

Dynamic Capabilities: Closing the Competence Gap in order to assure Exploitation of New Opportunities

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Current dynamics of business environment and challenges that businesses are facing force firms to reorganize resources for becoming more effective at opportunity identification and exploitation. However, exploitation of new opportunities is often challenged by competency gap at the firm level. Often current level of competence of the firm does not meet the requirements coming with the new opportunities. In the literature on management science, learning is perceived as one of the greatest contributors in smooth and directed resource reconfiguration process. The outcome of learning is often linked to new knowledge and competencies that allow successful exploitation of identified opportunities within an external and internal business environment. Therefore, this paper aims to propose hypothetical model on how the successful implementation of new business opportunities is linked to multiple-loop organizational learning and closing of the competence gap of the firm. The aim is achieved by synergizing extant literature in the fields of dynamic capabilities, entrepreneurship and organizational learning. Critical analysis of relevant research leads to the development of a conceptual model explaining the process of how the firm is able to close the competence gap and assure successful opportunity exploitation within the firm. This results in the formation of the research questions for future empirical research. The study adds value to the existing literature by identifying the learning process that stimulates successful opportunity exploitation, drawing on the multiple-loop learning perspective, and applying dynamic capabilities framework.

Keywords: *Corporate Entrepreneurship; Dynamic Capabilities; Multiple-Loop Learning; Opportunity Exploitation; Entrepreneurial Competencies.*

Introduction

Dynamic changes in the light of increasing competitive rivalry enable firms to adjust and transform their activities in order to sustain competitive positions within a market. Thus, many enterprises seek to exercise dynamic capabilities for expanding their knowledge and improving their ability to recognize and capture new opportunities, which are acknowledged as a crucial asset of the entrepreneurial firms (Hayton & Kelley, 2006; Franco & Haase, 2009). Scholars within the fields of organizational learning, knowledge management and entrepreneurship have acknowledged that successful exploitation of business opportunities is dependent on the firm's ability to close competence gap between present level of the competence and required new competence once new opportunity is captured. The idea of competence gap is evident in the work of Levinthal and March (1993) who argue that treating exploration and exploitation in learning activities as a dichotomous choice leads organizations to the decision problems which is caused by "myopia of learning". Inability of firms to correctly address the gap between present competence and new competence is caused by the failure to integrate strategic view into learning as well as transform its resources. This results in the failure to successfully exploit captured opportunities.

This paper suggest that dynamic capabilities view (DCV) assists firms in putting efforts to correctly address aforementioned gap. Dynamic capabilities are understood

as firm's "ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments" (Teece, Pisano, & Shuen, 1997, p. 516). Since its early development, the concept has been intended to stimulate innovative strategies (Salvato, Sciascia, & Alberti, 2004) through the reconfiguration of a firm's resources and routines (Zahra, Sapienza & Davidsson, 2006; Helfat *et al.*, 2007).

According to Teece, Pisano, and Shuen (1997), dynamic capabilities serve as an explanatory framework for analyzing firm's ability to gain competitive advantage in a period of uncertainty and change. Therefore, it might be argued that dynamic capabilities framework contributes to understanding of how assets that are possessed by firm or might be acquired by the firm could be combined or transformed in order to increase firm performance results in volatile business environment. Further, Dess, Lumpkin, and Eisner (2010) suggest that dynamic capabilities are built on organizational processes, knowledge systems, learning, and specific abilities. It is evident throughout the literature that dynamic capabilities are a unique way of interrelating learning processes within the firm and are dependent on firm's resources (Teece, Pisano, & Shuen, 1997; Dess, Lumpkin & Eisner, 2010). Furthermore, Helfat *et al.* (2007) name dynamic capabilities as the base for searching, selecting, deploying, and coordinating actions. These actions allow firms to react to changes in an appropriate manner and provide an opportunity to gain and sustain competitive advantage. Moreover, as stressed by Teece

(2007), dynamic capabilities allow entrepreneurial decision-makers to recognize opportunities within internal and external environments and to build future strategies that sustain competitive advantage and increase profitability.

