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Managing knowledge in the process of organisational competence development

Abstract. The paper is aimed to explain the dynamics of organisational competence through the Knowledge Based View (RBV) perspective. The author referred to the concepts of the double-loop learning and four levels of the professional intellect of an organisation (know-what, know-how, know-why, care-why) as a research theoretical foundation for investigating main constraints on organisational competence development.

Keywords: knowledge, knowledge management, organisational competence, development.

Introduction

In recent years there has been noticed a shift from traditional economic and managerial approaches focused on effective functioning to appreciating the value of development as the only opportunity to ensure the competitiveness of an organisation. In the theory and practice of management, there has been a change in focus from the rationalization of the use of all kinds of resources considered as not scarce and (or) renewable to realize the value of these resources and improve their management efficiency. The issues brought to the forefront are related to organisational competence including dynamic capabilities, or the abilities to change, renew, innovate and based on knowledge and collective knowledge.

Research on organisational competence has connected the area with the Knowledge Based View (RBV) perspective. Knowledge management is considered as a decisive competitive advantage, because differences in the companies' performance are determined as a consequence of the knowledge asymmetry. Knowledge has become the basic of development, the platform for organisational renewal.

But despite the rapid growth of RBV, one of the main problems with implementing knowledge management practices is a low rate of return on knowledge. While companies have started to invest significantly in knowledge management development, the gap between expected and actual return on knowledge is identified (Cohen, 2006, p. 16). Moreover, sharp increases in RBV have hardly affected the level of success or reduced the failure rate of organisational change and development programs.

This paper refers to the concept of the double-loop learning and four levels of the professional intellect of an organisation as a research theoretical foundation for investigating the dynamics and main constraints on organisational competence development through knowledge management perspective.

Knowledge-based view perspective in developing organisational competence: literature review

Competence may be defined as the ability to apply knowledge, skills and relevant experience to achieve intended results. Despite the fact that the definition is addressed to individuals, the concept of competence is also widely applied to companies implying that competence is much bigger than the collective competence of its employees. The concept of 'core competences' (Prahalad & Hamel, 1990) has been commonly accepted by scientists and practitioners. Core competence is defined as differentiated skills, complementary assets and routines providing the basis for a firm's competitive capacities and sustainable advantage (Prahalad & Hamel, 1990; Barney, 1991; Grant, 1991). Thus the development of an organisation can be seen as an organisation's ability to integrate, build, and reconfigure its competencies to cope with rapidly changing environments.

Organisational competence can be determined as the ability of a company to integrate people, resources, processes, structures, and cultures

within a supporting governance and management system. The competence needs to be aligned with the mission, vision and strategy of the organisation for achieving expected results and ensuring organisational development.

A number of recent studies have revealed the widespread use of knowledge management practices within organisational competence development processes. The research themes have moved from disciplinary to interdisciplinary level positioning knowledge management in the wider context of organisational strategy and organisational capabilities.

The main issues to be solved in knowledge management are concerned its nature (object – subjective – intersubjective), carrier (individual – collective), expression (explicit – implicit), types ('know-what' – 'know-how'), realisation (knowledge as an asset – knowledge as activity). Also issues of 'knowledge stickiness' (Szulanski, 1996; Mishina, Pollock & Porac, 2004) and 'knowledge forgetting' (Holan de, Phillips & Lawrence, 2004) in an organisation are investigated.

The central theme of knowledge management is organisational learning which is defined as:

- the processes of preserving or improving the performance of an organisation based on experience (Nevis, DiBella & Gould, 1995);
- the ability to code lessons learned and conclusions from history or experience in routines regulating future activity and behavior (Levitt & March, 1988);
- systematic problem solving, continuous experimentation with new approaches, teaching on one's own experience, the experience of others and lessons from the past, and the rapid and effective dissemination of knowledge within the company (Garvin, 2000).

Companies that benefit from the transformation of knowledge into value have been called 'knowledge creating companies' (Nonaka & Takeuchi, 1995), learning organisations (Senge, 1990; Argiris, 1993; Garvin, 2000), intellectual organisations (Geus de, 1997). From this point of view, an organisation is understood as a self-organising system supporting the ability to development by creation, transfer and inactivation of knowledge.

Research on organisational competence are also undertaken within specific fields. For instance, organisational competence in managing projects has been considered form the KBV perspective. A number of studies

on project-based organisations have examined learning and knowledge developing processes inside and between projects (Bartsch, Ebers & Maurer, 2013; Müller, 2015). In a multi-year study, Söderlund revealed that daily knowledge transfer inside and between projects as well as shifts and changes should be taken into account considering competence dynamics in project-based organisations (Söderlund, 2008). The study also illustrated the importance of three learning processes – shifting, adjusting and leveraging – and their complex interplay in building competence.

