

# Attaining The Knowledge Organizational Paradigm: Theoretical Views Of The 21<sup>st</sup> Century Organization And The Case Of Slovenian Institute For Learning Enterprises

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## Abstract

*As we enter the first decade in the twenty-first century, contemporary management thinking is being profoundly reshaped by two new convictions: managing organizational knowledge effectively is essential to achieving competitive success; and managing knowledge is now a central concern, and must become a basic skill of modern manager. In the paper we would like to present the impact of the increased interconnectivity of people and organization, and to perform the new organizational paradigm that provides a modern knowledge construction of the 21<sup>st</sup> century organization. Therefore, the paper focuses on the process of attaining the knowledge organization, and enlightens different theoretical architectures of the 21st century organization. Modern forms of organizational structures range from horizontal, process and team structures to virtual networks. We illustrate the impact of organizational paradigm in the Slovenian economy with a case study, where we examine the Slovenian Institute for Learning Enterprises (SILE). SILE was registered as a non-profit institute and established by 18 flourishing major Slovenian enterprises in January 2001 with the aim of developing the concept of learning organization (LO) and diffusing the concept of knowledge management (KM) to become regular practice in Slovenian enterprises.*

## 1. Introduction

In the internet driven knowledge economy, more and more of the knowledge a firm needs to create economic value will be possessed by knowledge workers. An important challenge in managing knowledge to perform learning organizational is to create economic and organizational incentives for knowledge workers to keep their tacit knowledge within the firm. In the Knowledge Based Economy, the production and distribution of information and knowledge is the main source of a company's assets. Full understanding, organizational learning and knowledge management need to be developed, in order for an organization to learn more rapidly than its competitors. A major challenge in knowledge management is the transformation of personal and tacit knowledge into organizational knowledge. Increasing rate of environmental change and technological complexity demands organizational forms in which knowledge-based information is widely distributed. Organizational learning, therefore, depends upon the evolution of structures, processes, and shared mental models. The objective of paper is to exhibit the extent of knowledge management through the influence of the Knowledge Based Economy on the new organizational paradigm. Consequently different views about the future organization are being formed in the organizational environment of the 21<sup>st</sup> century. We illustrate the impact of organizational paradigm in the Slovenian economy with a case study, where we examine the SILE.

This paper is based on the general cognition process research method. The basic method is further expanded with the descriptive method, compilation method, comparative method and case study method. The basic research contribution of this paper is its comprehensive theoretical overview of the most modern theoretical findings in the field of organizational theory and management science. Consequently, the presented results of case study of SILE are crucial for understanding management and organization paradigm on the doorstep of the 21<sup>st</sup> Century. Ensuring business success in today's dynamic environment is increasingly difficult. Therefore it is senior management's role to formulate appropriate corporate strategy that will reflect the requirements of the modern business environment.

### *1.1 Challenges of the Modern Organizational Environment*

The fast interactions across countries, international learning processes become faster, and new competitors enter traditional businesses (Kubr, 2002, pg. 415). The newest technologies – computers, the Internet, allow consumers to get closer to knowledge production. The challenges that organizations at the beginning of the 21<sup>st</sup> century are facing are completely different from the challenges in the 70s' and 80s' of the 20<sup>th</sup> century. Therefore the organizational concepts and theory of organization are still developing (Palmer, Hardy, 2000, pg. 211). Tackling fast changes and a learning process is the most challenging problem modern managers are facing. Many managers are still holding on to the hierarchical, bureaucratic approach for managing organizations, which was dominating during the past decades (DuBrin, 2000, pg. 190-192). The challenges of today's environment – global competition, ethical issues, rapid advance in information and telecommunication technologies, increasing application of electronic operations, knowledge and information, as the most important organizational capital, increasing employee demands for creative work and opportunities for personal and professional development – require completely different response from organizations, as they were used to up until now (Coulter, 1998, pg. 348). Patterns, which were used in the past, do not satisfy the guidance needs of the 21<sup>st</sup> century organization.

### *1.2 The Knowledge Based Economy*

The knowledge economy is gaining ground and establishing a new framework for modern organizational and management theory. The future of the management process raises the issues of how to manage information and knowledge and how to develop intellectual capital. While managers of the industrial age focused their attention on the control of business operations and on hierarchical structures, the new era managers, i.e. e-managers, will structure and build associations of self-managed virtual teams (Savage, 1996, Earl, Fenny, 2000). Organizations try to achieve their goals by building, leveraging, and maintaining competences (Sanchez, 2003, pg. 7). Competence building is the process of creating or acquiring new kinds of assets and capabilities use in taking actions. Competence leveraging is the coordinated use of an organization's current assets and capabilities in taking actions. Competence maintaining is the maintaining of an organization's current assets and capabilities in a state of effectiveness for use in the actions which the organization is currently undertaking. The competitive position of economies, in particular of the highly industrialized countries, is already or will be determined by their capacity to create value through knowledge. In an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge (Nonaka, Takeuchi, 1995, pg. 22). This structural change is reflected in theories of endogenous growth, which stress that development of know-how and technological change are the driving forces behind lasting growth. Much of the literature on organizational learning and learning organizations (Argyris and Schon, 1978; Nonaka and Takeuchi, 1995; Senge, 1990 ;) highlights both the transformation of personal knowledge into organizational knowledge and the transformation of tacit knowledge into explicit knowledge (Sanchez, 2003, pg. 46). The importance of knowledge management and organizational learning in competence based competition has been widely discussed in the recent literature (Argyris, 1986; Hamel and Heene, 1994; Hamel and Prahalad, 1994; Merali, 1997; Nonaka and Takeuchi, 1995; Sancez and Heene, 1997; Stonehouse et al., 1999; Miller, 1996).