In this paper we focus on established firms' efforts to remain competitive in volatile business environment and their need to successfully exploit new opportunities. Building on the Methe, Swaminathan, and Mitchell (1996) conceptualization of established firm, we define established firm within this article as an existing firm, which already has its product portfolio and markets portfolio. Therefore, we analyze opportunity identification and exploitation activities as part of the corporate entrepreneurship concept, where the main role of the corporate entrepreneur is to capture and exploit new business opportunities within internal and external business environments (Shane & Venkataraman, 2000; Franco & Haas, 2009). Exploiting identified opportunities has proved a challenge for firms as their present competence is often ill-equipped to support areas of new development (Hoskisson & Busenitz, 2002). Therefore, it is essential to renew and transform required competences of the firm, which might be achieved through the organizational learning activities. As stressed by Cope, "it is through learning that entrepreneurs develop and grow" (2005, p.379). The researchers have recognized the importance of learning to a firm's day-to-day activity and potential for growth and development since the 1960s throughout the development of organizational learning theory (van Grinsven & Visser, 2011). More recently, learning has been identified as the main factor in the development of dynamic capabilities (Rousseva, 2011; Krzakiewicz, 2013), performing entrepreneurial activities (Belousova & Gailly, 2013), as well as increasing firm's overall performance (Frank et al., 2012; Dulger et al., 2014; Chou & Ramser, 2019; Chung, Ding & Ma 2019).

Therefore, the research problem of the paper is - how to close the competence gap in order to assure successful exploitation of the new opportunities, that most of the time requires new competence. The aim of the paper is to propose hypothetical model on how successful implementation of new business opportunities is linked to multiple-loop organizational learning and closing competence gap of the firm. In order to achieve this aim, the following objectives are set: 1) to analyze the multidisciplinary literature on opportunity exploitation in the context of DCV; 2) to identify the role of multi-loop organizational learning in established firms; 3) to present a conceptual model explaining the approach of closing the gap between current knowledge base of the firm and opportunity exploitation; 4) to discuss, draw conclusions, and offer recommendations for future empirical research.

The results of this conceptual paper contribute to the research field of organizational learning, corporate entrepreneurship as well as strategic management, as it offers the integrating approach to the analysis of one of the key processes of entrepreneurship and corporate entrepreneurship – opportunity exploitation. Proposed conceptual model introduces multi-loop organizational learning as a way to allocate required knowledge resources for the successful exploitation of the identified opportunities at the established firm. Relevant knowledge is seen as the key resource within proposed model that results in successful exploitation of the

opportunities. Based on the literature analysis, two multi-loop organizational learning pathways are proposed for closing the gap between knowledge that is required for the firm in order to successfully exploit discovered opportunity and the knowledge that firm possess at the time of opportunity identification. Depending on the novelty of the identified opportunity to the firm one proposed pathway leads to the development of the radically new knowledge (higher-level learning approach). Another one, if the identified opportunity is close to the core business and competence of the firm - leads to the incremental adjustment of the knowledge that firm already possess (lower-level learning approach). The model also contributes to the extension of the Pisano (2017) concept of deepening vs broadening capabilities strategies going deeper into the lower-level learning for utilizing deepening capabilities strategy and higher-level learning for utilizing broadening capabilities strategies.

Literature Review

Opportunity Exploitation and the Need of New Competencies

The concept of opportunity exploitation has been analyzed widely in the broad field of entrepreneurship, including entrepreneurship within the established firm (Sharma & Chrisman, 1999; Shane & Venkataraman, 2000; Salvato, Sciascia & Alberti, 2004; Foss et al., 2013; Kuckertz et al., 2017). This attention to opportunity exploitation process might be explained highlighting the value that successful opportunity exploitation creates for the firm. Through the effective allocation of resources required for identified opportunities, opportunity exploitation allows building effective business systems and processes to gain returns from captured opportunities (Choi & Shepherd, 2004). As the focus of this paper is placed on the established firm's ability to successfully exploit opportunities, we discuss opportunity exploitation as one of the main aspects of the corporate entrepreneurship. Corporate entrepreneurship is also known as corporate venturing (Guth & Ginsberg, 1990; Zahra, 1993), intrapreneurship (Morris & Lancaster, 2006), and strategic renewal (Guth & Ginsberg, 1990; Zahra, 1993).

We adopt in this paper the definition of corporate entrepreneurship which was developed by Sharma and Chrisman (1999) who refer to corporate entrepreneurship as "the process whereby an individual or a group of individuals, in association with an existing organization, create a new organization or instigate renewal or innovation within that organization" (p. 18). Business development, expansion, and the creation of new services, products, and routines are all recognized as outcomes of corporate entrepreneurship (Villiers-Scheepers, 2012).