Knowledge management is also toughly connected with the concept of intellectual capital that is considered as a hidden basis for creating value in a company. The main areas of research in the field of intellectual capital relate to its composition (e.g. personnel competencies, internal and external structure (Sveiby, 1997), human, structural and client capitals (Stewart, 1997), human capital and intellectual assets (Sullivan, 1999)); its forms (static asset or dynamic capability), measurement and evaluation systems.

There should be also noticed a number of studies combining research in the field of human research management (HRM), organisational development, strategic management and knowledge management. Thus, Wright et al. proposed a model for the integration of strategic HRM, the concept of dynamic capabilities and intellectual capital (Wright, Dunford & Snell, 2001). A number of authors empirically confirmed the relationship among elements of intellectual capital (human, social, organisational) and the capability to develop and change (Gant, Ichniowski & Shaw, 2002; Subramaniam & Youndt, 2005; Kang, Morris & Snell, 2007).

Thus, organisational competence is to be developed on the base of organisational learning and continuous improvement of its competitiveness, effectiveness, and efficiency.

Knowledge management framework for developing organisational competence

The author draw on different streams of literature considered above to construct a framework for the analysis of organisational competence development based on knowledge management perspective. Several statements should be taken into account.

First, the author departs from the statement that development of organisational competence in the modern dynamic environment requires the capability to integrate, reconfigure and create new capabilities, competencies both individual and organisational. This means ensuring well-timed and effective updating of all organisational processes including changing the competencies of employees, systems and management structures based on application, development, integration and creation of knowledge.

Second, knowledge should be considered not as assets or recourses ('knowledge-object') available in a company and created, utilized or integrated in a way like components in a manufacturing process, but as streams of activity ('knowledge-process') that represent the indissoluble unity of knowledge and social interactions during which knowledge is inactivated. Recognition the importance of the human resources' role in creation, transfer and integration of knowledge in a company has caused the shift from widely presented in the literature traditional studies on technological processes in knowledge management to researching social and cultural sources of knowledge as well as mechanisms for knowledge creation and transfer (Tsoukas, 1996; Brown & Duguid, 1998; Cook & Brown, 1999; Orlikowski, 2002; etc). These theories and concepts have articulated the social and activity nature of knowledge, the inseparability of implicit and explicit knowledge as implicit knowledge is a mandatory component of any knowledge and implicit and explicit knowledge are mutually constituted (Tsoucas, 1996, p. 14). Thus, knowledge in the organisational system is not associated with any particular carrier or repository but is distributed ('spread') in the organisation. So, the capability to create, update, integrate, utilize and compile knowledge constitutes the organisational competence.

Third, knowledge circulating in a company should be considered from three mutually constituting positions:

1) knowledge characterizing employees, their capabilities, skills, motivations that contribute to the creation and development of the activities in which this knowledge is inactivated (human capital);
2) knowledge distributed in the social network and shared by employees as the subject of social exchanges (social capital);

3) knowledge institutionalised in business processes, practices, systems and structures (system capital).

Thus, knowledge circulating in a company is represented in the structure of intellectual capital and functionally organised by this structure.

Finally, in order to explain the dynamics of double-loops learning (Argiris, 1976), the author refers to the four levels of the professional intellect of an organisation: 'know-what', 'know-how', 'know-why', 'care-why' (Quinn, Anderson & Finkelstein, 1996).

Keeping these statements in mind, the author developed the knowledge management framework for developing organisational competence.

1. Considering the results of knowledge inactivation in a company, three levels of knowledge circulation can be distinguished: business model, strategy and processes. Inactivation of knowledge at each level is a cycle of development and re-creation of normative representations (about business model, strategy or processes) and inactivation these representations in day-to-day activities. The result of the cycle is the generation of institutionalised forms of normative representations that launches a new cycle of knowledge inactivating.

Thus, there are at least three types of the business model, strategy and processes in the organisation: developed (intended, planned), inactivated (result of interpretation, adaptation or initiation) and institutionalised (shared, socially approved and legally supported). Obviously, the institutionalised business model (strategy or processes) launches a new cycle of generation of a new or updated business model (strategy or processes) and its inactivation due to changes in dynamic environment.

So, organisational competence development as knowledge flows in a company can be presented as a 'cube' (see Fig. 1) that connects examined concepts.

2. The four types of knowledge in a company ('know-what', 'know-how', 'know-why', 'care-why') mentioned above are represented at different levels of learning activities.

'Know-what' is knowledge of what needs to be done to effectively implement the processes including knowledge of procedures, techniques and algorithms. This level is a basic level of knowledge and can require formal confirmation and (or) certification.

