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Dynamic Capabilities, Innovation and Organizational Learning: Interrelations and Impact on Firm Performance

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Abstract

Scholars state that various difficulties emerge in attempts to empirically measure the concept of dynamic capabilities and its relationship with the other variables. As Arend and Bromiley (2009) asserted, a dynamic capabilities perspective offers an incomplete theory, employing a variety of concepts without clearly defining its domain of relevance. It could be assumed that conceptual model of dynamic capabilities and its interdependence with other significant variables could offer an explanation as to why some companies achieve competitive advantage in a volatile environment while others do not. Thus, the purpose of this paper is to contribute to the field of respective research in explaining, what is the relation between dynamic capabilities, organizational learning and innovations and what impact the latter relations have on firm performance. Through the review of the findings of other researchers, authors provide theoretical model, and set the foundation for further empirical testing.

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Introduction

Over the past decade, the concept of dynamic capabilities has been of increasing researchers' interest. This interest can be explained by growing awareness of dynamic capabilities' impact on competitiveness, business practice and performance results. In the scientific literature, researchers (Eisenhardt & Martin, 2000; Porter, 1990; Teece, Pisano, & Shuen, 1997; Zollo & Winter, 2003) recognize dynamic capabilities as a key factor in an organization's innovativeness and competitiveness. According to Teece, Pisano, & Shuen (1997), dynamic

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capabilities serve as an explanatory tool to analyse the firm's ability to build the competitive advantage in the time of uncertainty and change. Even though researchers recognize that dynamic capabilities of the firm may positively contribute to firm performance, there is no strong empirically grounded evidence in research literature that supports this idea (Hitt et al., 2001; Helfat et al., 2007). Moreover, Drnevich & Kriauciunas (2011) argue that several drawbacks of dynamic capabilities can be identified. These include the failure to incorporate dynamic capabilities into the internal processes within the firm (Tallon, 2008). Furthermore, the complexity of the use of dynamic capabilities and the need for extensive large-scale management may lead to unnecessary changes (Drnevich & Kriauciunas, 2011). Therefore, the role of dynamic capabilities in increasing firm performance is still questionable. As a result, this paper raises research question – what are processes or routines within the firm that integrate dynamic capabilities concepts and this way affect overall firm performance.

Research purpose is to contribute to the field of respective research in explaining, what is the relation between dynamic capabilities, organizational learning and innovations and what impact the latter relations have on firm performance.

The aim of the paper is achieved through the review of the findings of other researchers, and by setting the foundation for further empirical testing.

1. Delineating the relationship between dynamic capabilities and firm performance

Addressing the drawbacks of dynamic capabilities concept that were identified by Drnevich & Kriauciunas (2011), we examine the current research literature in order to find the way of how to incorporate dynamic capabilities into the internal firm's processes and this way establish a clear role of dynamic capabilities in increasing firm performance. First, a brief overview of theoretical aspects on dynamic capabilities is provided. Later, the relations of dynamic capabilities, innovations and organizational learning are examined.

1.1. Dynamic capabilities' current concept

The emergence of the dynamic capabilities view was a reaction to the deficiency of both the resource-based and the action-based view (Mintzberg et al., 2003) in the new conditions of an economy of knowledge and innovation. Though the concept of dynamic capabilities has reached the maximum of researchers' interest, still there is no commonly recognized conception of what constitutes dynamic capabilities. This concept has been analyzed from a variety of perspectives and attitudes. Some researchers focus their attention on the nature of dynamic capabilities, while others emphasize the antecedents and outcomes of the concept. It is agreed that dynamic capabilities concept has largely been developed under the influence of two main papers – Teece et al. (1997) and Eisenhardt & Martin (2000). Teece et al. (1997) considered dynamic capabilities to be a firm's ability to "integrate, build and reconfigure internal and external competencies to address rapidly changing environments". Whereas Eisenhardt & Martin (2000) understood dynamic capabilities as specific strategic processes.

In general dynamic capabilities framework can be structured of strategic and operational processes (Güttel & Konlechner, 2009). Strategic processes mostly relates to sensing and seizing new opportunities in the dynamic environment (Teece, 2007). Therefore these processes determine the formation of company's strategy (Güttel & Konlechner, 2009; Ridder, 2012). Operational processes, mostly relates to reconfiguring internal or external competencies and shaping operational routines in the company (Güttel & Konlechner, 2009; Ridder, 2012).

Many definitions of dynamic capabilities point to the importance of innovation as well as change and organizational learning, which is related to accumulating processes, pioneering processes, coordinating processes, and deploying processes. However, the concept of dynamic capabilities is extensive enough to provide space for different and competing interpretations of the phenomenon.