Teece (2014) contends that corporate entrepreneur primarily discovers and creates new competence and supports the commercialization of innovations. Entrepreneurship within the established firm is not limited to acknowledgement of new opportunities but at the same time it often creates those opportunities itself. Continuous engagement with surrounded environment in order to capture and exploit new opportunities is argued to be one of the main activities of entrepreneurially minded firms that seek to achieve and sustain competitive advantage (Villiers-Scheepers 2012). Therefore, corporate entrepreneurship

processes are essential for renewal and innovation activities in order to reach higher levels of performance (Lee, Peris-Ortiz & Fernandez-Guerrero, 2011). Within a firm, entrepreneurs build organizational capabilities that can assist in knowledge identification and creation (Teece, 2014).

Salvato, Sciascia, and Alberti (2004) suggest that firms, which succeed in sustaining competitive advantage through periods of rapid change and economic uncertainty, discover and exploit innovative entrepreneurial opportunities effectively. Specifically, opportunity identification and the ability to respond to these opportunities through the development of new processes, products, or services is a primary consideration of dynamic capabilities research (Drnevich & Kriauciunas, 2011). Firms have a chance to make better use of the resources at their disposal and resources that are discoverable in the external environment. Salvato, Sciascia, and Alberti (2004) argue that a firm and individuals playing decision-making roles within that firm are able to recognize, exploit, and utilize entrepreneurial opportunities because of their ability to access and successfully apply the information gained from inside and outside the firm. Moreover, literature on corporate entrepreneurship emphasizes that the creation of

opportunities requires sensing, developing, evaluating, and reframing opportunities (O'Connor & Rice, 2001). Building on the DCV, it is notable that corporate entrepreneurship theory reflects sensing, seizing, and partially reconfiguring activities. Sensing is reflected through opportunity recognition (Teece, 2014), seizing involves the evaluation of recognized opportunities (O'Connor & Rice, 2001), and reconfiguration might be recognized through opportunity exploitation activities (Salvato, Sciascia & Alberti, 2004). Opportunity exploitation in itself is about gathering required resources and getting involved in the series of activities that are aimed at informing different parties about the opportunity (Shane & Venkataraman, 2000). This way, opportunity exploitation process is closely linked to activities reflected in the literature on dynamic capabilities.

At the level of corporate entrepreneurship, entrepreneurial processes within firms are continuous and aimed at recognizing, capturing, evaluating, and exploiting opportunities (Shane & Venkataraman, 2000; Franco & Haase, 2009). Latour (2005) further developed Shane and Venkataraman's (2000) view and suggested another entrepreneurial process at the level of corporate entrepreneurship: legitimization of opportunities (see Figure 1).

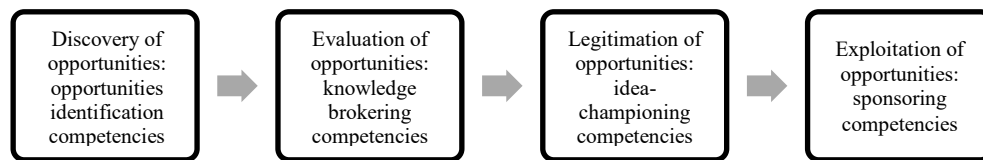


Figure 1. Corporate Entrepreneurship Activities in Relation to the Competences Needed (Shane & Venkataraman, 2000; Latour, 2005; Hayton and Kelley, 2006)

Discovery is about the recognition of new opportunities within the environment. Discovery activities involve the expansion of current knowledge bases and the ability to see potential value. Evaluation is a form of assessment that includes assessment of market, risk, demand, profit, and cost (Mitchell *et al.*, 2000). Evaluation activities result in the legitimization of opportunities by gaining approval from higher management (Morris & Lancaster, 2006). Finally, corporate entrepreneurship involves the exploitation of identified opportunities, incorporating various actions for bringing new ideas to the market. Opportunity exploitation is also related to resource accumulation and organizational culture (Shane, Locke & Collins, 2003).

In order to be successful in the above activities, corporate entrepreneurs and firms must develop specific competences which consist of knowledge, implementation skills, and personality characteristics (Hayton & Kelley, 2006).

In the case of corporate entrepreneurship, competencies reflect entrepreneurial roles that single individual or a team plays within the firm. These include opportunity identification, knowledge brokering, idea championing, and sponsoring. Opportunity identification or subsequent innovation is about opportunity recognition. Because innovation is often defined in technical terms, this role requires specialized knowledge. Moreover, the role requires an ability to identify new market, organizational, or

technological opportunities and combine new or existing resources in unique and creative ways.

