COMPATIBILITY BETWEEN KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL DESIGN

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Abstract. *Constant changes in the business environment, business processes or products, are forcing organizations to reorganize, to search for new organizational forms, but also to establish clever market positioning that creates a competitive advantage. Organizational design becomes important in order to find the most effective structure, which would cope with ever-changing business environment; and knowledge management maximizes the utilization of knowledge as one of the main sources of competitive advantage in the market. The purpose of the paper is to explore the importance of compatibility between knowledge management and organizational design. Knowledge management is recognized as an essential element of business, and extensive efforts are being made to build and develop this process. Numerous improvements are possible in the area of organizational design, such as redesigning existing models and developing new ones so that knowledge management practices can be applied as easily as possible. The research findings would most benefit managers, who can analyze their businesses and determine areas where change is needed, regarding organizational design and knowledge management, which influences business performances.*

Keywords: *business organization, organizational design, organizational structure, knowledge management*

1. INTRODUCTION

The importance of knowledge as a resource and a factor for organizational success was highlighted at the end of 20th century, by the intensive development of information and communication technologies. Changes in social and technological environment of organizations have led to an increased importance of intangible resources, especially knowledge as a strategic element. Knowledge management can be defined as a business concept that aims to create organizational knowledge (Mihajlovic, 2014).

Organizational knowledge management is a modern technique of developing organizational strategy for successful market competition (Al-Laham, 2003). Knowledge management is a business concept that enables organizational success and strong competitive advantage (Al-Laham, 2003). Knowledge as organizational resource should build the foundations of long-term sustainable competitive advantage.

In recent years, the field of knowledge management has been intensively researched by many authors, considering new market trends and new technologies that are greatly changing organizations. Based on this, the concept of a new organizational design is the learning organization. Knowledge management requires an organizational design that is flexible, shallower than traditional bureaucratic design, and at the same time able to provide the necessary level of control to keep the most important knowledge within the organization.

Thus, although there is no common conclusion of researches conducted so far, creating organizational forms that will be able to support knowledge management and technology development, is the future challenge. The implementation of knowledge management as a business concept will become necessary for almost all organizations, regardless of their activity and size, to develop and maintain their business in the changing market conditions.

2. CREATING ORGANIZATIONAL DESIGN

Organization design, as opposed to organizational theory (Galbraith, 2014) is a set of prescribed knowledge. Organizational design largely determines the organizational success. In today's extremely dynamic environment and rapidly changing conditions, the survival of organization is conditioned by its design. Therefore, complex environmental conditions are transferred to organizational solutions, thus creating complex organizational structures, which enable quick adaptation to market conditions.

Organizational design is a fundamental and a continuous decision-making process on a range of issues related to the shape, overall system and characteristics of organization (Galbraith, 2014). Managers must constantly review it and strive for the best way of organizing, which is their continuous and enduring task. Organizational design must provide the rational use of all organizational resources (Sikavica & Hernaus, 2011). Apart from being a process, organizational design can also be viewed as a state, ie. the result of the organizing process. Every organization is created, maintained and innovated in the process of organizing. Organizational design can be defined as the result of shaping and aligning all elements of organization, in order to accomplish an established mission (Hernaus, 2009). It is an extremely important process, and should be considered in all parts of organization, in every organizational unit (Hernaus, 2009).

The biggest question when designing organizations is where to start. Strategy affects the structure of organization that defines key people and they key processes. Key people are assigned roles and responsibilities. An information system is needed to provide people with the right information at the right time, so that they can do their jobs well. Incentive measures and a reward system are established to make the organization successful and training and development offer employees the opportunity to develop and to see their career paths.

Today, two groups of organizational models stand out in particular: traditional models (often referred to as bureaucratic) and organic (adaptive) models. Jay Galbraith's Star Model and the McKinsey 7S Framework are of interest, as representatives of the most widespread models of organizational design, and representatives of new ways of organizational design.

