Knowledge in the business strategy context

Znalosti v kontextu podnikové strategie

I. Tichá, J. Hron

Czech University of Agriculture, Prague, Czech Republic

Abstract: The paper builds on the resource-based approach to the firm and develops it further towards the knowledge-based approach by exploring the importance of knowledge in a modern firm. Various concepts explaining characteristics of knowledge are compared and contrasted in order to contribute to the current strategic management thinking and to stimulate adoption of the concepts of knowledge management in modern businesses. The paper draws from the literature review made within the project Information and Knowledge Support for Strategic Management financed by the Czech Ministry of Education, Youth and Sports.

Key words: knowledge, business strategy, tacit, explicit, knowledge taxonomy.

Abstrakt: Příspěvek vychází z teorie zdrojového přístupu k podniku a rozvíjí jej dál směrem ke znalostně orientovanému přístupu formou vymezení významu znalostí v moderním podniku. Vzájemným porovnáním různých konceptů charakterizujících znalosti přispívá k současnému poznání v oblasti strategického řízení a ke stimulaci procesu přijetí principů znalostního řízení v moderním podniku. Příspěvek těží z literární rešerše zpracované v rámci řešení výzkumného záměru Informační a znalostní podpora strategického řízení financovaného Ministerstvem školství, mládeže a tělovýchovy ČR.

Klíčová slova: znalosti, podniková strategie, tacitní, explicitní, taxanomie znalostí

Knowledge is regarded as the most important strategic resource, and the ability to create and apply knowledge is a key skill for the establishment of a relatively sustainable competitive advantage (Penrose 1980). It is naturally expected that a firm with better knowledge of their customers, products, technologies, markets and their mutual links, which can apply such knowledge, can achieve better results. This opinion further develops the resource-based approach to the firm (see Figure 1 for the overview of the strategy formulation process from the resource-based perspective) and shifts it towards the so-called knowledge-based approach of a firm, which perceives the firm as a means of creating, integrating, storing, sharing and application of the knowledge.

While in the past knowledge used to be perceived as a matter-of-course, something that was not valued nor managed explicitly, the current environment of competition exerts pressure upon the firms to care for strategic decisions concerning the build-up, maintenance and development of their own knowledge basis. The firms that would like to apply the concept of the knowledge approach to a firm are facing a number of problems in the process of formulating their knowledge strategy. A simple application of the traditional processes of strategy formulation would lead towards seeking balance between the knowledge (knowledge sources) within the firm, and the requirements of knowledge of the goods production which can generate above-average returns. Identification of such knowledge, which is a unique and valuable source, the identification of which processes are unique and valuable, and which combinations of knowledge and processes can support the exceptional position of the firm's products on the relevant markets – such are the main cornerstones of a knowledge-based strategy (Zack 1999). Each firm must have a certain level of knowledge of its own technologies, products, markets, customers and sectors so as to be able to keep its position within the sector. A strategic decision on which attitude should a firm take to these factors has a direct influence upon what the firm and its