Another competency in promoting corporate entrepreneurship is knowledge brokering, which involves assessing new sources of information and knowledge, transferring this knowledge, and combining new sources with existing sources (Hargadon, 2002). This way knowledge brokering might be associated with opportunity evaluation when opportunities are assessed according to the knowledge that firm possess at that time.

A third competence that stimulates corporate entrepreneurship is idea championing. Idea championing is associated with specific projects, continuation of which is seen through the commercialization process (Leifer *et al.*, 2000). Therefore, idea championing might be a crucial competence at the activities related to opportunities legitimization when decisions need to be approved by top management of the firm.

A final competency associated with corporate entrepreneurship role is sponsoring. Sponsoring involves gaining access to resources needed for specific projects (Hayton & Kelly, 2006). While championing involves the identification and selection of projects, sponsoring involves securing resources for those projects. Sponsoring requires deep technological and business knowledge and is essential competency for implementing exploitation activities for identified opportunities.

Having in mind that competences identified above for corporate entrepreneurship activities are based on the acquiring and accumulating new knowledge, it is evident that appropriate learning processes must be developed within the firms that would allow organizing present competence of the firm and acquiring new ones.

Re-organizing and Acquiring Needed Competence: Organizational Learning Approach

Franco and Haase (2009) refer to organizational learning as the operational process of obtaining information and converting it into knowledge. Organizational learning might also be seen as the detection and correction of error (van Grinsven & Visser, 2011), where error is seen as the conflict between intended achievements and what is actually achieved (Argyris & Schon, 1996). It is assumed that once the firm recognizes this type of conflict, it employs various learning activities that allow errors to be detected, corrected and result in the development of new competence or adjustment of the existing one.

According to Franco and Haase (2009), competence development as a process of organizational learning consists of three stages: knowledge creation, knowledge distribution, and knowledge application. Successful implementation of these competence development stages influences positive outcomes of organizational learning on firm's performance, including financial performance and productivity (Levinthal & March, 1993; Franco & Haase, 2009).

Knowledge Creation

Organizational learning might be seen as a key process in sustaining the effectiveness of corporate entrepreneurship

and dynamic capabilities as it enables managers to appeal to new possibilities within the external and internal environment (Stopford & Baden-Fuller, 1994). Consequences of such reactions to opportunities within business environments might include the creation of knowledge (North & Kumta, 2018) and unique intellectual property. Pitkethly (2001) argues that intellectual property is an essential part of the learning process not only by gaining it but also by achieving a leading competitive advantage in rapidly changing, competitive environments. Eisenhardt and Martin (2000) support this understanding and suggest that dynamic capabilities become more salient through processes of learning that generate new knowledge associated with intellectual property. Furthermore, as acknowledged by Chung, Yang & Huang (2015) it is learning activity that allows firms to develop the knowledge base for entrepreneurial activities. However, it is noticeable that speed is an essential attribute in such a learning process.

Knowledge Distribution and Application

Researchers identify several different levels of organizational learning. Most popular approach is presented by Argyris and Schon (1996), They differentiate between single-loop and double-loop learning. The former is the process of error correction where changes are made to routine behaviour (van Grinsven & Visser, 2011); the latter involves questioning and re-framing existing models, guiding decision making and behavior in response to changes in the external environment, consequently developing new ways of working. However, there is a number of scholars that elaborate on the different levels of organizational learning. The variety of concepts is presented in Table