Figure 1: Towards the Knowledge-Based Firm and the Knowledge Management Definitions

Towards the Knowledge-Based Firm	
Trends in the Transition	Major Consequences for the Firm
1. The principal function of the firm will be knowledge, coordination and integration.	<ul style="list-style-type: none"> <li>• Externalization of non-core function;</li> <li>• Erosion of boundaries between internal function, the firm and the market, industries and nations;</li> <li>• Reduced financial capital intensity.</li> </ul>
2. Transactions involving high levels of tacit knowledge will be internalized.	<ul style="list-style-type: none"> <li>• Increased cross function teamwork;</li> <li>• Increased emphasis on learning;</li> <li>• Greater dependence on key knowledge workers;</li> <li>• Development of knowledge Management.</li> </ul>
3. Transactions of high levels of explicit knowledge will be externalized.	<ul style="list-style-type: none"> <li>• Reduction in average firm size;</li> <li>• Increased inter-firm collaboration;</li> <li>• Disintermediation of some physical channels.</li> </ul>
4. The links between education, work, and learning will be redefined.	<ul style="list-style-type: none"> <li>• Increased opportunities for high -skilled workers;</li> <li>• Decreased opportunities for low- skilled workers;</li> <li>• Universal adoption of learning technologies.</li> </ul>
Defining Knowledge Management	
Evans (2003)	The process through which we translate the lessons learnt, residing in our individual brains, into information that everyone can use.
Sanchez (2003)	The knowledge creation processes of firms require interaction between tacit and explicit forms of knowledge; KM it is a four phase process in which tacit knowledge is converted into explicit, and vice versa.
Van den Bosch, van Wijk (2003)	The knowledge creation process of a firm may be seen as social learning cycle in which knowledge cycles through three dimensions in the information space of firms: abstraction, diffusion, and codification of knowledge.
Argyris (1993)	Knowledge is the capacity for effective action.
Wiig (1998)	Knowledge can be thought of as the body of understandings, generalizations, and abstractions that we carry with us on a permanent or semi-permanent basis; we will consider knowledge to be the collection of mental units of all kinds that provides us with understandings and insights.
Malhotra (1998)	KM caters to the critical issues of organizational adaptation, survival, and competence in the face of increasingly discontinuous environmental change; it embodies organizational processes that seek synergistic combination of data and information processing capacity of information technologies, and the creative capacity of human beings.
Wenig (1998)	KM (for the organization): consist of activities focused on the organization gaining knowledge from its own experience and from the experience of others, and on the judicious application of that knowledge to fulfill the mission of the organization.
Murray (1998)	KM is a strategy that turns an organization's intellectual assets into greater productivity, new value, and increased competitiveness.
Lynch (2000)	Knowledge creation - the process of development and circulation of new knowledge - is offers a dynamic strategic opportunity through three mechanisms: organizational learning, knowledge creation and acquisition, and knowledge transfer.
Kubr (2002)	Knowledge management is understood to be a process of systematic, proactive management and the development of knowledge in the organization. Knowledge is the product of individual and collective learning , which is embodied in products, services, and systems.

Source: Adapted from: Algyris, Schon, 1978; Burton – Jones, 1999, pg. 35-45; Evans, 2003; Sanchez, 2003; van den Bosch, van Wijk, 2003; Firestone, McElroy, 2003; Lynch, 2000; Kubr, 2002.

Knowledge is fundamental to organizational competence, which Sanchez, Heene, Thomas (1996, pg. 8) define as an ability to sustain the coordinated deployment of assets and capabilities in a way that promises to help firm to achieve goals. Knowledge, as the source of competitive advantage of an organization, is increasingly recognized as the principal source in the age of the knowledge-based economy. In the age of the knowledge economy, the process of management is undergoing radical changes in all dimensions of basic management functions. The traditional management process has built-in competitive advantages on the classic factors of production (land, labor, capital). In the knowledge era, the production and distribution of information and knowledge is the main source of a company's assets (Burton – Jones, 1999, pg. 42). Knowledge management is understood to be a process of systematic and proactive management and the development of knowledge in the organization (Hansen, 1999, pg. 107). Unfortunately, there is no universal definition of knowledge management; in the broadest context knowledge management is the process through which organizations generate value from their intellectual and knowledge based assets (Santosus, Surmacz, 2003). Most often, generating values from such assets involves sharing them among employees, departments, and even with competitors in an effort to devise best practices and competitive advantages. In order to understand how knowledge-based value creation works, management has to understand what knowledge is and how it is related to the competitiveness of a firm. In organizations, new knowledge is created continuously as employees learn and gain experiences. On the other hand, employees are continuously seeking information and knowledge in order to solve specific problems.

As the economy shifts to dependence on knowledge, firm ownership will transfer to those individuals who own its knowledge resources. Just as industrial revolution gave birth to the industrial model of the firm, so the knowledge revolution is replacing it with the new knowledge based model (*see Figure 1*). A major challenge in knowledge management is the transformation of personal and tacit knowledge into organizational knowledge.

## **2. Attaining the Knowledge Organizational Paradigm**

With the intention that modern organizations would more easily face environmental dynamics they must move toward a new organizational paradigm, which is not based on mechanical assumptions of the industrial age but on the concept of a living biological system (Cogner, 1997, pg. 17). Many organizations are transforming into flexible, decentralized structures, which emphasize horizontal cooperation (Ulrich, 1997, pg. 189). Besides that the boundaries between organizations are disappearing more and more, as even the competitors are forming partnerships with intentions to become globally competitive. A large part of world economy is on-line. Organizations are networked in a constantly changing kaleidoscope of relationships (Shafritz, Ott, 2001, pg. 528). New organizational forms enable organizations to respond to varied environmental pressures, including greater complexity, global presence, severe economic pressures, and incorporation of social values for more participative, learning oriented practices (Fulk, DeSanctis, 1999). Primary value of the organizational capital of the modern organizations is not embedded in buildings, but in information and knowledge (Burton – Jones, 1999, pg. 42). Learning organizations build their sustainable competitive advantages on knowledge and intellectual capital, which also represents the only economic source of the modern organization. In the new environment numerous companies are following the learning organization's concept, while new networking virtual organizational structures prevail among these (Dimovski, Penger, 2002, pg. 155).

