issues are important to each of them. This background allows individuals to switch between various interpretations but does it not lead to an intrapersonal conflict?

According to these assumptions, the cooperation between the partners of the VO can take different forms - legal boundaries are not important, it is important that there are no cultural barriers in the form of a distinct identity.

Unfortunately, the fragmentation approach does not provide comfort to managers, because they do not have enough power (influence) to establish some benchmarks of behavior, even in a case such as trust. According to the assumptions, each issue should be settled by a current coalition (a temporary subculture). As in the case of integrative perspective, the question arises: whether the total uncertainty, instead of openness and cooperation will not contribute to the severity of opportunism?

The approach mentioned above deftly describes the diverse world of virtual organizations by explaining how cooperation is possible through constant reconfiguration of partners and self-organization, but it does not allow to answer the following question: what are the sources of failures or successes of the VO and how to operate efficiently in this environment?

Differentiation perspective

Are patterns of thinking and action disappearing, becoming blurred, because they are too often changed to create a stable pattern? Are the identity, culture and thus the boundaries of the organization still needed for something? Can we imagine the functioning of modern business without borders?

The concept of hyper-liquid organization, however, will remain the realm of myth, because the organization as a social system will always be something other than its surroundings. Blurring the borders would mean that one of these concepts would lose its meaning. G. Schreyögg and J. Sydow argue that:

" According to systems theory, the basic relationship of social systems is the interaction with their environment. A differentiation between an organization and its environment implies, at the very least, that organization means something different from environment" (Schreyögg, Sydow, 2010, p. 1253).

Complexity is one of the factors differentiating these concepts. Environment is always something more complicated than the organization. Social systems are created as a result of the reduction of the complexity of the environment to a level that people can master and control. It is accomplished by constructing and replicating, in the daily manner, the internal world of less complexity.

This process is the basis for determining the identity of the system. Building worlds simpler than setting ones means interpreting events, giving importance to what people experience. On this basis, cognitive maps are formed in our minds. These maps are the basis for understanding the phenomena and events (e.g., what is the competition, what is working together, what is the market, etc.). Thanks to them we can decrypt the incoming information, and even more-detect objects and situations. Organizations, even those operating in the hyper-turbulent environment, cannot exist without referring to past experience. One cannot break up with their own past, since schemes of perception and action are hidden in it. Without them it is impossible to function.

Even if the entire organization is not an important point of reference, a group that an individual belongs to still remains such a point of reference. Most commonly, an individual interacts with other group members, and the group processes shape individual identity, through influencing one's behavior. The fragmentation theory ignores the fact that certain groups may be more important to us than others, and thus more strongly influencing our behavior. The environment we operate in can induce individuals to make forced choices, for example: when my organization is diffused and so really there is no reference group, my attention will be directed more to people outside the company. The question arises: what could this mean for people's behavior in your organization?

The differentiation approach assumes that the organization is a common cultural pattern. However, it is not so uniform or widely spread as according to the integrating approach. Norms and values arising from within the sub-groups' daily routines are a much more important point of reference. Sub-groups identify themselves as separate in relation to the other parts of the organization. They have common problems to solve and they work in their unique way. Groups can be based on functions, management levels, professions, or geographic territory. While building a specific identity, they shape their boundaries at the same time. That is how subcultures are created. They can have different relationships to each other and to the overall organizational values (Hatch, 2002, p. 228-229, Martin s. 101-104). Table 3 illustrates possible relationships between these concepts.

Table 3. Linkages between cultural identification, subculture identification, and behavioral outcomes

Identification With The Dominant Organizational Culture	Sub-cultural Identification: Martin and Siehl (1983)	Behavioral Outcome	Research Areas And Sample Studies
High	None	Behavioral consensus around core cultural values	Strong culture o rganizations Deal and Kennedy (1982) Denison and Mishra (1995) Efraty and Wolfe (1988) Peters and Waterman (1982)
High	Enhancing	Behavioral synergy around core cultural values	High-performance teams or "clans" Katzenbach and Smith (1993) Lim (1995) Wilkins and Ouchi (1983)
High	Orthogonal	Situational behavior based on dual influence of organizational and sub-cultural identification	Negotiating multiple identifications Ashforth (1998) Hernes (1997) Pratt (1998) Rousseau (1998)
Low	Orthogonal	Behavioral consensus around core sub-cultural values	Strong geographical, functional, sub-cultural differences Gregory (1983) Jermier et al. (1991) Rentsch (1990)
Low	Countercultural	Behavioral consensus around core sub-cultural values contradictory to overall organizational culture	Cultural resistance and sabotage Alvesson (1993) De Roche (1994) Linstead and Grafton-Small (1992) Robinson and Bennett (1995)