3. KNOWLEDGE MANAGEMENT

Knowledge management is a term that denotes organizational business philosophy, which recognizes knowledge as an important resource, well managed in order to have organizational benefit (Sabri, 2005). Knowledge management is a group of tools and approaches aimed at collecting, using and preserving knowledge (Jennex, 2007). Nowadays, it is obvious that one of the most important organizational resources is knowledge, as a source of organizational competitive advantage. Research and application of knowledge management is a large complex area, which is in constant development.

Knowledge management is an approach to adding or creating value by more actively fostering and assessing know-how, whether it is located within organizations or outside it (Carlucci et al, 2004). Lee and Yang (2000) offer a definition of knowledge management theory as access to all information within an institution, which allows individuals to apply relevant information to existing knowledge in order to create knowledge. Knowledge management is the explicit and systematic management of key knowledge and the processes of its creation, collection, organization, diffusion, use and exploitation (Anand & Singh, 2011). Chuickha (2016) in her paper defines knowledge management as a process consisting of five interdependent activities, which operate in a circle: acquisition, transfer, application and creation of new knowledge.

This discipline of management is only a little over a quarter of a century old, and is used in several different areas, so it is difficult to classify it entirely in one of the traditional divisions of management. Due to the growing importance of knowledge as a resource, the interest of scientists in this field is growing, so further development of this discipline is expected.

There are four key factors in knowledge management that Omotayo (2015) highlights: knowledge, people, processes, and technology. Knowledge is a basic prerequisite for knowledge management because without the knowledge that will be managed, there would be no knowledge management. Knowledge is generally understood as the collection and/or construction of information and is available in the form of theories, processes, systems or in the form of opinions, ideas and analyzes. People or employees are another factor on which the entire knowledge management depends, because they are the ones who create the process of knowledge management from start to finish, participate in it and implement it. Processes, as the third component of knowledge management, are defined as mechanical and logical instructions for doing work in organization. Technology is a key driver and fundamental element of the knowledge management plan. With the development of information and communication technologies, knowledge management is realized through various technological solutions that greatly help the processes of storage, sharing and research of knowledge.

Applying knowledge is the first process that can bring improvements to an organization's business. Unfortunately, there is always a gap between what organizations know and what they do. There are several reasons why the acquired knowledge is not applied. It can be the lack of reliability in knowledge sources; lack of time to use new knowledge, or risk aversion (increased risk of error) (Gray & Meister, 2004).

4. THE RELATIONSHIP BETWEEN ORGANIZATIONAL DESIGN AND KNOWLEDGE MANAGEMENT

When implementing knowledge management, the organization is constantly redesigned and reshaped. Flexible organizational structure is necessary. People should be open to change at all levels, especially leadership. Emerging strategy should be ready to respond to new conditions, quality-oriented processes, enable testing, implementing change, and a compensation system that encourages innovation, the development of new ideas and knowledge.

Knowledge management practices lead to the need for organizational design change, which must be evolving. The increased knowledge and the impact of new knowledge lead to a constant organizational transformation. Hierarchies are perceived as barriers to the transfer and development of knowledge, but on the other hand the need for coordination and control increases. It should start with the removal of hierarchical levels; creating shallow organizational structures that enable better two-way communication, then changing the chain of command and implementing the process of employee empowerment. After that, it is desirable to create a compensation system that will encourage entrepreneurship and innovation of employees. The communication structure must also be redesigned to allow horizontal communication. The whole process of reshaping should be constant and self-renewing.

The N-shape of the organization is often mentioned in the literature as a new form of organization compared to the traditional M-shape. The N-shape is characterized by (Hedlund, 1994, Soderlund&Tell, 2009):

- Merging activities, combinations instead of division.
- Temporary set of people or units instead of permanent structures.
- The importance of staff at „lower" levels in inter-functional, intra division and international dialogue instead of coordination exclusively through „managers" at the top.
- Lateral comunnication and dialogue instead of vertical communication.
- Top management as a catalyst, architect of comunnication (technical and human) infrastructure and protector of knowledge investment instead of supervisor and resource allocatormeer.

A comparison of M and N organizational shape is shown in Table 1. Only the most primitive organisms develop by division, so it can be drawn analogously that the M-shape is the most primitive organizational shape that is not suitable for new business needs.