Today's managers will have to introduce completely new concepts in order to successfully manage a modern learning company. With the intention that modern organizations would more easily face environmental dynamics, they must move toward a new paradigm, which is not based on mechanical assumptions of the industrial age but on the concept of a living biological system. Many organizations are transforming into flexible, decentralized structures, which emphasize horizontal cooperation. Besides that the boundaries between organizations are disappearing more and more, as even the competitors are forming partnerships with intentions to become globally competitive (Hasselbein, Goldsmith, Beckhard, 1997, pg. 112). New organizational forms have been labeled adhocracy (Mintzberg, 1983), technocracy (Burris, 1993), the internal market (Malone, 1980), knowledge linked organization (Badaracco, 1991), post-bureaucratic (Heckscher, 1994), virtual organization (Davidow, Malone, 1992), and network (Powell, 1990) (adapted from Fulk, DeSanctis, 1999, pg. 501).

### *2.1. The Horizontal Organizational Structure*

The move from the vertical to horizontal organizational structure is a fundamental turnaround of the new organizational dimensions (Dimovski, Penger, 2003, pg. 28). Traditionally the most common organizational structure is the one in which activities are grouped on all levels of the organization. Cooperation between functional departments is in general poor and the whole organization is coordinated and controlled through vertical hierarchy in which decision making jurisdiction belongs to senior management. In a fast changing environment, hierarchical structure becomes overloaded (Ohame, 1995, pg. 269). Structure is based on horizontal workflows or processes, and less on departmental functions. Self-guided teams represent a basic working unit. There are almost no boundaries between functions, since teams are composed of people from different functional areas (Coulter, 1998, pg. 348).

Key Dimensions of the New Organizational Relations Paradigm are (Dimovski, Penger, 2003, pg. 31): (1) horizontal organizational design, (2) wide control span, empowered roles of employees, (3) flattened organizational hierarchy, (4) flexible relations, (5) boundless - virtual organizational relations, (6) organizational pyramid has less and less levels, (7) decentralized decision making, and transfer of decision making power from high to lower managerial levels, (8) dissemination of information along the entire organizational pyramid, (9) horizontal integration of information – management shares information with employees, (10) strategy of cooperation and virtual connectedness of organization via electronic network, (11) adaptable organizational relations and new dimensions of multicultural relations, (12) outsourcing; (13) networking and connectivity of companies in a virtual system, where organizational boundaries can not be determined; (14) modern borderless economy connects organizations in a virtual system, which is primarily focused on value adding in the eyes of consumers; and (15) newer organizational structures: dynamic network structure, hybrid structure, horizontal matrix structure, virtual network structure and team based structure. In the knowledge economy organizational structures are based on network forms (Burton - Jones, 1999, pg. 137). The key for such structures is that allocation of power is asymmetrically allocated in favor of the central organization, which controls the network. Network organizational structure enables accomplishment of transaction to many, which impacts the formation of communication between all parties in the network. Stonehouse (2000) states that information technology created the birth of the virtual organization, which is the newest approach toward departmentalization that spreads the idea of horizontal coordination and cooperation across the borders of an organization.

### *2.2. Organizational Learning and Learning Organization*

Organizational Learning and Learning Organization can be contrasted in terms of process versus structure (Malhotra, 1996). Definitions and views of organizational learning and learning organization abound (*see Figure 2*). Organizational learning involves systematic problem-solving, experimentation with new approaches, learning from experience and best practice, and transferring knowledge quickly and efficiently through the organization in ways that manifest themselves in measurable output (Garvin, 1993, pg. 78). Garvin (1993) defines a learning organization as one able to create, acquire and transfer knowledge, and to change its behavior to reflect new knowledge. A learning organization represents the highest level of horizontal coordination, where all traces of organizational hierarchy are removed (Dimovski, Penger, 2003, pg. 35-38). Such organization is based on equality, open information, empowered employees, low hierarchical levels and culture, which stimulates adaptability and cooperation and thus development of ideas wherever within an organization, so the latter is able to more rapidly discover opportunities and fight with crises. In a learning organization problem solving has the highest value, while traditional organizations follow efficient operations.

**Figure 2: Views of Organizational Learning and Definitions of Learning Organization**

<b>Views of Organization Learning</b>	
•	Organizational learning as a knowledge acquisition (the development of skills, insights and relationships); knowledge sharing and dissemination: and knowledge utilization (the integration of learning to make it widely available to new situations).
•	Organizational learning as a adaptation of change, and as a process of improving actions through better knowledge and understanding.
•	Organizational learning as the enhanced ability to perform in accordance with a changing environment through the search for strategies to cope with those contingences, and the development of appropriate systems and structures.
<b>Defining Learning Organization</b>	
Argyris (1978)	LO is the process of detection and correction of errors. Organizations learn through individuals acting as agent for them.
Huber (1991)	LO is linked by four constructs: knowledge acquisitions, information distribution, information interpretation, and organizational memory.
Huczynski, Buchanan (2001)	LO facilitates communication and cooperation by including everybody in problem identification and problem solving process, which enables the organization continuous experimentation, improvement and enlargement of its capabilities
Senge (1990)	LO are organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together. The five elements that Senge (1990) identifies are said to be converging to innovate learning organizations. They are: (1) systems thinking, (2) personal mastery, (3) mental models, (4) building shared vision, and (5) team learning.
Weick (1991)	Organizational learning the process within the learning organization by which knowledge is about action – outcome relationship and the effect of the environment on these relationships is developed.
Malhotra (1996)	LO learn from their experiences rather than being bound by their past experiences. Management practices of LO encourage, recognize, and reward: openness, systemic thinking, creativity, a sense of efficacy, and empathy.
Daft, Marcic (2001)	A learning organization requires specific changes in leadership, management and structure, the delegation of more powers to the employees, communications, participative strategy and adaptive culture.
<b>Types of Organizational Learning</b>	
• Single loop learning, Double loop learning, Deuteron learning;	<ul style="list-style-type: none"> <li>• Exploitation, Exploration;</li> <li>• Analytical learning, Synthetic learning, Experimental learning, Interactive learning, Structural learning, Institutional learning;</li> </ul>
• Lower level learning, Higher lever learning;	
• Generative learning, Adaptive learning;	
• Reliable learning, Valid learning;	

