

ORGANIZATIONAL STRUCTURE IN THE FUNCTION OF CREATION OF ADDED VALUE

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ABSTRACT:

The Republic of Croatia is about to enter the European Union, hence its economic system will become more open, and subsequently an integral part of the European economic system.

The aim of economic development of the European Union is established by the Lisbon Declaration. This commitment is in line with the development of a 21st Century knowledge-based economy, where intellectual capital is its particular manifestation.

In parallel with the development of a knowledge-based economy, knowledge-based society is also developing, as with the parallel development of economic organizations based on the concept of learning organization.

The actuality of the current theme arises from the hypothesis that only the organizational structure, in which there is no inhibition to destroy value, is able to create new value that provides the necessary competitiveness and development in the harsh conditions of a globalized world.

The paper examines the efficiency of a complex business-production system, which is the key concept in the creation of an organizational structure that contributes to value added creation and that has a key role in raising the business-production system efficiency, and thus the competitiveness of the economic system in the world market.

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Introduction

The quality of products and services is determined by the degree of incorporated knowledge and creativity into these products and services. That relates especially to business-production systems exposed to the international market, and thus forced to introduce modern approaches and methods of systems performance as well as measurement of value creation (value added) at all levels of business performance (Drucker, 1995).

Due to its characteristics and characteristics of its final product, the research in the part of industry is considered a complex business-production system. The complexity of that system comes primarily from the complexity of many internal and external causal interactions of all the processes inside the system, but also from interactions of the system and the processes in its surroundings. Research has proved that value is created in both, internal and external processes, but in some parts of those processes value is also destroyed.

The application of modern approaches and methods in complex business-production system – which is the subject of this article – was highly influenced by the modern definition of a concurrent product. According to that definition, the concurrent product is a technical system with high level of information and automation and a high capital value. Due to its specific conditions of exploitation, it is subject to very rigorous tests of quality. Modern business-production system requires technologically propulsive preparation and production that also influences the development of the stakeholders and requires application of a complementary development model as a condition for breakthrough on the global market. That creates conditions for a rational enterprise and creation of wealth (Tominović, 2000).

Value added is measured by business results, the quantity of knowledge and quality of information incorporated in the product. The newly created value added also incorporates the work of human capital, and thus raises the company's market value. Leveraging the market value of a company or a system, value creation, value creation efficiency, assessment of the real value of the business production system, which includes also intellectual capital – these are the basic issues and concerns of contemporary business reality.

New terms have to be introduced to contemporary business-production system: intangible assets, intellectual capital, knowledge management, overall development of business relations, customer satisfaction, or briefly, the new economy.

Answers to the above problems, demonstrated on the example of a specific business production system, and are closely related to following terms, contents and solutions to: measurement of “intellectual capital efficiency”, value creating working environment, working and communication culture, transfer and application of new knowledge. All this implies application of the ‘Learning Organization’ concept, with all its disciplines.

Basic Conditions for the Application of the “Learning Organization” and the “Value Creation Efficiency Analysis”

Applying new approaches and methods is not easy, in spite of the remarkable efforts of some individuals. First of all, it is necessary to recognize all the potentials of the basic organizational structures of the system, which interact and thus make the system work. Those basic structures can be divided into creative, symbolic and physical ones; whereby the managerial structure is the one providing cohesion, connecting and aligning through its programs and decisions towards a defined strategic goal that is measurable.

Chosen Approach

The basic concept of the chosen approach comes from the consistent application of the “systems theory and process approach”, with an accent on rational performance of business processes and technology, including the ‘Learning Organization’ concept and its five disciplines. The effectiveness of the procedure of processes affects the effectiveness of business technology, and also the effectiveness of the ‘Learning Organization’ approach. Basically, the focus is on the proper transfer, application and creation of new knowledge in organizations (Senge, 2001).

The Process of Transfer, Application and Creation of New Knowledge

The process of knowledge transfer from nearer and wider surroundings consists of five phases, with built-in managerial and verification interactions. Each phase is a sub-process with inputs, activities, resources and outputs (results). Each output is verified from the professional point of view and documented with regard to quality, working culture and established communication rules (Tominović, 2000).

In professional problem solving, the optimal solution is searched for through teamwork. The optimal solution is the best one provided by the expert teams in given circumstances.

A suitable organizational model is vital in order to activate the existing intellectual potential (North, 1998).

The Model of Organizational Structure

Based on an analyses of business efficiency and effectiveness of complex business-production systems at the researched part of the industry resulted in the conclusion, that the current systems were not optimally structured and thus do not achieve the expected synergic effect. The synergic effect can be divided into technological, managerial and psychological effects. The analysis also implied that the existing managerial structure should be redefined in alignment with some up to date global model, and also the necessity of catching up trends in IT development as well as the development of knowledge as a determining factor in the most developed and, thus, key systems (Binner, 2004).