Table 1

Dichotomous Models of Organizational Learning

Levels of learning	Key features	Researchers
Single loop and double loop learning	Result of single-loop learning is an adjustment of established ways of working in pursuit of goals under existing sets of assumptions, whereas double-loop learning is a process of questioning organizational norms and values, and building a new frame of reference.	Argyris and Schon (1996)
Bateson's learning levels	Learning levels 0 to IV where Level 0 learning is seen as the response to the stimuli to learn but no changes occurs (non-learning), Level I and Level II learning correspond to single loop and double loop learning, and Level III and Level IV are aimed at changes within the system and the society.	Bateson (1973)
Lower level and higher level learning	Lower level learning is relatively simple and may be no more than repetition of past behavior. Higher level learning results in the development of new complex rules, which change behavior.	Fiol and Lyles (1985) as cited in Spicer (2004)
Adaptive and generative learning	Adaptive learning is concerned with improving a procedure or behavior, while generative learning involves questioning this procedure, behavior or assumption.	Senge (1990)
First order and second order learning	First-order learning involves adapting actions and routines within existing (mental) frameworks and underlying assumptions, whereas second-order learning challenges the very frameworks and assumptions that underlie such actions and routines.	Virany <i>et al.</i> (1992)
Exploitation and exploration in learning	Exploitative learning is characterized as routinized learning, which adds to the existing knowledge and competencies of a firm without changing the nature of its activities. Explorative learning is non-routinized learning and involves changes in company routines and experimentation with new alternatives.	Levinthal and March (1993)
Incremental and radical learning	Incremental learning is about an error detection and correction that permits the organization to retain existing policies, procedures and objectives, whereas radical learning is about an error detection and correction that requires change to the organization's existing policies, procedures and objectives.	Miner and Mezas (1996)
Triple loop and quadruple loop learning	Triple loop learning is aimed at changes within the culture of organization, spirit and climate of organization. Quadruple loop learning is used for changes to be made within society as a whole.	Runciman <i>et al.</i> (2006)

Levels of learning	Key features	Researchers
Deutero and meta learning	Deutero learning is mainly seen as unconscious adaptive behavior that is largely based on communication within organization. Meta learning is considered to be a conscious reflection of single loop or double loop learning.	Visser (2007)
N-loop learning	N-loop learning reflects Bateson’s levels of learning, where lower N-loops are aimed at zero learning and Level I, Level II learning, and higher N-loops are reflecting Level III and Level IV learning. This kind of learning also takes into account the type of learner (N-type) and the nature of learning itself (N-way).	Simonin (2017)

Despite diverse typologies, Sadler-Smith, Spicer, and Chaston, (2001) argue that there are two distinct types of learning. Lower dimension (single-loop; lower-level; first-order; exploitative; incremental; adaptive) learning indicates a passive orientation to learning that is concerned with adaptation of what is already known. Higher dimension (double-loop; higher-level; second-order; explorative; radical; generative) learning indicates an active orientation to learning that involves developing new skills and generating new knowledge.

Having in mind the variety of labels applied to the dimensions of organizational learning, the terms single-loop and double-loop learning are employed in this study. Single-loop learning occurs when a firm deals with discontinuous changes in the external environment without changing the assumptions and goals that guide the firm’s actions (Sadler-Smith, 2006). Single-loop learning deals with immediate tasks and focuses primarily on learners’ actions (Sadler-Smith, 2006). New skills and capabilities are learnt during single-loop learning through incremental improvements (Eilertsen & London, 2005).

Double-loop learning occurs when a firm, in order to respond to the changes in its environment, modifies the underlying model that guides its actions (Sadler-Smith, 2006). According to Argyris and Schon (1996), change in a firm’s norms, values, and objectives must happen because its usual methods for error correction are not sufficient.

Researchers argue that both dimensions of learning are needed in order for firms to survive (Jansen, Van den Bosch & Volberda, 2006). However, some have noticed that both dimensions compete for the same firm resources; therefore, the relationship between these dimensions may be conflicting (Levinthal & March, 1993; van Grinsven & Visser, 2011).

For the purposes of this study, we analyze learning processes in the context of opportunity exploitation within established firm considering both dimensions (single-loop and double-loop) of organizational learning. The role of these dimensions is significant for successful opportunity exploitation because the use of organizational learning activities at both levels provides new knowledge for the firm as an important resource and an adjustment tool that enhances smooth opportunity exploitation process.

“Lower – Higher” Level Learning Approach as a Key for Closing Competence Gap and Opportunities Exploitation

Processes that take place at the level of opportunity exploitation within established firm require constant knowledge renewal to assist decision-making process. Knowledge renewal is therefore embedded through learning process, which helps entrepreneurs to renew competence

bases. According to Franco and Haase (2009), learning plays a central role in the entrepreneurial process as it allows new items of information to be combined and used.