Source: Adapted from: Algyris, Schon, 1978; Malhotra, Miller, 1996; 1996; Senge, 1990; Palmer, Hardy, 2000; Garvin, 1993; Nonaka, Takeuchi, 1995; Sanchez, 2003; Kubr, 2002; Evans, 2003;

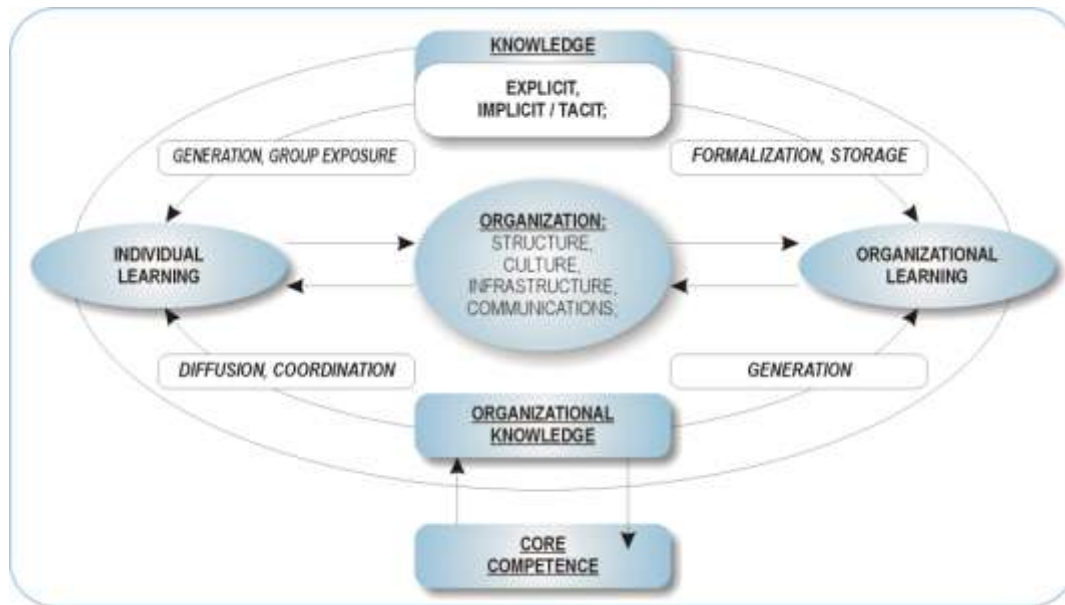
The learning organization model is considered to be the top stage of horizontal coordination, with no traces of organizational hierarchy remaining. Complete understanding, organizational learning and knowledge management need to be developed, in order for an organization to learn more rapidly than its competitors (Dimovski, 1994). Modern forms of organizational structures range from horizontal, process and team structures to virtual networks (Laubacher, Malone, 2000, pg. 215). New flattened organizational structures facilitate communication and cooperation. Thus everybody is involved in identification and problem solving, which enables an organization to continuously experiment, improve and increase its capabilities. Information technology interweaves the organizational structure, which is based on equality, open information, a low level of hierarchy and culture, which facilitates adaptability and cooperation. In a state-of-the-art horizontal organizational structure, the vertical structure shifts top managers away from the technical staff. An extended chain of command inspires the

delegation process and consequently the empowerment of the employees. Cross-functional teams are at the heart of current efforts to horizontally integrate the firm. Miles and Snow (1995) argue that such cross-functional teams should be self-managing, and the organization should heavily invest in skills for self-management of teams. Cross-functional teams provide a more flexible alternative for horizontal coordination and offer the responsiveness needed for rapid action and better understanding of business processes.

**2.3. The Knowledge Management and Organizational Learning Model**

Figure 3 shows the knowledge management and organizational learning loops in intelligent organization (Stonehouse, 2000). Organizations must continuously study the internal and external environment, as well as the relationship between these two, for them to become intelligent organizations. With a goal that an organization would learn faster than its competition, it is crucial to develop an understanding, an organizational learning process and knowledge management. Organizational learning is based on the individual learning of individuals. This has to be structured and held in appropriate forms so it can be effectively transferred and used throughout the entire organization at a later time. Organizational learning and knowledge management are based upon individual knowledge, which must be formalized and stored in appropriate formats for dissemination and diffusion throughout the organization. Knowledge management in an intelligent organization will be founded upon a culture, structure and infrastructure, which encourage the creation and development of knowledge.

**Figure 3: The Intelligent Organization Model for Knowledge Economy**



Source: Stonehouse, 2000, pg. 243.

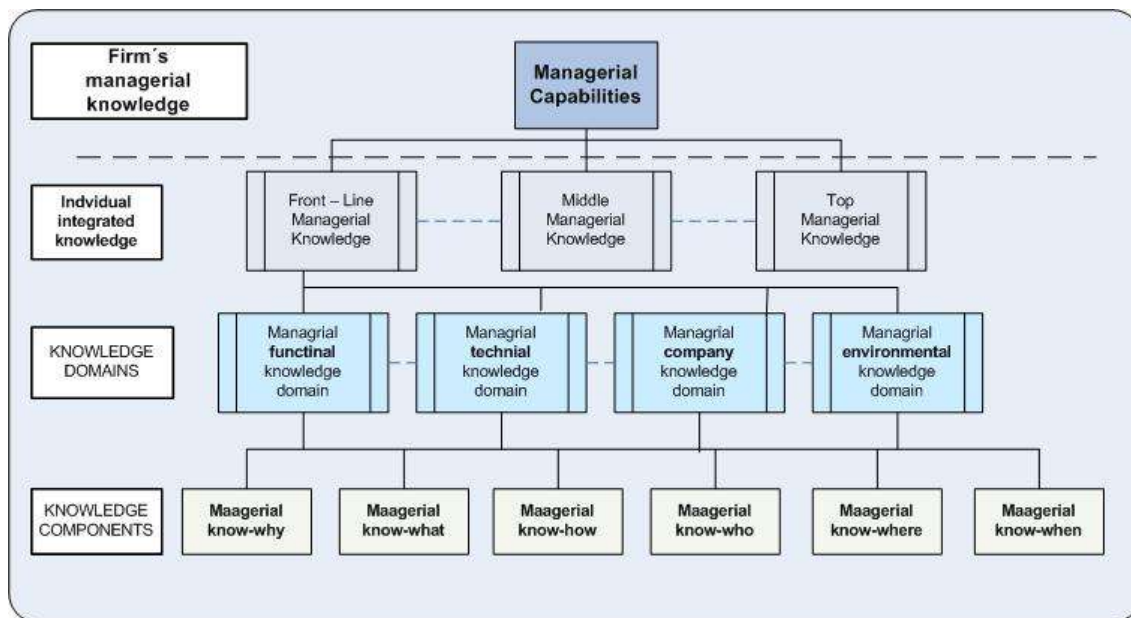
Understanding knowledge creation as a process of making tacit knowledge explicit has direct implications for how a company designs its organization and defines managerial roles and responsibilities within it. Knowledge is the product of individual and collective learning, which is embodied in products, services and systems (Nonaka, Takeuchi, 1995, pg. 72). According to Nonaka and Takeuchi’s model, knowledge creation is a continuous and dynamic interaction between tacit and explicit knowledge which happens at the level of the individual, the group, and the organization, and between organizations. Knowledge is therefore created through the interactions of knowledge in four different models (Nonaka, Takeuchi, 1995, pg. 72): (1) socialization, (2) externalization, (3) combination, and (4) internalization.