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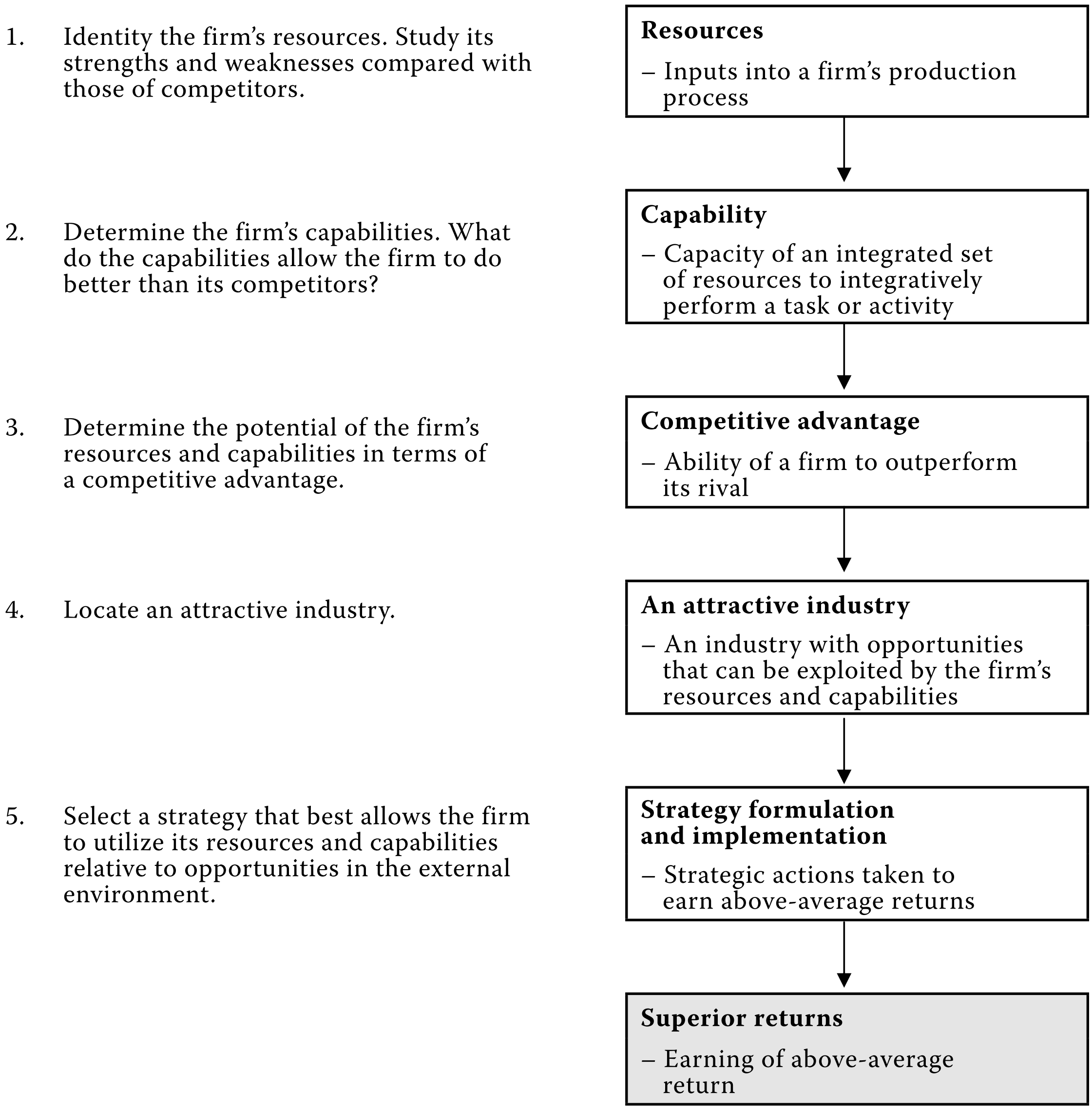

Figure 1. Strategy formulation process from the resource-based perspective

Source: Tichá, Hron (2003)

employees must know so as to remain competitive. The decision on whether a firm should produce or trade, offer products or services, compete with low costs or distinguish itself from the competitors, has a direct impact upon the level and character of the knowledge and skills required for the achievement of success.

OBJECTIVES AND METHODS

This paper expands on the paper published by Tichá (2001) and combines it with Zack's typology of knowledge (Zack 1999), where five knowledge types are identified:

1. declarative knowledge (know-about)
2. procedural (know-how)
3. causal (know-why)
4. conditional (know-when)
5. relational (know-with).

This taxonomy is a basis for a well-known strategic knowledge map. The intention of the authors is, however, to define the characteristics of knowledge important from a business perspective and to support with arguments the necessity of the shift of managers´ mind set in order to accommodate new approach to a business strategy formulation and implementation. In order to do so, a number of contributions to knowledge taxonomy and typology has been reviewed, compared and contrasted. The comparison of various approaches reveals the complexity of the role of knowledge within a modern firm as well as the common underlying concepts facilitating understanding of the importance of knowledge in the process of strategy formulation.