'Know-how' is knowledge of how 'know-what' should work. This is knowledge of the regulation mechanism that needed during the processes

implementation, in particular, management practices. Together, these two types of knowledge constitute the first order double-loop learning: 'Strategy – Processes' (see Fig. 2, bottom part) that is in charge of self-organisation in a system.

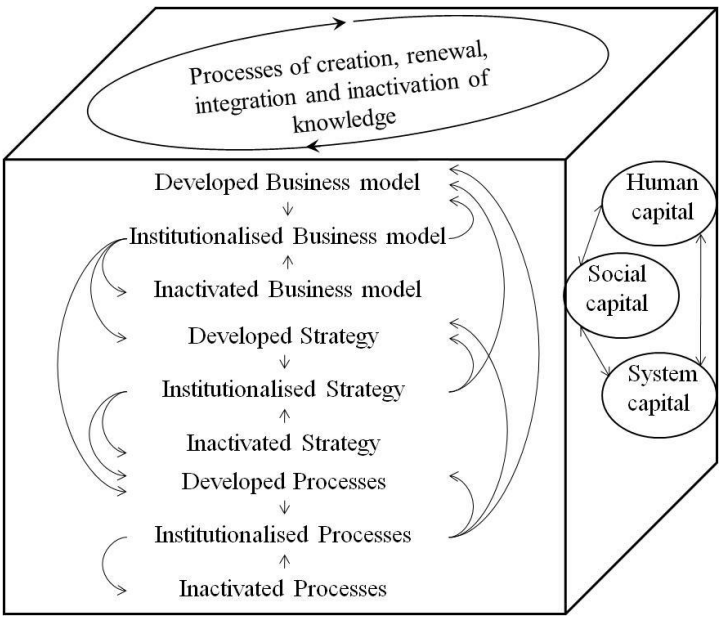

Fig. 1. Organisational competence development as knowledge flows
(Source: developed by the author)

Problems arising in the processes implementation launch the first cycle of knowledge creation: in the process of regulating processes, 'know-how' is inactivated and participate in the creation of 'know-what'. More complex problems require creation of 'know-how' (for example, revision of applied control technologies) and launch a more complex cycle in which the creation of 'know-how' and 'know-what' is carried out simultaneously. Further problematisation – strategies – involves referring to deeper reflexive layers and focuses on 'know-why' and 'care-why'. This process requires the launch of the second order double-loop learning for developing and redeveloping strategies. At this level self-regulation in a system is presented.

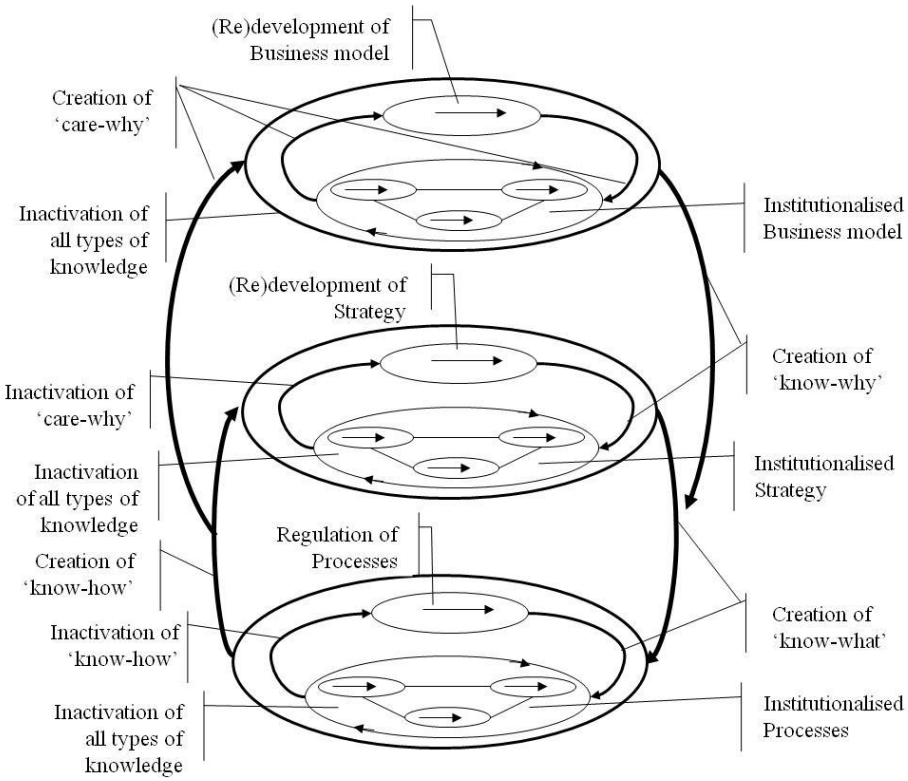

Fig. 2. First, second and third order double-loop learning in a company
(Source: developed by the author)