As knowledge has to be seen as valuable resource in organizations, attempts have been made to structure the knowledge base and attribute value to these assets. A widely publicized approach has been developed by the Skandia Insurance Company in Sweden, which structures intellectual capital into (Tiwana, 2002, pg. 31): (1) human, (2) organizational, and (3) customer capital. The intellectual index of Roos et al. (1998) is based on (1) relationship, (2) innovation, (3) human, and (4) infrastructure capital (Kubr, 2002, pg. 422). For these reason, a number of organizations have started to use the balanced scorecard model, developed by Kaplan and Norton (2000, pg. 167) to integrate the different assets of a company. The BSC model integrates four perspectives: (1) a financial perspective, (2) a customer perspective, (3) a process perspective, and (4) a learning and growth perspectives. The advantage of model is that it allows different perspectives of the enterprise to be integrated and balances the financial and tangible aspects and the intangible aspects of managing an enterprise. Intellectual capital is an intangible asset source, which often isn't stated on the balance sheet and in its broadest aspect includes human and structural capital (Lynch, 2000, pg. 298). Modern learning organizations build their lasting competitive advantages on knowledge and intellectual capital, which also represents the only economic source of the modern organization (Kubr, 2002, pg. 422).

As the knowledge is fundamental to organizational competence, then is managerial knowledge fundamental to managerial competence (see Figure 4; Sanchez, 2003, pg. 160-174). As suggested in *figure 4*, at the most basic level, several forms of managerial knowledge components are the building blocks of managerial knowledge domains relating to functional, technical, company, and environmental meters. These knowledge domains are the building blocks of the integrated managerial knowledge that each individual manager develops in performing his/her job. To manage knowledge and knowledge creation effectively within the organization managers need to understand not just the stocks of knowledge but also how to manager actual and potential transfers and diffusions. When integrated organizationally, individual managers' capabilities collectively constitute a firm's managerial capabilities.

**Figure 4: Conceptual Framework of Managerial Knowledge Integration and Management Levels**



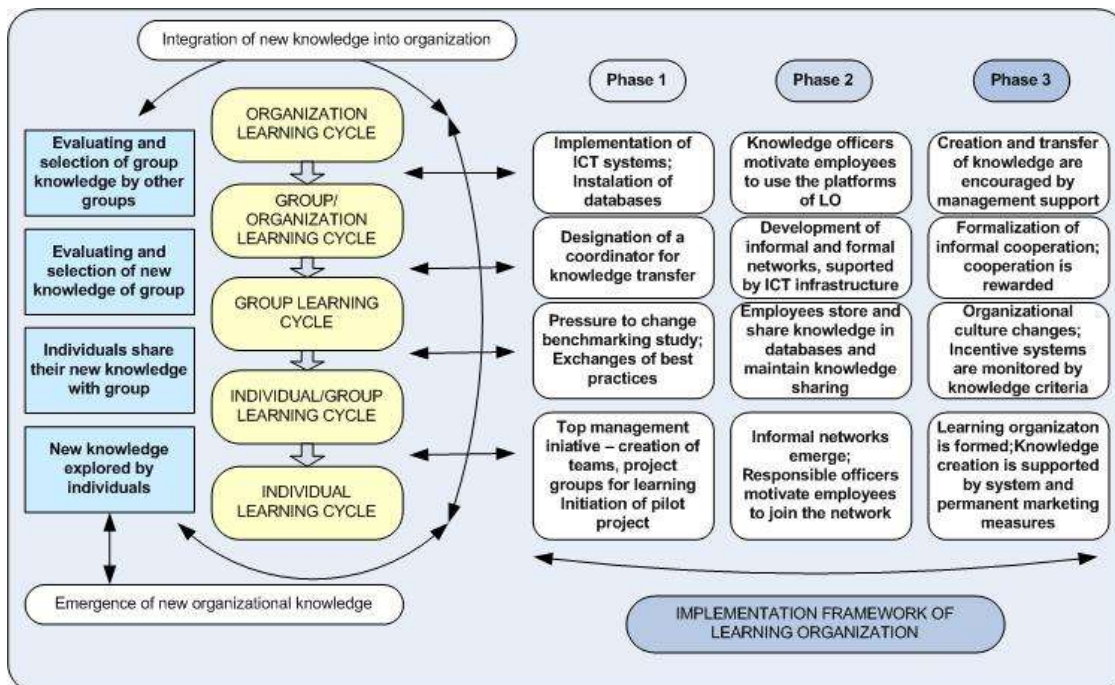
Source: Frans Van Den Bosch, .Raymond Van Wijk, 1998, pg. 170; adopted from Grant (in Sanchez, 2003).

