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DYNAMIC CAPABILITIES ANALYSIS IN STRATEGIC MANAGEMENT OF LEARNING AND KNOWLEDGE ABSORPTION

Capacidades de análise dinâmica na gestão estratégica de aprendizagem e absorção de conhecimento

José G. Vargas-Hernández
E-mail: josevargas@cucea.udg.mx; jgvh0811@yahoo.com; jvargas2006@gmail.com
Ph.D. M.B.A.; Research Professor Departament of Administration – University center for Economic and Managerial Sciences, University of Guadalajara.
Endereço para contato: Periférico Norte, 799, Edificio G-201-7, Núcleo Universitario Los Belenes CUCEA, C.P. 45100,
Zapopan, Jalisco, México.

Gabriela Muratalla-Bautista
E-mail: gabymuba@outlook.com; gmuratalla@itvallemorelia.edu.mx
Master of Business Administration; Research Professor Department of Economic and Administrative Sciences –
Technological Institute of Morelia Valley, Mexico.

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Abstract

The objective of this study is to review the new trends in theoretical empirical and methodological investigations to analyze the dynamic capabilities of organizations that stablish the connections to manage the absorption of knowledge. The analysis begins with the assumption that the generation and development of dynamic capabilities of an organization positively favor the design of and execution of the processes to manage learning and that they define the processes of knowledge absorption. The method focuses on a theoretical and methodological analysis of the effective literature to obtain the main connections among the different ways to apply it in the Mexican context. Therefore, the conclusion is that the generation and development of management knowledge in dynamic capabilities of the organizations leads to the strategic learning and the possibilities to absorb this knowledge into organizational innovation.
Keywords: Absorption of knowledge. Dynamic capabilities. Strategic management of learning.

Resumo

Neste trabalho teve-se como objetivo analisar os progressos na pesquisa teórico-metodológica e empírica para analisar as capacidades dinâmicas de organizações que estabelecem as conexões para gerenciar a absorção do conhecimento. A análise parte do pressuposto de que a geração e o desenvolvimento de capacidades dinâmicas de uma organização devem incentivar positivamente a concepção e a implementação de processos de aprendizagem e de gestão que determinam a absorção do conhecimento. O método está voltado a uma análise teórica e metodológica da literatura efetiva para obter as principais conexões entre as diferentes formas de aplicá-la ao contexto mexicano. Assim, conclui-se que a geração e o desenvolvimento de conhecimentos de gestão em termos de capacidades dinâmicas das organizações levam à aprendizagem estratégica e ao potencial de absorção desse conhecimento em inovação organizacional.
Palavras-chave: Absorção de conhecimentos. Capacidades dinâmicas. Gestão estratégica de aprendizagem.

1 **INTRODUCTION**

This study of revision and analysis of scientific literature refers to the explication of the background and dynamic capabilities considered as an imperative in the emergency of a reference frame to explain the process of development and to take into account the challenges that a global competitive market has as well as the increase of economic turbulence. In this context of economical and doubtful complex, the enterprises require to continuously create, expand, grow, protect and keep the relevant base of resources (TEECE, 2007, p. 1319). Consequently, it explains the development of

new technological enterprises with a state of the art technology as well as the ones already stablished which require technical and specialized scientific knowledge specific to the industry requirements (COLOMBO; GRILLI, 2010).

The organizational knowledge is obtained through the learning of past and present experiences, from the acquisitions and form other inter organizational connections, especially in the external ambiences (COHEN; LEVINTHAL, 1989, p. 569-70). Once that dynamic capabilities have been analyzed as well as the processes of management learning and creation of learning, it is to be analyzed the capability of absorption of an organization, a dynamic capability related with the creation and use of knowledge as a competitive advantage (CARLSSON, 2005). The absorption capability is related with the creation and use of knowledge as skills of the firm to obtain and keep the competitive advantage (ZAHRA; GEORGE, 2002a, 2002b). The higher the capability level of absorption the more possibilities of the firm to be more proactive on the exploitation of present opportunities in the environment, no matter its current performance (COHEN; LEVINTHAL, 1990, p. 137).

This study presents a theoretical and methodological revision of the empiric and theoretical literature that it can be found today, to obtain an outcome that implies the Mexican context and absorption capabilities of organizations to be analyzed as the result of the design and implementation of the processes and strategies sustained in the theoretical perspective of the dynamic capabilities.