'Know-why' allows to develop strategies, tactics and policies and to correct them. It is a deep understanding of regulation and management impact mechanisms. 'Care-why' provides an understanding of the organising principles underlying the processes and represents a combination of capabilities, motivation and intentionality. 'Care-why' is created and inactivated in the process of business model creating and adjusting. This pair of knowledge types adds another double-loop learning 'Business model – Strategy' (the third order double-loop learning representing self-reference in a system) (Fig. 2, upper part).

These three overlapping control loops (self-organisation, self-regulation and self-reference) constitute the ongoing process of organisa-

tional learning that results in organisational competence development as a dynamic capability.

3. In order to enhance the development of organisational competence, the specific environment allowing implementing all three control loops should be created in a company.

In reality, a company may face a situation when one or more control loops do not work properly. This means that reproduction of knowledge of one type or another can be limited or even interrupted that, in turn, causes the constraints in developing organisational competence. According to this framework, four types of such interruptions can be presented (Fig. 3):

1) Type A (A1, A2) – interruption in the reproduction cycle of 'know-what';
2) Type B (B1, B2) – interruption in the reproduction cycle of 'know-why';
3) Type C (C1, C2) – interruption in the reproduction cycle of 'care-why';
4) Type D (D1, D2) – interruption in the reproduction cycle of 'know-how'.

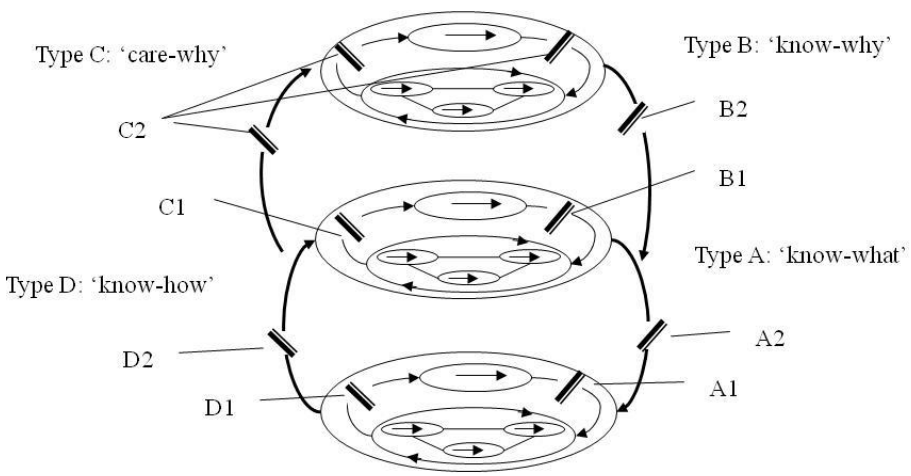

Fig. 3. Typology of interruptions in knowledge reproduction cycles
(Source: developed by the author)

Types A and B and their combination with the other types mean that despite the process of all types knowledge updating taking place in day-to-day activities, inactivation of updated knowledge is constrained. As a result, processes in a company remain invariant even though the necessity to change is fully recognised. In this case, the complexity of reflexive organisation (second and third order double-loop learning) is depreciated due to the lack of proper changes in the processes.

Types C and D are associated with problems in the reflexive organisation and represent the inability to update knowledge due to lack of methodological thinking skills, insufficient organisation of collective thought activity and low professional intellect of a company. This means that the dynamics and depth of changes in knowledge do not correspond to the dynamics and depth of changes in a company and its environment. Despite the ongoing changes in the processes and inactivation of updated knowledge, there is low efficiency of knowledge inactivating. Such a situation can be intentional when top-management realising the need for radical changes implements incremental improvements in order to avoid a huge perturbation in a company.

These types of interruptions can serve as guidelines for further improvement of knowledge management process as a whole.

Conclusions and future research

The dynamic and complex business environment has been emphasizing the need for developing organisational competence as a dynamic capability. The presented in the paper framework that has linked the area of competence development and knowledge management facilitates shedding light on the dynamics of the competence development process and main constraints in it.

Future research should consider how different types of knowledge interact among each other and with organisational systems and structures. The paper has offered a preliminary framework that should be enriched with in-depth case study analysis of key processes constituting organisational competence.

In conclusion, the research is expected to assist creating the conditions for the development of knowledge management process as organisational competence in the dynamic and complex business environment.

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