RESULTS AND DISCUSSION

Before considering the importance of knowledge for a business strategy, it is useful to describe some of the characteristics of knowledge as defined by the literature. Citing various authors, Martennson (2000) identifies some of the attributes of knowledge:
– Knowledge cannot be easily stored;
– Information has little value and will not become knowledge unless processed by the human mind;
– Knowledge should be studied in context;
– Knowledge depreciates in value if not used.

Polanyi (1966) makes the distinction between tacit (personal) knowledge and explicit (codified) knowledge. Polanyi understood tacit knowledge to mean the "committed belief", embedded in context and difficult to express, sometimes inexpressible.

Referring to the seminal work by Polanyi (1966), Nonaka (1991) expanded on explicit and tacit knowledge in great detail – according to him explicit know-ledge is documented and is made public, it is structured and can be structured and shared through information technology and other means; while tacit knowledge resides in people's mind, behaviour and perception and evolves from social interactions. In constructing his model, Nonaka (1991) identified four patterns for knowledge conversion in the business, namely:
– From tacit to tacit – through social interactions and shared experiences, e.g. apprenticeship and mentoring;
– From explicit to explicit – through the combination of various explicit knowledge forms, e.g. merging, categorizing and synthesizing;
– From tacit to explicit – through externalization, e.g. articulation of best practices
– From explicit to tacit – creation of new knowledge from the explicit knowledge through internationalization, e.g. learning (Figure 2).

	Tacit	Explicit
Tacit	**S Socialisation**	**E Externalisation**
Explicit	**I Internalisation**	**C Combination**

Figure 2. Model of knowledge creation (SECI Model according to Nonaka)

	Undiffused	Diffused
Codified	**Proprietary knowledge**	**Public knowledge**
Un-codified	**Personal knowledge**	**Common sense**

Figure 3. Knowledge category model

Another model that supports Nonaka and adds meaning to the discussion about different types of knowledge is Boisot's knowledge category model (Boisot 1998) depicted in Figure 3.

Boisot uses the term codified to refer to knowledge that is easy to capture and transmit, while the term un-codified refers to knowledge that cannot readily be transmitted, e.g. experience. The term diffused is used to refer to knowledge which can be easily shared, and undiffused refers to knowledge not easily shared.

Knowledge itself is not new, however, recognition of knowledge as a corporate asset is new (Davenport, Prusak 1998). Neef (1999) asserts that it is only possible to appreciate knowledge management if viewed in relation to the changes occurring in the global economy. Clark (2001) notes that knowledge based economies are heavily reliant on the production, distribution and use of knowledge and information, all at a rapid rate. He distinguishes between different types of knowledge, namely:
– Know-what (referring to the accumulation of facts); this type of knowledge is close to information.
– Know-why (refers to scientific knowledge of the principles and laws of nature).
– Know-how (skills and capability to do something); internal knowledge in organization.
– Know-who (who knows what, who knows who to do what); implies special relationship.

The same author suggests that, while knowledge might be expensive to generate, there is little cost to diffuse such knowledge. In addition, knowledge provides increasing returns as it is used; the more it is used, the more valuable it becomes. Clark also identifies key drivers of this new economy, including globalization, information technology, distributed organizational structures including network-type arrangements, and the growing knowledge intensity of goods and services. Drucker (1992) argues that knowledge as a resource has dethroned land, capital and labour as primary factors of production. According to Drucker, change has become the norm and modern organizations must constantly upset, disorganize and destabilize the community. In order to organize for the continuous change, Drucker urges the management to:

– Engage in practices of continuous improvement
– Learn to exploit knowledge available within the organization
– Learn to innovate
– Decentralize decision making.

Because knowledge workers effectively own the most important means of production (knowledge), the traditional relationship between workers and the organization has been altered dramatically – this questions the capacity of organizations to manage effectively such workers. This shifts the traditional hierarchical relationship towards a team-oriented focus.