1.2. Organizational learning as a constituent part of dynamic capabilities concept

The actuality of organizational learning for firm's success is researched since 1960s (van Grinsven & Visser, 2011). However, it might be noticed that today researchers are returning to the issue of organizational learning in

order to investigate the growth of organization aimed at the innovation development and increasing competitiveness (Cope, 2005; Franco & Haase, 2009; Wang & Chugh, 2014; Blackburn & Kovalainen, 2009).

Organizational learning might be defined as the operational process of obtaining information and converting it into knowledge (Franco & Haase, 2009); as a detection and correction of error (van Grinsven & Visser, 2011) where error is a conflict between that what is aimed to be achieved and what is actually achieved (Argyris & Schon, 1996).

In the light of dynamic capabilities concept organizational learning might be treated as the way to incorporate dynamic capabilities into the internal processes of the firm. In the historical perspective, organizational learning is well recognized as an essential element in the models of sustained competitiveness. Researchers (Levinthal & March, 1993; Franco & Haase, 2009) have found that organizational learning has positive outcomes on firm's performance both financial and non-financial. On the other hand, we build the argument that dynamic capabilities impact on firm's performance is mediated by internal processes within organization or more tangible capabilities that might be reconfigured by dynamic capabilities. Eisenhardt & Martin (2000) support above idea and suggest that dynamic capabilities become more salient through the process of learning that generates new knowledge.

Acting mainly within the internal environment of the firm organizational learning is seen as one of the key internal processes within organization. Therefore, it can help mediate the relationship between dynamic capabilities and firm performance. The history - dependent nature of organizational learning (Levitt & March, 1988) adds value to dynamic capabilities that are mainly future – oriented (Breznik & Hisrich, 2014). Moreover, the resource and capability changing characteristic of dynamic capabilities (Breznik & Hisrich, 2014) might be manifested through organizational learning processes that are found to be routine – based and target – oriented (Levitt & March, 1988). This way, dynamic capabilities through the mediation of organizational learning processes become a primary source of competitive advantage (Shane & Venkataraman, 2000).

Even though researchers acknowledge the positive impact of organizational learning and dynamic capabilities on firm performance, it is also argued that this relation is mediated by innovation. It is found within the academic literature that organizational learning is antecedent of innovation (Jimenez-Jimenez & Sanz-Valle, 2011). Breznik & Hisrich (2014) argues that innovation is a result of learning process. Other researchers suggests that organizational learning itself and its output, organizational knowledge, allow enhancement of innovation through acquisition, sharing, development, and transformation of knowledge (Huber, 1991; Sanz-Valle et al., 2011).

Next section discusses the relationship between dynamic capabilities, innovation and firm performance concepts.

1.3. The relationship between dynamic capabilities and innovation

In 1934, Shumpeter was the first researcher to define innovation as new products or processes, as well as new sources of supply, new markets, or even new ways of organizing business. Presently scholars (e.g. Ahmed, 1998; Rogers, 2003; Damanpour & Schneider, 2006; Dobni, 2008; Goffin & Mitchell, 2010; Norman & Verganti, 2012) emphasize innovation as process that can be continually repeated and can manifest in many forms. The purpose of innovation is to use recent conditions and opportunities, which have formed in environment, in order to frame new value and gain competitive advantage (Porter, 1990; Nonaka & Kenney, 1991; Damanpour & Schneider, 2006; Dobni, 2008). Permanent implementation and realization of innovation ensures high competitive advantage of whole enterprise. Therefore in today's global markets innovations are considered to be the basis of inevitable changes (Vanhaverbeke et al., 2007; Bekkers et al., 2011; Baregheh et al., 2012). Thus, in general innovation is a process, perceived as aiming various novelties in different activities: by making products, creating services, producing new brands, installing new management systems, establishing new economic or public value, and etc.

Innovations may be considered as a process of different activities, i.e. responding to dynamic changes and improving existing products, services, competencies, business models, etc. Equally innovations may be considered as an outcome, i.e. responding to high competition and developing new products, services, technologies, creating new business models, markets, etc. (Jimenez-Jimenez & Sanz-Valle, 2011; Li et al., 2008; Porter & Stern, 2001). Jimenez-Jimenez & Sanz-Valle (2011) add that mostly in scientific literature innovations are conceptualized as the adapter of new ideas, results or changed behavior. Scholars also distinguishes number of innovation types in the literature, but since the purpose is to analyze innovation as a mediating concept in respective relations, this paper adopts a broad concept of innovation.

While analyzing different variables inside dynamic capabilities and firm performance relations, lots of misunderstandings arise because of an incomplete theory of dynamic capabilities. Though this concept has been analyzed from a variety of perspectives and attitudes, the relation with other variables, such as innovation, organizational learning, networks, and others, still remains unclear. Moreover, it is important to examine such relations as dynamic capabilities are recognized as having insignificant direct impact on firm performance results (Protogerou et al., 2008). Thus, following the main idea of the paper and previous sections herein authors assume that innovation should be analyzed as mediator in the interrelationship between dynamic capabilities and performance, including organizational learning as a requisite variable as well.