Intelligent organizations concentrate on the creation of the new knowledge that embodies the cornerstone of a lasting competitive advantage. The gaining of a competitive advantage results from the uniqueness of the network connections that the company establishes with its suppliers, distribution channels and end-customers (Etihaj, Guler, Sigh, 2000; see also Porter, 1985). Traditional value chains become fragmented – deconstructed into numerous business segments within which their own specific bases of competitive advantage will be formed.



The learning organization implementation framework integrated with the organizational learning cycles is shown in *figure 5*. Implementation framework of learning organization consists of four implementation paths through three phases: (1) From information management to knowledge management, (2) knowledge workers as change agents, (3) the problem oriented path, and (4) the top-down approach. At the left of *figure 5* the organizational learning cycles are integrated into the conceptual model of implementation of learning organization. The five learning cycles represent the fundamental processes through which an organization receives, evaluates, absorbs or rejects, and deploys new knowledge (Sanchez, 2003. pg. 24). To create the learning organization, managers must support processes in each of the five learning cycles that will stimulate the challenging of current organizational knowledge by the individuals within the organization. All five cycles must function effectively for the overall learning dynamics to be sustained. A breakdown in any of the five cycles will cause a breakdown of learning and knowledge leveraging processes in the organization as a whole.

**Figure 5: Learning Organization Implementation Framework Integrated with Learning Cycles**



Source: Adopted from SILE (Slovenian Institute for Learning Enterprises (Framework); Kubr, 2002, pg. 425-431, Sanchez, 2003, pg. 4-15.

In the knowledge economy knowledge workers who are capable of generating new knowledge and improved interpretative learning frameworks, expect more than just financial incentives from the organizations they work for. Knowledge workers increasingly expect their employing organizations to provide them with superior opportunities to sustain their individual learning processes.

**3. The Slovenian Institute for Learning Enterprises (SILE)**

Slovenian Institute for Learning Enterprises (SILE) was registered as a non-profit institute in January 2001 (<http://www.i-usp.si/eng/>) (see *Figure 6* for detail data on SILE activities). It was established by 18 flourishing major Slovenian enterprises with the aim of developing the concept of learning organization (LO) and diffusing the concept of knowledge management (KM) to become regular practice in Slovenian enterprises. In the course of its development, further 17 successful enterprises joined SILE, which today comprises no less than 35 most prosperous

enterprises Slovenia. Research is the main activity of SILE. Every year they carry out a research on learning organization among 500 Slovenian enterprises, based on *S10* standards and *8C* (criteria) conceptual model of learning organization attaining model of SILE (as suggested in Figure 7- 8C model to build up the learning organization of SILE). Each year award winners of SILE present the operation and development of the learning society to other members of the Institute at their annual meetings. The Slovenian SILE today plays the leading role in the knowledge society, linking and distributing learning practices among Slovenian enterprises. SILE operational policies build on the process of permanent improvement of business efficiency through continuing development of both individuals and teams, and by continuous adjustment to new learnings from the environment.

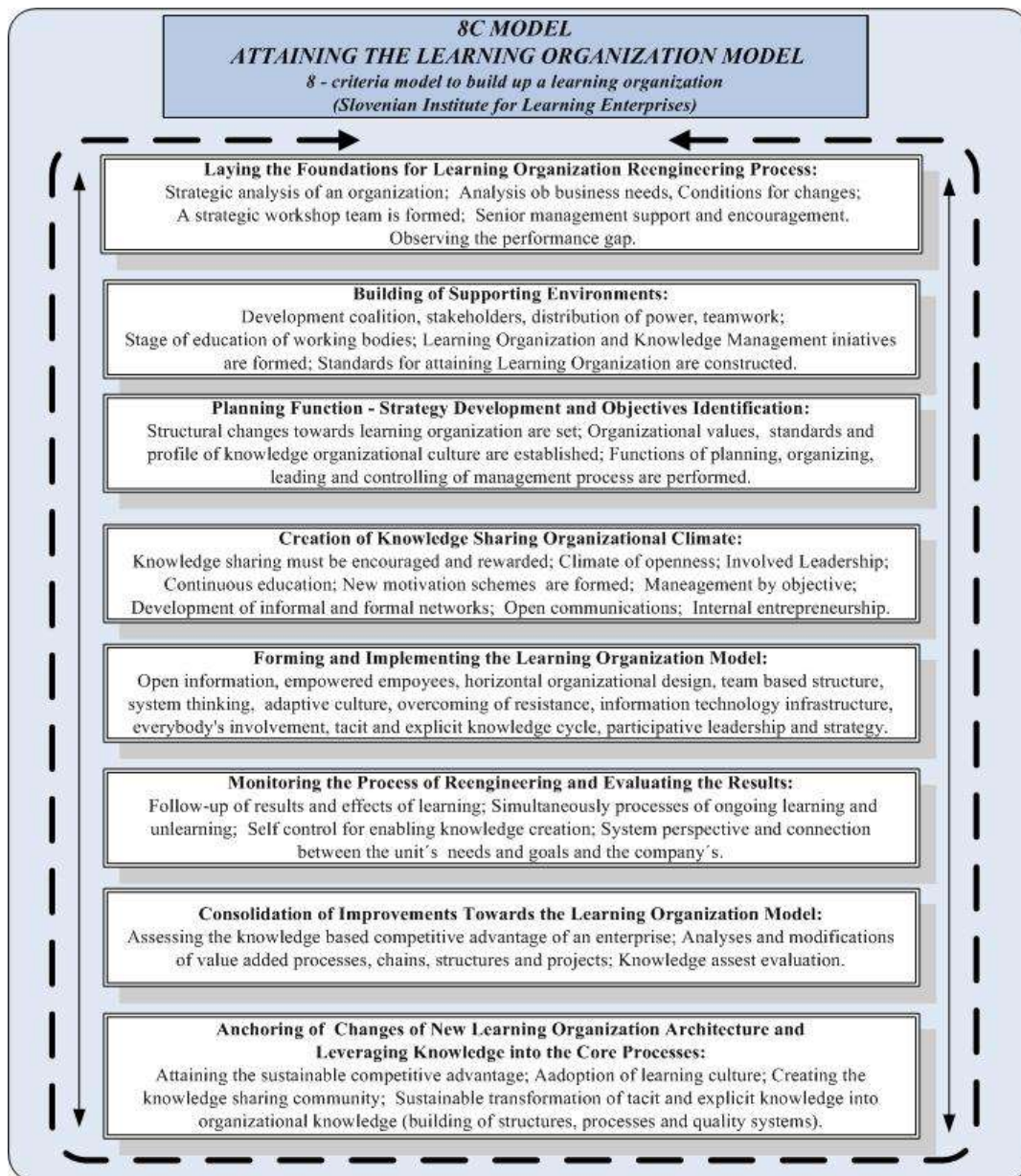
**Figure 6: Conceptual Model of Slovenian Institute for Learning Enterprises**