Identification With The Dominant Organizational Culture	Sub-cultural Identification: Martin and Siehl (1983)	Behavioral Outcome	Research Areas And Sample Studies
Low	None	Individualization	Ambiguous or "weak culture" organizations, virtual organizations Cohen (1997) Martin and Meyerson (1988) Smith and Kleiner (1987)

Source: Own elaboration based on: Bligh, Hatch (2011, p. 4).

According to M. Bligh and M. Hatch, analyzing interdependences and processes that occur between the identity of the individual units and identifying with the subculture and organizational values sheds light on the source of a wide variety of behaviors and cultural patterns. Identification with the organization and/or subculture highlights the process in which the individual agrees to seemingly contradictory cultural forces built around certain beliefs, through translating common patterns of thinking into the local language. By accepting, rejecting or modifying individual values, the individual builds the basics of his/her identity as a member of the organization. He/she also contributes to the development of different meanings and cultural varieties within a single company. Interesting research questions that are born in this area are as follows:

1) What is the influence of the characteristics of the group on both the process of identifying an individual as well as on the results of the unit?
2) What is the strength of the relationship between subcultures and general culture in different work environments?
3) What is the impact of a counter-culture on efficiency behaviors in organizations (Bligh, Hatch 2011, p. 41-43)?

The concept of subcultures is based on search for areas of convergence and divergence between the different cultural patterns in place. It seems to be a perfect approach to cultural studies in VOs. In this case a networked culture can be a general pattern, and individual participants may represent subcultures. But, subculture may also be internally differentiated. Although the differentiation approach reflects heterogeneity patterns of action, allowing us to describe cultural differences in virtual organizations, it cannot describe, in a proper way, the dynamics of transformations resulting from the variation of organizational partners. This is perhaps a potential area of future research.

5. Conclusion

Culture, understood as a mind programming, is still an important factor in shaping individual and group behavior in organizations. Without culture, one cannot talk about building any form of collective identity. And this process allows us to distinguish the organization from its surroundings. If one asks a question: why do dynamic organizations need culture?, the correct answer is: so that we can still call them "organizations". However, the way of understanding and analyzing culture in diffused, virtual companies must change. The reference point for such an analysis will no longer be a homogeneous whole, but a heterogeneous group.

We hope that the concepts of culture and related problems presented in this paper prove to be an inexhaustible potential for research on collective behavior patterns and their impact on the functioning of the modern organization. At the same time, the diversity of approaches shows the wide possibilities for the interpretation and description of the phenomenon. Joanne Martin, in her book "Organizational Culture. Mapping the Terrain " encourages researchers to equal and simultaneous application of all three approaches, to extend the perspective of analysis. Each of the approaches sheds light on other aspects of culture (Martin 2002). At the end we wish to indicate some problems of research which, we believe, are still under discussion.

1) If we accept the integration point of view, how do we change the current patterns towards the adaptive culture? What institutional processes should be strengthened?
2) What organizational practice, based on the value of adaptive culture, will develop in VOs? What form will it take in different types of virtual organizations?
3) How do virtual organizations solve problems of the external adaptation and internal integration? For example, how to negotiate objectives, how to formulate the network level strategy, how to determine control mechanisms, etc. What form does it take in a different types of VOs?
4) How will electronic communication influence language, personal relationships, and appropriate perception for members of the VO?
5) If we consider the structure of the virtual organization as a cultural artifact, what values, attitudes, and assumptions will emerge under their influence? This is a problem that has already been pointed out in the above parts of the article. Namely, do virtual organizations actually foster collaboration (which is widely postulated), or do they rather strengthen the opportunistic behavior ?
6) Who are organizational heroes now, do leaders still remain heroes?
7) What are the areas of cultural convergence and divergence in different forms of virtual organizations? What can impact them? How will

they affect the efficiency of behaviors within each subculture and the whole network of partners?