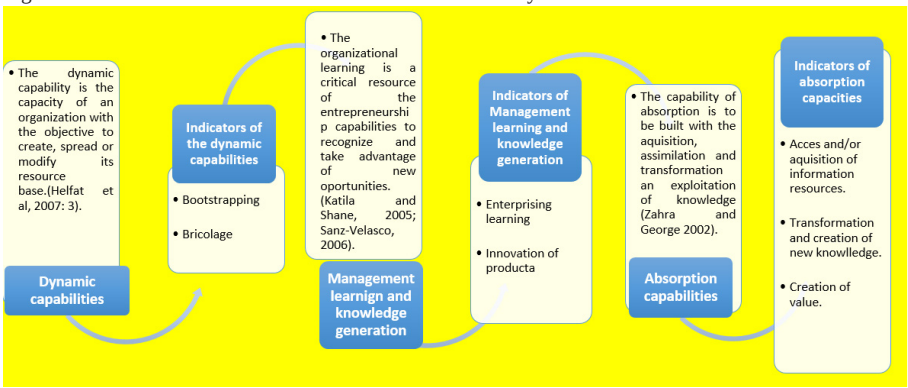
2 **GENERAL ASSUMPTION**

The creation and development of dynamic capabilities of an organization favor positively the design and implementation of the learning management and as a result the absorption of knowledge.

3 **ELEMENTS FOR ANALYSIS**

The analysis of dynamic capabilities and the strategic management of learning and absorption of knowledge sustained the following presentation of indicators that are to be observed in Figure 1.

Figure 1 – Presentation of variables and indicators in the study



Source: the autors.

4 **DYNAMIC CAPABILITIES**

The dynamic capabilities provide a theoretical perspective to analyze the creation of new enterprises (NEWBERT, 2005) and the development and growth of the existing ones. The perspective of the dynamic capabilities has become dominant in strategic management of organizations. There is no agreement on what it has to be understood as dynamic capability. The dynamic capabilities are the skills of a firm to restructure its resources and routines considered as the main capabilities. The ability of the firm to transform and to be rebuilt again in the creation of the value will be observed in the utilities obtained.

The dynamic capabilities are processes and routines to make changes that depend on the administrative cognition and intangible knowledge that make emphasis on the differences found (EASTERBY-SMITH; LYLES; PETERAF, 2009, p. S4). That is why the lack of autonomy or the exercise of autonomy on the organizational processes could be extinguished with intangible capabilities, so the focus must be on the reconfiguration of those capabilities themselves.

The development and reconfiguration of the dynamic capabilities is created through the processes of learning and the function of operational routines (ZOLLO; WINTER, 2002). The administrative cognition recognizes the administrative aptitudes that influence on the knowledge tracks and the exploitation of the capabilities (DOSI, 1982). Even though, it can contribute to the organizational inertia. The logic of the development and adaptation of dynamic capabilities of the organizations is a fundament of the analysis of Ghoshal and Bartlett (1988).

Dynamic capabilities are the ability to create innovative answers to environmental changes. It is the capability of an organization of creating, spreading or modifying its resources (HELFAT et al., 2007, p. 3). The benefits of creating the dynamic capability questions the empirical need to stablish the influential facts and the evaluation of tangibility on the process. The dynamic capability uses resources that adapts, integrates and develops competences simultaneously; it also uses the organizational background and the strategic routines that modify the resources acquired by integrating and combining and combining them again (EISENHARDT; MARTIN, 2000, p. 1107). For example, the administrative competences are relevant to obtain and manage financial resources for investors (COLOMBO; GRILLI, 2005).

The model of dynamic capabilities is a support for the entrepreneurship activities to give strength to the strategic choice in decision making (CHILD, 1972, 1997). These capabilities are related to the resources and to the performance of the firms (WU, 2007) already stablished. However, not much has been done with the new enterprises (ZAHRA; SAPIENZA; DAVIDSSON, 2006). The dynamic capabilities are essential to the creation of enterprises with a technological setting and the processes of innovation and growth (Macpherson et al, 2004). However, the concept of the nature of the dynamic capabilities it is yet not always according to what the technological enterprises require.

The dynamic capabilities of the new enterprises and the ones already stablished with a technological base, may be related to the processes of technological innovation; even though, it could be opposite due to the high risks in the operation. The competitive advantage is highly dependent to the ability to make new and radical innovations that may be achieved through the generation of technological ruptures. The dynamic capabilities generate these advantages in the transformation of the resources of the technological enterprises' base (MCKELVIE; DAVIDSSON, 2009; WU, 2007). The organizations which are superior and which have the meanings, have to proof whether they have or not these dynamic capacities (ZOLLO; WINTER, 2002, p. 341).