<b>Slovenian Institute for Learning Enterprises (SILE)</b>	
<b>Mission Statement</b>	Promotion of knowledge development in enterprises in order to maximize their business efficiency.
<b>Definition Of Learning Organization (Sile)</b>	LO is based on planned implementation of change-oriented organizational culture, development of systematic knowledge management, designing of efficient innovation systems, as well as on quality and partnership relations, all of which enables enterprises to achieve their strategic goals efficiently and effectively.
<b>Directives For Learning Organization (Sile)</b>	Learning organizations differ from traditional enterprises by: (1) systematic resolution of problems; (2) systematic searching for acquiring and practical testing of new learnings; (3) learning lessons from previous results and failures; (4) benchmarking; and (5) by fast and efficient transfer of knowledge within the enterprise.
<b>Transformation Into Learning Organization</b>	Transformation is a long-running process that starts at the strategic level with clear definition of the learning organization concept in the vision, goals and strategy of the enterprise. This then reflects in the change of organizational culture, processes and organizational structure.
<b>AWARD WINNERS (Companies)</b>	(1) <b>2000 (3):</b> Henkel Slovenija, Luka Koper., Zavarovalnica Triglav MS. (2) <b>2001 (3):</b> Gorenje, Lek, Revoz. (3) <b>2002 (10):</b> Arcont, Danfoss Trata, Gorenje, Iskra Mehanizmi, Lek, Johnson Controls NTU, NLB, Mercator, Revoz and Trimo.
<b>Activities Of Sile</b>	(1) Research in theory and practice of learning organization in Slovenia and abroad; (2) Cooperation and networking with similar organizations in the country and world wide (ECLLO – European Consortium for the Learning Organization, <a href="http://www.ecllo.org">www.ecllo.org</a> ); (3) Measurement of learning society concept in enterprises – annual research projects.
<b>Bodies Of Sile:</b>	(1) Council of the Institute: consisting of members and founders; (2) Scientific and program council: domestic and foreign experts.
<b>Networking Of Learning Enterprises In Slovenia</b>	(1) Meetings of experts in the field of learning; (2) Development and technology workshops to raise the competitiveness of Slovenian economy; (3) Promotion of SILE members among Slovenian public (annual presentation of awards to the best).

In the year 2003, the research on the path to a learning organization has been running for the third year. The aim of the research was to assess the development level of the learning organization concept in Slovenian enterprises and to select the enterprises that, in 2002, have come closest to the concept of the learning society. The research covered 500 biggest Slovenian enterprises, of which 98, that is 19.6 per cent responded to the research. The trends of research on the presence of the elements of learning organization indicate the growth of awareness among Slovenian enterprises, that in the economy of knowledge their employees are becoming an increasingly important factor of competitive advantage. Slovenian enterprises still have plenty of reserves available in the implementation of the LO

concept. The largest reserves have been found in the development of management for individual roles in the economy of knowledge, as well as in systematic formation of the knowledge management process, and the use of effective tools for measuring the impact of investments in knowledge. The most important finding of the research is the positive correlation between the implementation of the learning organization concept and the business effectiveness of Slovenian enterprises. The 2003 presentation of awards (for the year 2002) concluded with an international event, a symposium of 93 representatives of Slovenian economy visited by the management guru Arie de Geus.

**Figure 7: Conceptual Model of Slovenian Institute for Learning Enterprises**



The conceptual model of Slovenian Institute for Learning Enterprises builds on 11 principles (SILE, 2003): (1) Common vision and employees involvement in learning. (2) Systemic thought about the meaning of an enterprise as an open system connected with its environment and interdependence of subsystems within the enterprise. (3) Continuous and organized acquisition of new learnings and knowledge management. (4) Group learning and team principle. (5) Personal mastery and the role of individuals for their own development. (6) The role of learning manager. (7) Partnership relations (8) Innovativeness and internal entrepreneurship. (9) Culture of changes. (10) Adjusted system of remuneration. (11) Quality of business process reengineering towards the learning organization framework. For the successful implementation of principles of learning organization reengineering the organizational structures, processes, culture and systems must be reorganized (*see Figure 8*). Organizational learning requires individual, group, and organizational processes that work together as a system, and the challenge to managers of learning organizations is to design, support and, continuously improve processes that make learning a systematic activity.

The principal activity of SILE is the holistic research in the application of learning organization concept in Slovenia. The research results in the award of commendation for excellent enterprise on the path to learning organization. Award winners are selected on the basis of a questionnaire according to the Rules for Research Evaluation. In 2003, SILE presented awards to 10 best enterprises selected by SILE evaluation committee and the Chamber of Commerce and Industry of Slovenia. The enterprises that have achieved the highest development level of learning organization are presented the award at the annual international symposium. In 2004, management guru Senge will visit Slovenia on that occasion (May 18, 2004).