References

Bligh M. C., Hatch M. J. (2011). If I Belong, Do I Believe? An Integrative Framework for Culture and Identification. *Journal of Psychological Issues in Organizational Culture, 2*(1)*,* 35-53.

Brilman J. (2002). *Nowoczesne koncepcje i metody zarządzania.* Warszawa: PWE.

Camarinha-Matos, L., Afsarmanesh, H. (Eds.) (2004). *Collaborative Networked Organizations: A Research Agenda for Emerging Business Models.* Hingham, MA, USA: Kluwer Academic Publishers.

Czarnecka B. (2004). *Dylematy badania kultury organizacyjnej. In: Nalepka A. (Ed.). Organizacje komercyjne i niekomercyjne wobec wzmożonej konkurencji i rosnących wymagań konsumentów.* Tarnów: Wyższa Szkoła Biznesu w Tarnowie.

De Wit B., Meyer R. (2007). *Synteza strategii. Tworzenie przewagi konkurencyjnej poprzez analizowanie paradoksów.* Warszawa: PWE.

Grabowski M., Roberts K. H. (1999). Risk Mitigation In Virtual Organizations. *Organization Science, 10*(6)*,* 704-721.

Grudzewski W. M., Hejduk I. K., Sankowska A., Wańtuchowicz M. (2007). *Zarządzanie zaufaniem w organizacjach wirtualnych.* Warszawa: Difin.

Hatch M. J. (2002). *Teoria organizacji.* Warszawa: PWN.

Koźmiński A. K., Obłój K. (1998). *Zarys teorii równowagi organizacyjnej.* Warszawa: PWE.

Krupski R. (2005). *Zarządzanie przedsiębiorstwem w turbulentnym otoczeniu. Ku superelastycznej organizacji.* Warszawa: PWE.

Leibold M., Probst G., Gibbert M. (2002). *Strategic Management in the Knowledge Economy. New Approaches and Business Applications.* Erlangen, Wiley.

Martin J. (2002). *Organizational Culture. Mapping the Terrain.* Thousand Oaks: Sage Publications, Inc.

Masłyk – Musiał E. (2003). *Organizacje w ruchu. Strategie zarządzania zmianami.* Kraków: Oficyna Ekonomiczna.

Morgan G. (1997). *Obrazy organizacji.* Warszawa: PWN.

Preston-Ortiz D. (2011). The Effects of Trust- and Leadership-Based Practices in Virtual Alliance Outcomes. *Journal of Psychological Issues in Organizational Culture, 2*(2).

Schein E. H. (1999). *The Corporate Culture Survival Guide. Sense and Nonsense About Cultural Change.* San Francisco: Jossey-Bass Publishers.

Schreyögg G., Sydow J. (2010). Organizing for Fluidity? Dilemas of New Organizational Forms. *Organization Science, 21*(6), 1251-1262*.*

Senge P. M. (2000). *Piąta dyscyplina. Teoria i praktyka organizacji uczących się*. Warszawa: Dom wydawniczy ABC.

Sikorski Cz. (2002). *Kultura organizacyjna. Efektywnie wykorzystaj możliwości swoich pracowników*. Warszawa: Wydawnictwo C. H. Beck.

Stabryła A. (2009). *Doskonalenie struktur organizacyjnych przedsiębiorstw w gospodarce opartej na wiedzy*. Warszawa: Wydawnictwo C. H. Beck.

Śliwa K. (2001). *O organizacjach inteligentnych i rozwiązywaniu złożonych problemów zarządzania nimi*. Warszawa: Oficyna Wydawnicza WSM SIG.

Warnecke H. (1999). *Rewolucja kultury przedsiębiorstwa. Przedsiębiorstwo fraktalne*. Warszawa: PWN.

Weick K. E., Quinn R. (1999). *Organizational change and development. Annual Review of Psychology,* 50, 361-386.