Building on March’s (1991) exploration – exploitation dilemma, it might be noticed that central activities of corporate entrepreneurship (opportunity identification and opportunity exploitation) corresponds to exploration in learning and exploitation in learning. The broad definition of exploration in learning, takes into account experimentation, risk-taking, innovation activities and comes in line with entrepreneur’s tasks to identify new opportunities, to take risks, and create new products, services, processes, and ventures. Exploitation in learning, on the other hand, takes into account the ability to make choice, to select, to implement and execute (March, 1991). This way, exploitation in learning corresponds to corporate entrepreneur’s ability to make right decisions, allocate required resources. It is evident that at the level of corporate entrepreneurship exploration in learning and exploitation in learning activities collide. This means, that very often learning activities within entrepreneurial firm do not solely focus on particular level of learning. This way learning activities at the lower level may end up with the learning activities of the higher level.

When analyzing the learning process involved in corporate entrepreneurship, the first important question to address is: who is learning? Is the learner the corporate entrepreneur, the team, or the firm itself? Hitt *et al.* (2001) argue that corporate entrepreneurship requires a firm to foster a culture in which individual opportunity-seeking behaviour is aligned with organizational advantage-seeking behaviour. It is critical for entrepreneurial firm to create conditions for individual interests to be acknowledged. Individuals should be motivated to search for new opportunities and encouraged to cooperate in resource re-configuration processes (other word learning) and the exploitation of new opportunities (Wang & Chugh, 2014). Therefore, entrepreneurial learning should combine individual learning and collective learning. Researchers draw attention to the organizational environment where mutual learning processes between individual and the firm can take place (Franco & Haase, 2009; March, 1991). The organizational environment in this case is seen as procedures, norms, and rules where organizational knowledge is stored and constantly renewed by the learning of individuals (Wang & Chugh, 2014). Individuals, at the same time, follow these procedures in their learning process.

Because nowadays firms operate in a constantly changing and competitive environment, they must apply higher level learning activities in order to be able to keep pace with all the technological changes, changes in market and changes in consumer behaviour. In the present study,

double-loop learning is used to illustrate higher-level learning for effective opportunity exploitation process (see Figure 2). With higher-level learning, individuals and firms learn from activities such as searching, experimentation, discovery, and risk taking (March, 1991; Santos-Vijande, Lopez-Sanches & Trespalacios, 2012). Therefore, it is argued here that the learning process in this case starts with triggers in the external and/or internal environment. As specific events serve as a stimulus for entrepreneurial activity (Hornsby et al. 1993), and as firms need to function in a “rapidly changing environment” (Teece, Pisano & Shuen, 1997, p. 516), learning is likely to be oriented to informal learning activities, stimulating corporate entrepreneurship (Molina & Callahan, 2009). This is due to the need to learn swiftly and often immediately. Because the primary role of the entrepreneur is opportunity identification and exploitation, entrepreneurs are exposed at learning from incidental learning opportunities (Molina & Callahan, 2009). The internal organizational context is also important, as the internal procedures of the firm, such as management support, autonomy, rewards, and time availability, affect entrepreneurial intensity (Villiers-Scheepers, 2012). At this stage, the learning process is likely to focus on opportunity identification.

Once entrepreneurial opportunities are recognized within the firm and strategic decisions are made, entrepreneurial actions are taken that result in changes in organizational outcomes and resource reconfiguration. At

these phases, the learning process is focused on idea championing and sponsoring. Wu (2007), studying high-tech Taiwanese firms, showed that dynamic capabilities play a significant role in the transformation of entrepreneurial resources into firm performance. It was found that, without dynamic capabilities, which transform resources into competitive advantage, entrepreneurial resources do not improve performance. As later was stressed by Teece (2012), entrepreneurial activities and dynamic capabilities must come in line in order for the firm to succeed.

The supportive role in the learning process is played by organizational culture, which can either help or limit the entrepreneurial behaviour of a firm (Welter & Smallbone, 2011). One of the main features of organizational culture that stimulates entrepreneurial learning is empowerment. In an empowered firm, power is decentralized, and employees are given the freedom to make their own decisions. Empowerment helps a firm to adapt to changes in the environment and promotes innovative behaviour (Drumm, 1995, as well as enables development of new knowledge (Van Grinsven & Visser, 2011); therefore, it positively affects the double-loop learning process.

Methodological Approach

Based on analysis of the research literature, a conceptual model of closing the gap between knowledge and opportunity exploitation of the firm is built (see Figure 2).