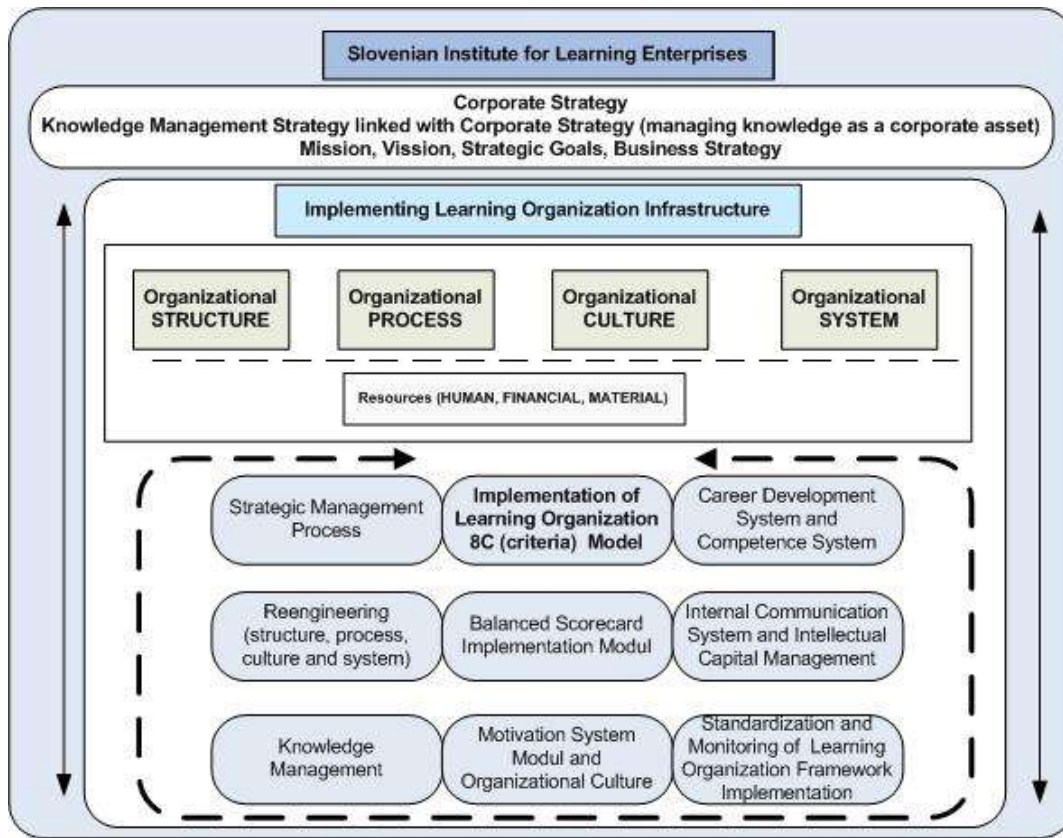
Development standards for learning organizations (**S10**) are based on an evaluation model building on 10 elements. These standards are intended for the achievement of higher efficiency in the implementation of the LO concept and provide a management tool. The model of standards is well proven, and training programs for internal and external appraisers of the LO concept are being prepared. The following are standard requirements: strategic aspect, management role, organizational culture, knowledge management, learning organization, the role of individuals, motivation system, business process reengineering, measurement of results, and effects of learning organization implementation process.

In 2003, SILE set up an integrated model of knowledge management; it is aimed at the increasing of efficiency of investments in knowledge in Slovenian enterprises. The KM model is now being tested by a SILE member. Key projects and operation activities of SILE are: (1) Knowledge management project implementation: evaluation of knowledge vision in enterprises, assessment of knowledge and competences of enterprises, transfer of knowledge between employees; (2) Implementation of Slovenian standards of learning organization S10 (10 standards of learning); (3) Project 8C - long-term implementation of the concept of learning organization (*see Figure 8*); (4) Implementation of the MBO (Managing by objectives) managerial tool in the business process of an enterprises; and (5) Measurement of organizational culture.

In the year 2004, SILE will continue to develop learning policy among Slovenian enterprises, and to build the society of knowledge in line with EU Directives. Based on the adopted Strategy for the Economic Development of Slovenia until 2006, and particularly its guidelines regarding the building up of a knowledge-based society, SILE will pursue its mission and act as institutional promoter for the implementation of elements of learning society. As a member of the European Learning Society Association, SILE will build on innovation development, entrepreneurship and integration of knowledge of various actors, and contribute to intensive development of Slovenian economy. On May 1, 2004, Slovenia will become a full member of the EU and, consequently, the role of SILE will become even more important in the implementation of learning organization culture in Slovenian enterprises. Due to the fact that Slovenia is a typically small and open economy, the concept of learning society has become well established among Slovenian enterprises, thus creating a society of knowledge that, on May 1, will become a part of the larger European society of knowledge.



**Figure 8: Conceptual Model of Project of Slovenian Institute for Learning Enterprises**



**4. Conclusion**

The objective of this paper is to exhibit the process of attaining the knowledge organizational paradigm in the knowledge based economy. Consequently different views about the modern organization are being formed in the organizational environment of the 21<sup>st</sup> century. In the knowledge-based economy, the production and distribution of information and knowledge is the main source of a company's assets. The future of the management process raises the issues of how to manage information and knowledge, and how to develop intellectual capital. The knowledge generation of management is based on horizontal connectedness between organization members and, consequently, the role of management is changing and moving from control and limited resources management towards exerting influence on networks of self-interested individuals or units from within and outside the organization. A learning organization is considered to be the top stage of horizontal coordination, without any traces remaining of an organizational hierarchy. A learning organization requires specific changes in leadership, management and structure, the delegation of more powers to the employees, communications, the participative strategy and adaptive culture. The Slovenian Institute for Learning Enterprises (SILE) today plays the leading role in the knowledge society, linking and distributing learning practices among Slovenian enterprises. In the year 2003, the research on the path to a learning organization has been running for the third year. The aim of the research was to assess the development level of the learning organization concept in Slovenian enterprises and to select the enterprises that, in 2002, have come closest to the concept of the learning society. The research covered 500 biggest Slovenian enterprises, of which 98, that is 19.6 per cent responded to the research. In the year 2004, SILE will continue to develop learning policy among Slovenian enterprises, and to build the society of knowledge in line with EU Directives. On May 1,

2004, Slovenia will become a full member of the EU and, consequently, the role of SILE will become even more important in the implementation of learning organization culture in Slovenian enterprises.

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Notes