In spite of the analysis that Zahra and George did, the competitive advantage was analyzed from the perspective of their model based on studies of the intersectional investigation, they considered that time dimension is a relevant factor. The dynamic capabilities are essential for the creation, survival and growth of small enterprises, even though it is difficult to separate them from their effects (ZAHRA; SAPIENZA; DAVIDSSON, 2006) and their relationship with complex and uncertain ambiences (TEECE; PISANO; SHUEN, 1997). The competitive advantage is sustained on the heterogeneous configuration of resources (BARNEY, 1991) but it does not explain

how new and valuable resources can be created because some firms may obtain more benefits on balance (AMBROSINI; BOWMAN, 2009).

Ordinary capabilities allow to obtain benefits while the dynamic capacities operate continuously to modify and spread those the capacities (WINTER, 2003). Dynamic capabilities are different from the operational capabilities. However, Winter (2003) points out a difference between operational capabilities and organizational ones. Both of which have brought up great debates (HELFAT; PETERAF, 2003; WINTER, 2003; NEWEY; ZAHRA, 2009; PANDZA; THORPE, 2009). The organizational capabilities are a selection of repetitive routines and models (WINTER, 2003) that could turn into rigid and inerter ones (NEWEY; ZAHRA, 2009). The dynamic capability is the ability of a firm to reconstruct its operational capabilities which constitutes the reference frame. On the other hand, it is argued that the operational capabilities are routines to do activities that incorporate operational functions even more distinctive than just an idiosyncratic change on the base of resources.

The dynamic capabilities sustained the knowledge of the organization and the substantive capabilities that are found on the performance (ZAHRA; SAPIENZA; DAVIDSSON, 2006). This performance of the organization is the product of the information which is relevant as well as the ability to influence on the groups of interest. Therefore, the political processes influence on the groups of interest and on the decisions to design the strategies and the policies to accomplish the targeted objectives.

The dynamic capabilities as processes constitute the ability of enterprises with a technological base to answer to the ambience changes (LEONARD-BARTON, 1994) so the essential characteristic of a dynamic capacity is in a specified context that includes the strategic posture, the inclusion of the net and the specific facts of the context. The facts of knowledge as well as the acquisition, transformation and exploitation along with strategic decisions, the inclusion of nets and specific ambience facts will make better negotiations of the firms. Therefore, the categories that capture the facts of the dynamic capabilities are the strategic model, the inclusion of nets and the kind of ambience.

a) The strategic model of the firm to evaluate its role within the collectivity, that is the dichotomy typology that considers the exploitation and exploration (MARCH, 1991);

b) The nets of inclusion of organizations intra organizational that encourage the learning, (EDSTROM; GALBRAITH, 1977; HARZING, 2001); the possibility to open the reservoirs of knowledge (ARGOTE; INGRAM,

2000; MILLER; CHEN, 1996) is one of the conditions of the nets of inclusion and the flows of knowledge. The inclusive nets are based on the tested capabilities as a factor that goes beyond the organizational development;

c) The dynamic capabilities are more than a simple answer to the changing of the ambience (EISENHARDT; MARTIN, 2000). These capabilities are crucial to the development and growth of technological enterprises that face a complex and uncertain ambience (MCKELVIE; DAVIDSSON, 2009; WU, 2007). Some of the problems that face the new enterprises with a technological derive from the complexity and uncertainty in the ambience of global markets that promote the innovation of the products, the asymmetric information, etc. (BHIDE, 1992). In markets with moderated dynamic ambiences, the firms are to be adapted to the cost conditions that end up in higher costs than benefits (EISENHARDT; MARTIN, 2000).

The capabilities are based on the development and on the interchange of information through human resources of the firms unlike the resources themselves (CAVUSGIL; SEGGIE; TALAY, 2007, p. 160). The dynamic capabilities associated with the new investments on high technology enterprises are different from the traditional ones. During the stage of development of the product or service it is required great amounts of financial human resources highly trained. After all, the technology is the most important of the resources that enterprises have, so they must protect it (LÖFSTEN; LINDELÖF, 2005). However, not all the competitors follow the technical direction if they have the skills to implement on new technology.

The interaction of internal elements of all the organization defines the structure itself and due to the manifested structures it is that organizations have particular characteristics depending on their specific needs, developing reaction capabilities that are unique and furthermore the evolution takes place. The dynamic capabilities arose as a result of the learning; they constitute systemic methods of the enterprise to modify its operative routines (ZOLLO; WINTER, 2002. p. 8), transforming the behavior of the organization and its structure within.