Analysis of complex business-production systems of the industry implies that linear (hierarchical) and matrix structure are not suitable for dynamical measurements of intellectual capital efficiency. The former because of insufficient lateral communication, the latter due to conflicts at the point of realization, occurring at the crossroads between the “vertical and horizontal” line due to differences in knowledge application of the ‘Learning Organization’ and non-synchronized decisions of two professional and organizational structures.

The most suitable model in this case is an organization of interconnected fields or levels known as Hypertext Organization. It is based on a linear organization as a new structure of internal business systems, on a project team layer, and a knowledge-based layer. This knowledge-based layer will be referred to as “connecting structure”.

The Learning Organization Concept

In this case, the Learning Organization Concept was based on a well defined vision. Created mission statement and measurable strategic goals were worked out by joint efforts of the entire managerial structure. After defining vision and an according mission, a program for the education of management (time limit) was worked out, which was to be the base for the realization of the “Learning Organization” Concept? The Program included the application of the Learning Organization Concept at all management levels. The term ‘Learning Organization’ implies an “organizations in which people continually develop their abilities to create results

they truly desire, in which new ways of thinking are developed, in which individual and shared aspirations are freely stated, in which people continuously learn how to learn together,” or, in short, “organizations that constantly increase their ability of creating their future” (Senge, 2001).

Implementation of the Knowledge Economy and new organizational structures in the Technical System with high Capital Value

Intellectual capital is being created in processes inside the system and its value creation can be measured with the help of modern measurement tools (Tominović, 2006).

The example of the impact of organizational structure in the creation of new value is shown through a 9 years research conducted from 1999 to 2007 of the operation of complex business-production system in industry, whereby an analysis was carried out of the implementation of different types of organizational structures and of their impact on business results and the creation of new value in the knowledge based economy (Marjanović, 2009).

The issue of competitiveness in today's markets is extremely important since the market conditions in the globalized world are extremely harsh. There is an intense battle between the many competing organizations on the market, which constantly brings into question the very existence of these organizations. The issue of efficiency of a business-production system and of an economic system as a whole is closely related to competitive ability. It is difficult to separate efficiency from the competitive ability of the organization. The fundamental competitive advantages: a satisfactory price, high quality and short product delivery time are defined on the example of a complex business-production system.

The system that can provide these values to the customer achieves a superior market position. New value, in this analysis, which is created in the production process, manifests itself on the market through the reduction of the time required for the construction and delivery of products or services. The research conducted indicates at the result of creation of new value in dependent processes, which are manifested on the market through the reduction of the required effective working hours (EH) and labor costs for the production of a modern product and therefore a shorter time of construction.

The calculations of the basic factors of creation of new value relevant for this work have been shown on the example of the analyzed complex business-production system in manufacturing industry. These are: the intellectual capital efficiency (ICE) and the duration of product construction through the required effective working hours (EH), in other words, the achieved productivity.