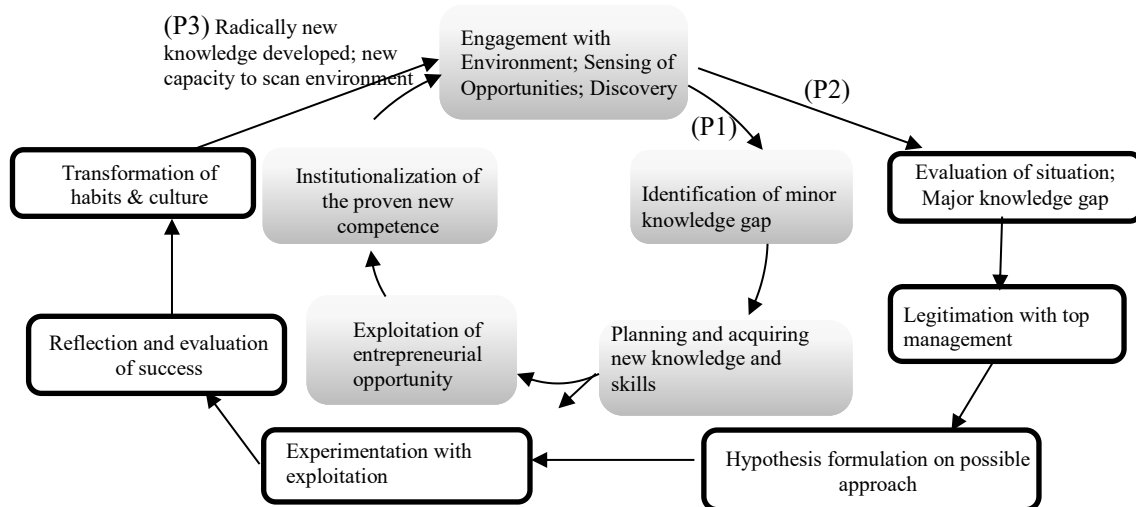


Figure 2. Conceptual Model for Closing the Gap between Knowledge Base and Opportunities Exploitation (Developed by Authors)

Taking into account DCV, we propose that dynamic capabilities of the firm stand at the top of learning and opportunity exploitation processes. This comes in line with Teece (2017) suggestion that depending on the strength of dynamic capabilities that firm possess the firm is able to align its resources and processes to a certain degree and speed. Therefore, firm’s dynamic capabilities influence every phase of learning and opportunity exploitation processes within the firm.

At the discovery stage, learning activities should be aimed at the development of such competencies as opportunity identification. When new opportunities are

recognized, firms benchmark them with present competence of the firm – the evaluation process. At this point, the important question to be addressed is: is the gap between the present competence and the required new competence minor or major? Depending on the extent of the identified competence gap, relevant learning activities should take place. If the identified competence gap is minor, it is anticipated that a firm is more likely to adopt a lower-level (single-loop) learning approach, allowing incremental changes in day-to-day tasks and routines. During the lower-level learning a firm plans and acquires new competence and skills required to exploit discovered new opportunities.

Further to the new competence acquiring activities, a firm might either experiment with opportunity exploitation and jump to the higher-level learning approach or continue with single-loop learning and exploit entrepreneurial opportunities that are later institutionalized as new competences. In this way, a firm creates incremental innovation that focuses on improvement of existing processes, products, and services. However, the cycle of learning does not close at this point: firms continuously engage with their environment and, in turn, discover new opportunities.

Proposition 1: minor competence gap between present competence and competence required for exploitation of identified opportunities within firm would lead to adopting a lower-level learning approach.

If the identified competence gap is found to be major, a firm is likely to follow a higher-level (double-loop) learning approach. Since double-loop learning involves changes in a firm's norms and assumptions, legitimation activities are of great concern. Further to legitimation activities, the corporate entrepreneur formulates hypotheses on possible approaches for opportunity exploitation and experiments in order to succeed. Therefore, competencies based on idea championing are required for learners at this phase of the learning process. New idea exploitation at the double-loop learning level requires changes to be made to the underlying model of competence. These changes, therefore, are influenced by the reflection and evaluation of exploitation. Successful and non-successful opportunity exploitation can lead to a radically new competence, transformation of habits and organizational culture, thus new capabilities to assess and address firm's environment as well as to explore new opportunities. With a higher-level learning approach, transformations and advancing in competence might lead to identifying new opportunities for innovative products or services. Similar to learning at a lower-level, learning activities are not terminated at this phase of the cycle. The firm continuously scans the environment and seeks new opportunity recognition, leading to the identification of a minor or major knowledge gap.