Wiig (1997), though admitting that there is no general approach to managing knowledge, identifies three divergent approaches:

– Management of explicit knowledge with the support of technical means
– Intellectual capital management
– Broader, more holistic approach covering all relevant knowledge related aspects that affect business success.

The analysis of various knowledge management approaches reveals a common basic structure and identifiable modules, stages or phases depicted in the Figure 4.

The common framework for knowledge management process strengthens the arguments that, due to the global competition, products are not the basis for competing successfully in global markets and organizations differentiate themselves on the basis of what they know. The convergence of products and services highlights the importance attributed to knowledge and knowledge workers. Product quality and pricing strategies do not guarantee competitive advantage any more. Knowledge can, however, provide a sustainable competitive advantage.

Ghoshal and Bartlett (2000) advocate an organization that demonstrates flexibility to understand and exploit the distinctive knowledge and unique skills of employees. They identify three following core capabilities:

– The ability to inspire individual creativity and initiative
– The ability to link and capitalize on entrepreneurial activity and individual expertise through the process of organizational learning
– The ability to continuously renew itself.

According to Liebowitz and Beckman (1998), a knowledge organization is one that realizes the importance of its internal and external knowledge and transforms that knowledge into it most valuable assets. In order to facilitate this transformation, the authors identify three critical areas:

– The maintenance of a "corporate memory"
– The "management of knowledge" within the organization
– The building and nurturing of an appropriate corporate culture.

CONCLUSIONS

The paper raises the questions "Why is it in fact that it is the knowledge that provides the source of sustainable competitive advantage of a firm?" and by providing an insight into the concept of knowledge in the context of business, it tries to provide an answer. Knowledge, particularly specific knowledge with regard to the concrete context of the business,

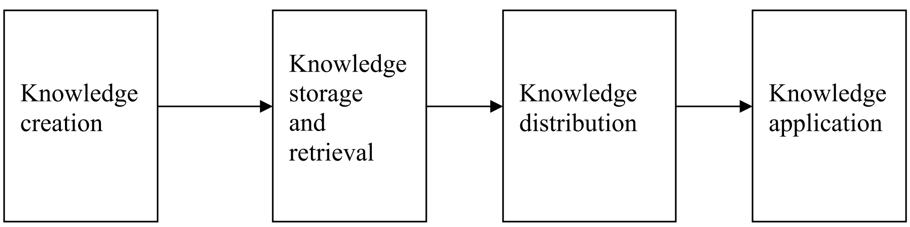

Figure 4. Knowledge management process

the tacit knowledge incorporated in the complex organisation processes and procedures, developing in the process of gaining experience, is usually unique and hard to imitate. Unlike other traditional sources, knowledge cannot be purchased on the market ready to be used. If competitors want to achieve a similar knowledge, they must go through a similar experience: that takes a lot of time and the only way how to accelerate such a process is to invest more money in it. The other reason of knowledge as a source of sustainable competitive advantage is the fact that the more knowledge the subject has the more it is able to learn. The opportunity for learning is greater in a firm with higher knowledge basis than in a firm less well equipped. The sustainable character of a competitive advantage also stems from the fact that a new piece of knowledge complements the existing knowledge in a unique way thus giving an opportunity of achieving a synergic effect (Nonaka 1991).

The competitive advantage is therefore based on better knowledge in comparison with the competitors, combined with time limits which the competitors have available to catch up regardless of how much they invest in achieving it. Unlike the traditional physical goods which are consumed by being used and which thus provide diminishing returns in time, the knowledge provides increasing yields. The more the knowledge is used, the higher its value; its use makes a self-strengthening cycle (Drucker 1992). If a firm can identify areas in which its knowledge exceeds that of its competitors, and if such knowledge can be placed on the market with profit, then the knowledge can become a strong and stable competitive advantage.

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Contact address:

Ivana Tichá, Jan Hron, Czech University of Agriculture Prague, Kamýcká 129, 165 21 Prague 6-Suchdol, Czech Republic

tel.: +420 224 382 260, +420 224 382 242, e-mail: ticha@pef.czu.cz, hron@pef.czu.cz