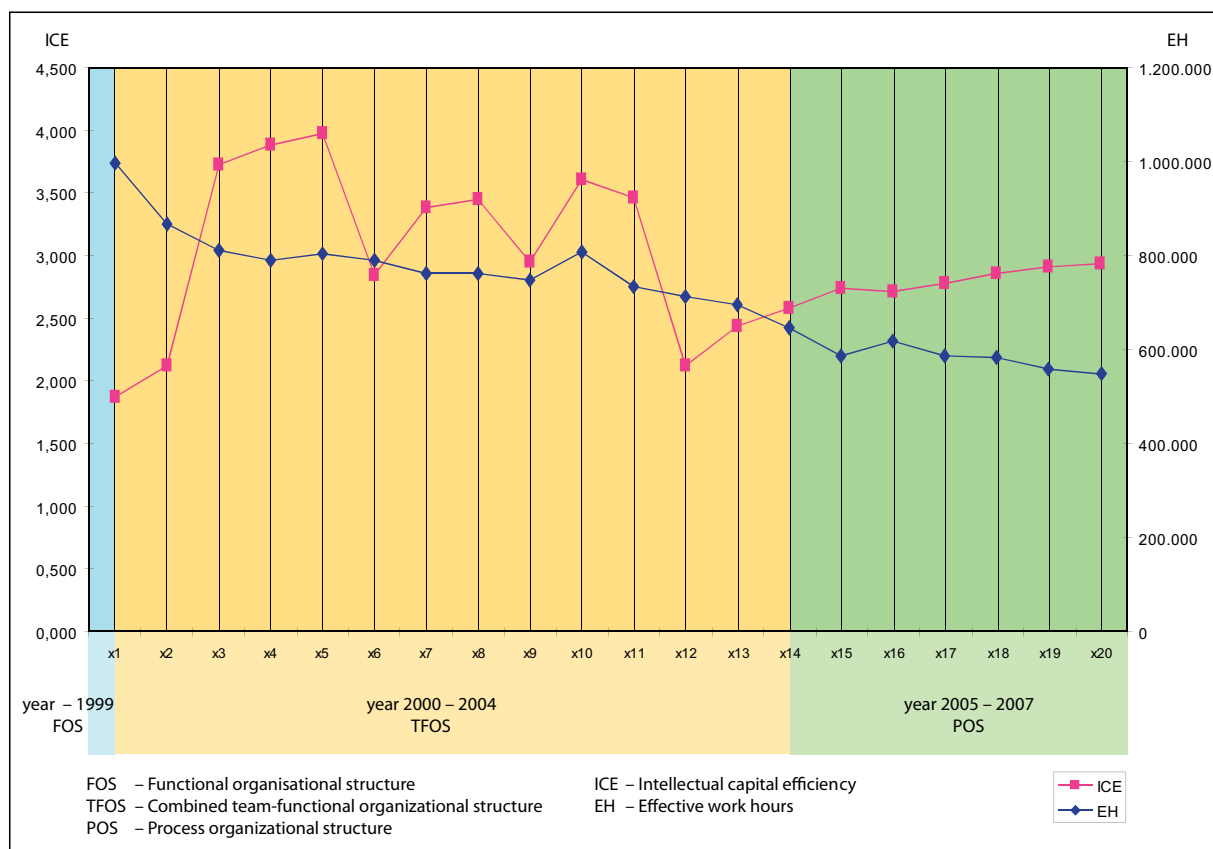
The parameter of the intellectual capital efficiency ICE was taken as a criterion to determine the operating performance, and for the company's business to be considered successful, this parameter must have a minimum value of 2.00. In table 1 ICE and EH values are visible through the stages of implementation of different types of organizational structures in the period from 1999 to 2007.

Table 1: ICE and EH values from 1999 to 2007

Year	Product	ICE	EH	Year	Product	ICE	EH
1999	x1	1,876676	1002531	2003	x11	3,47726	736285
2000	x2	2,126341	873155	2004	x12	2,126372	718188
2000	x3	3,744118	816984	2004	x13	2,45	700000
2000	x4	3,909509	792971	2005	x14	2,6	650000
2000	x5	3,996955	809092	2005	x15	2,75	590000
2001	x6	2,854144	794818	2006	x16	2,72	620000
2001	x7	3,397034	767553	2006	x17	2,79	590000
2002	x8	3,465325	765236	2007	x18	2,87	585000
2002	x9	2,971125	750059	2007	x19	2,92	560000
2003	x10	3,62264	810801	2007	x20	2,95	550000

Resource: Business analysis of a complex business-production system from the years 1999 to 2007 (Marjanović, 2009)

Figure 1: Graphical representation of ICE and EH in relation with the implementation periods of organizational structures for the year period 1999 to 2007



Resource: Business analysis of a complex business-production system from years 1999 to 2007 (Marjanović, 2009)

The first characteristic phenomenon is that from the moment of implementation of the combined team-functional organizational structure (TFOS) the indicator of operating performance ICE is within the satisfactory limits of performance exceeding 2.00, while in the period of functional organizational structure (FOS) the indicator was below this limit. Another characteristic phenomenon is the constant reduction of the effective working hours (EH) starting from the implementation of TFOS toward the process organizational structure (POS), which indicates a significant impact of modern organizational structures (MOS) on the efficiency of business and production processes within and outside the system. By shifting from the functional to the process organizational structure the organizational inhibitions or barriers were gradually eliminated, the negative characteristics of functional organizational structure, which inhibited the smooth flow of a production process.

The raising the efficiency of the very process in the organization through the elimination of inhibition resulted in an increased efficiency and reduced labor costs and effective working hours needed to build the product. Processes have become faster and therefore economically advantageous. The effect of modern organizational structures on the creation of new value is twofold. Firstly, it is in direct function of the creation of new value in a way that the cost reduction increases the value added (VA). Secondly it increases the efficiency of use of available resources, it reduces operating costs and effective working hours, which also shortens the time of the production process and ultimately, the product delivery time. This manifests itself as a competitive advantage and secures a superior position on the market.

CONCLUSION

There are many different opinions, even controversies, about the true value of particular business-production systems. Evaluation, based on traditional organizational structures and on traditional indicators only, could lead to wrong conclusions and consequently, wrong decisions, especially if the system has a specific know-how. Estimates are possible thanks to new organizational structures, new indicators and new methods of measuring non-tangible values such as intellectual capital.

The application of the Learning Organization concept in combination with the new organizational models, as a result of the application of intellectual capital in the companies, has shown a considerable increase of value added and of competitive advantage that secures a superior position on the market.

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