Proposition 2: major competence gap leads to adopting a higher-level learning approach.

Opportunity exploitation at both levels of learning generate new competence such as sponsoring competences. Lower-level learning approach adopts existing competence in order to exploit identified opportunities. Whereas higher-level learning cycle creates new knowledge and challenges values of the firm opening new opportunities. Therefore, in the case of firm's intention to exploit radically new opportunity, for example to set a new business model, if the firm fails to adopt higher-level learning approach, the firm will not be able to develop championing projects and allocate required resources. As a result, even greatest opportunity dies.

Proposition 3: Higher-level learning approach leads to radically new knowledge and capabilities of the firm allowing to address next cycle of opportunity exploration.

Discussion, Conclusions, and Insight for Future Research

This study applied the lower/higher levels of learning in order to illustrate learning processes that would support opportunity exploitation within an established firm. It discusses the complexity of the literature in the fields of corporate entrepreneurship and organizational learning in relation to DC by proposing a way for an effective collaboration between organizational knowledge and new opportunities exploitation.

We propose that well organized organizational learning activities, help to exploit new opportunities in constantly changing and highly competitive business environment. We argue that learning processes within the firm that seeks to sustain corporate entrepreneurship and be successful at opportunity exploitation should be based on core entrepreneurial roles and competencies. Those include new opportunities identification, knowledge brokering, idea championing, and sponsoring. Using the single-loop and double-loop learning model, we identified phases assuring relevant competence acquisition (knowledge, values, attitudes, etc.) to support identified opportunities. Together, these phases illustrate the learning process and explain the gap between firm's current knowledge base and opportunity exploitation might be closed. We argue that learning processes begin with exploration of the environment and the recognition of opportunities in external or internal environments. When new opportunities are identified, a firm evaluates them and determines whether the knowledge gap between the required knowledge for the new project and the firm's current knowledge is minor or major. Depending on the size of the identified knowledge gap, lower-level (single-loop) or higher-level (double-loop) learning activities take place. Lower-level (single-loop) learning elaborates on current knowledge base of the firm and deepens its competence, while higher-level (double-loop) learning widen competence of the firm and create radically new knowledge. Some of these activities enforce changes in routine behavior while others become transformational and modify the underlying model guiding organizational action. This echoes with Pisano (2017) capability strategies leading to deepening or widening of the firm competence depending on the conditions of the external business environment as well as strategic decisions of the firm. However, it is important to note that, in order to sustain higher levels of performance, firms need to continuously evaluate changes occurring in the internal and external environment and thus a need of new knowledge. Therefore, the learning cycle starts from the beginning and functions continuously. This supports the findings of previous empirical studies that claimed continuous learning process to be one of the key driving forces behind entrepreneurial activities within the firm (Urban & Wood, 2017). Furthermore, this type of learning might help firms to build adaptive capabilities for greater opportunity exploitation (Miocevic & Morgan, 2018).

The proposed conceptual model could, we believe, be a tool used by firms to successfully overcome obstacles during periods of change by proposing firms to seize the gap between existing resources (in this case knowledge) and the resources required in order to make a change for successful exploitation of new opportunities. According to identified

gap, further steps of successful opportunity exploitation are suggested.

The proposed model might be useful to firms when planning learning strategies and achieving entrepreneurial goals that are required to sustain competitive advantage. The model might improve understanding of the leadership role in entrepreneurial activities as well. We believe the proposed model of closing the gap between current knowledge base and opportunity exploitation could sustain corporate entrepreneurship competencies and therefore develop behaviors that lead to the better execution of entrepreneurial roles, including opportunity exploitation, and improving the overall performance of the firm. To promote this type of learning, firms should support entrepreneurial organizational culture, the central aspect of which is empowerment.

Development of this model adds value to the research fields of dynamic capabilities, corporate entrepreneurship,

and organizational learning by integrating these fields in a systematic way.

Future research might engage in the empirical investigation of the proposed ways in which the gap between firm's current knowledge base and opportunity exploitation might be closed. Learning phases and learning context and organizational characteristics might be further studied to develop a more holistic view of learning that fosters opportunities exploitation within established firms. For instance, organizational flexibility could be taken into account in future considerations, as it might have impact on the speed of adapting proposed model. Future studies might also develop and test a reliable means of measuring the relationships between corporate entrepreneurship (as a constituent part of dynamic capabilities) and organizational learning. Future research would benefit from the use of case studies.

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