Table 1 Comparison between N and M organizational shape

	N-Shape	**M-Shape**
Technological interdependence	Combination	Division
Human interdependence	Temporary relationships, between same group of people	Permanent structures, changeable group of people
Critical organizational level	Middle	Top
Network communication	Lateral	Vertical
The top management role	Catalyst, architect, protector	Supervisor, allocator
Competitive area	Focusing, depth economy, combined pieces	Diversification, economies of scale and scope, semi-independent parts
Basis organizational form	Heterarchy	Hierarchy

Source: Based on Hedlund, G. (1994). A Model of Knowledge Management and the N-Form Corporation, Strategic Management Journal, 15, Summer 1994, 73-90, p.83, adapted by author

The strengths of M-shape and the weaknesses of N-shape are shown in Table 2.

Table 2 Strengths of M-shape and the weaknesses of N-shape

N-Shape weaknesses	M-Shape strengths
Fundamental, radical innovations that have not been realized only by (re)combination and experimenting	Radical innovations through specialization, abstract articulation and investments outside current competences
Long time to acquire new fundamental knowledge because of restrictions on old recruitment and acquisitions	Rapid infusion and diffusion of drastic new perspectives through people, acquisitions and separations
Difficulties in coordination of huge projects because of relieving to small groups	Ability to design large systems through complex articulation and tightly controlled complexity
"Competitive traps" through overly limited development paths	Risk management through "competitiveness portfolio"
Prejudices for the internal exploitation of ideas	Freedom of using the most effective ways, intern or extern
Difficulties in changing the overall vision due to internal managerial promotion	Change of basic direction and culture through external competences of top management
Strategic vulnerability due to strong focus and internal connections	Strategic robustness because of quasi-independent parts

Source: Based on Hedlund, G. (1994). A Model of Knowledge Management and the N-Form Corporation, Strategic Management Journal, 15, Summer 1994, 73-90, p.83, adapted by author

In the newly formed organizational shapes that are suitable for the development of knowledge management, teams that bring together people from different departments play an important role, which gives them a better insight into the overall situation in organization. A special feature is that these teams are self-forming and self-managing: they come together depending on existing needs and do not have a clear leader. These characteristics allow them to take responsibility for performing special tasks and to be adequately rewarded for it. The middle level of management is most important in these forms because it coordinates the performance of work, due to greater responsibility they take on.

Organizational culture, although not an element of organizational design or knowledge management, has a crucial impact on the capabilities and performance of organizations, especially in the implementation of knowledge management.

5. CONCLUSION

Knowledge management as a phenomenon of modern business is a relatively new concept that has aroused the interest of scientists and researchers in the last thirty years, and there has been a constant growth of interest in this topic. The turbulent business environment requires the use of all available resources for the most effective market struggle. It is the frequent changes in the environment and business processes or products that force organizations to frequently reorganize and search for new forms of organization. Therefore, the concepts of organizational design and knowledge management come into focus: organizational design becomes important to search for the most optimal design of organization that will be ready to deal with frequent and sudden changes in the environment, and knowledge management for the most optimal use of knowledge as one of the main resources, a possible source of competitive advantage.

Thus, although there is no unique conclusion of the research conducted so far, the fact is that there is a need for contemporary organizations to introduce knowledge management and adapt their organizational design to it. The most common changes that occur in the formation of organizations are reflected in changing organizational structure, hiring people who are willing to learn, improve, work as a team and share knowledge, redesigning processes that become automated, creating an emerging strategy involving employees at all levels, and change a compensation system that promotes entrepreneurship and employee accountability. The harmony of elements is of the utmost importance when designing an organization, because organizational success depends on it. These emerging forms of organizations must simultaneously achieve two key criteria — be deprived of unnecessary hierarchical levels to allow for unhindered lateral communication, but at the same time allow for a sufficient level of control. The role of teams is becoming increasingly important and teams are becoming self-forming and self-managing. Due to these changes in all elements of organizational design, new organizational forms are created that are individual, because they differ in many ways and cannot be viewed collectively like traditional organizational forms that were universal and easier to apply.

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