2. Building the theoretical model

Following the theoretical background in this research authors are trying to understand of whether innovation and organizational learning can be considered as mediators in the relation between dynamic capabilities and firm performance. Building on discussed framework in the first section, authors suggest that innovation and organizational learning are intermediate concepts in relations between dynamic capabilities and firm performance (Figure 1).

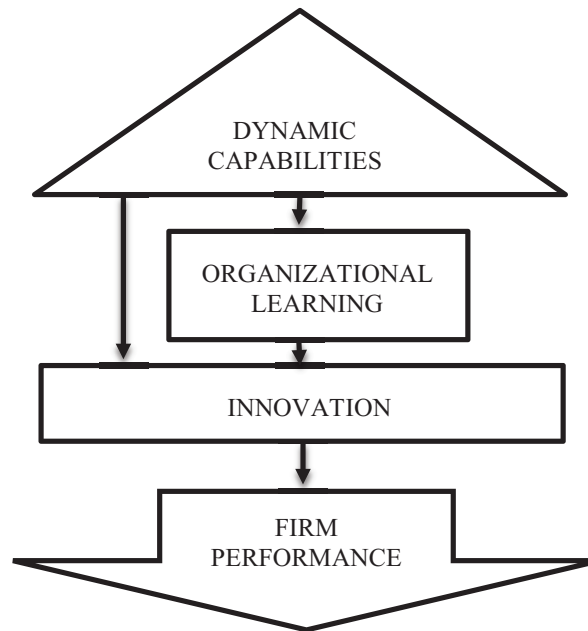


Fig. 1. Theoretical Model

Following the logic of proposed model, dynamic capabilities are seen as an overarching framework that explain how different routines and processes such as organizational learning and innovation, in our case, positively influence the firm performance and help enterprise to sustain competitive advantage. Taking into account that dynamic capabilities are built on organisational processes, knowledge systems, learning, and specific abilities (Dess, Lumpkin, & Eisner, 2010), the model suggests that organizational learning and innovation are two important processes that mediate the dynamic capabilities and firm performance relation. First, model assumes that dynamic capabilities of the enterprise will positively affect organizational learning processes. Dynamic capabilities are expected to help enterprise to build an intensive learning environment and enable enterprise's capability to learn. Second, it might be noticed that within proposed model we acknowledge both direct and indirect relation between dynamic capabilities and innovation. In the direct way, dynamic capabilities are expected to increase firm's ability to innovate, and are seen as an underlying factors that influence innovation success. In the indirect way, we propose that organizational learning might become a mediator in dynamic capabilities and innovation relation. We assume that innovation this way would become as a positive outcome of effective dynamic capabilities and organizational learning relation. Finally, we suggest that with the mediating roles of organizational learning and innovation dynamic capabilities might increase firm performance and allow firm to gain competitive advantage. We acknowledge that organizational learning and innovation are not the only possible mediators of dynamic capabilities-firm performance relationship. Other concepts such as entrepreneurship or organizational change might positively contribute to the relation between dynamic capabilities and firm performance.

Due to the limited length of this paper, herein authors propose only summary of the theoretical conceptions. Since one of purposes was to set the foundation for further empirical research, authors started to examine all theoretical notions empirically. Empirical testing results will be presented shortly.

Conclusions

Dynamic capabilities may be considered as the company's ability to undertake volatile environment's changes and productively use existing resources for creating new configurations of routines and resources. Though the concept of dynamic capabilities is comprehensive enough the core definitions of current concept point to the various organizational processes, such as integration, learning, modification, and others. This comes in line with the arguments among researchers that it is difficult to position dynamic capabilities within other concepts, and prove the role of dynamic capabilities in increasing firm performance. Even though previous studies already have proven the positive relationships to each other of analyzed concepts, research that examines the interrelationships between dynamic capabilities, organizational learning, and firm performance simultaneously is still missing. Therefore, this study is a stepping stone into such a research, as it develops the model of how all four analyzed concepts might be interrelated.

Consequently, according to the newly proposed perspective, further investigations are required to develop the relationship between dynamic capabilities and firm performance focusing on financial and non-financial performance indicators. After analyzing research literature authors assume, that this could be the key answer for finally setting the clear framework of dynamic capabilities, organizational learning and innovation interrelation, and it's' effect on firm performance. Further empirical testing of proposed model would contribute to the existing knowledge domain of dynamic capabilities, positioning dynamic capabilities within the organizational learning and innovation processes of the firm, and demonstrating the way of how firms might increase their performance.

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