5 DYNAMIC CAPABILITIES SUSTAINED ON PROCESSES OF BOOTSTRAPPING AND BRICOLAGE

The dynamic capabilities sustained on processes of bootstrapping and bricolage connected by learning processes create the base of the generation and growth of the new enterprises and the established with a technological base. The effectiveness of the use of techniques of bootstrapping and bricolage as tangible and legitimate innovations constitute the base for acquisition of the necessary resources to survive and the growth of new enterprises and the established ones with a technological support (BRUSH ET al., 2006; CARTER et al., 2003, MACPHERSON, 2005).

The new enterprises with a technological support not always have the available resources for their objective so the Access and acquisition of resources through bootstrapping and bricolage through the routines of experiential learning and integration of resources is necessary to get to use them. The creative integration refers to the ability of enterprises to combine the actives and the resources which will outcome into reconfigurations of the new resources (AMBROSINI; BOWMAN, 2009). The base of resources of new enterprises with a technological support requires the access of additional resources through the mechanisms such as bootstrapping, bricolage and learning. The utilization of the available resources or bootstrapped in the processes of organizational learning through the improvisation, practice and error occur with bricolage in a continuous and spontaneous way.

5.1 BOOTSTRAPPING

Bootstrapping is a dynamic capability that allows enterprises with reduced resources to create the opportunities to give an answer to the market by providing the acquired resources through the net. Bootstrapping is an instrument to be used by entrepreneurs to acquire financial resources, work, money, information and knowledge. Bootstrapping is the ability of enterprises with technological support to acquire resources through the application of imaginative and prudent strategies (HARRISON; MASON; GIRLING, 2004) such as money, knowledge, technology, facilities and employees (SEQUEIRA; MUELLER; MCGHEE, 2007).

Bootstrapping is a different traditional financial method based on the credit given to financial institutions and the individual deposits (CARTER; VAN AUKEN, 2005, p. 13) that involves the strategies to obtain the control of resources such as:

sharing, renting or ask for lent equipment (HARRISON; MASON; GIRLING, 2004). Bootstrapping is a dynamic capability of the enterprises with technological support that allows the firm to have access to the resources they actually have in a fast and efficient way. Bootstrapping is to be implied in the enterprises that and it remains agile and responsive to its strategic implementation (TIMMONS, 1999).

5.2 BRICOLAGE

Bricolage is the ability that enterprises with a technological support have to apply a combination of resources to obtain new opportunities in the market (NELSON, 2005). Bricolage makes things by applying the combinations of available resources (BAKER; NELSON, 2005). The entrepreneur reconfigures the resources available through the processes of learning, testing and error (MINER; BASSOFF; MOORMAN, 2001) with instruments to promote the dynamic capability like bricolage by using activities to be understood as the intuition and the applied perception free of risk (AMBROSINI; BOWMAN; COLLIER, 2009). The modification of resources constitutes the dynamic capability that goes beyond of a mere solution of problems.

Bootstrapping y bricolage are dynamic capabilities in new enterprises with technological support that are related as learning processes. The activities of bootstrapping to access the resources and the bricolage for the reconfiguration and integration of resources. Bricolage is the dynamic capabilities that enterprises with technological support are bound to the feedback process (CROSSAN; LANE; WHITE, 1999; JONES; MACPHERSON, 2006). Jones, Macpherson, Jayawarna (2011) suggest that bootstrapping and bricolage are connected to learning processes and therefore they are essential capabilities of the new enterprises with a technological support to ease the access to resources and new configurations of resources to speed up the innovation in dynamic ambiences.

6 **LEARNING MANAGEMENT AND GENERATION OF KNOWLEDGE**

The management of knowledge identifies and uses both individual and collective knowledge of the organization to ease its processes that make it more competitive (DAVENPORT; PRUSAK, 1998; O'DELL; GRAYSON, 1998, CROSS; BAIRD, 2000, BAIRD; HENDERSON, 2001). The firm is considered as user of the knowledge and its capability to teach it to the corporation itself (GUPTA; GOVINDARAJAN, 1991).

The organizational learning is a critical resource of the entrepreneurship capabilities to recognize and exploit new opportunities (KATILA; SHANE, 2005; SANZ-VELASCO, 2006). The learning is the experimentation that allows the performance of other tasks. The process of learning on improvisation, testing and error breaks out the configurations of the resources that generate the results (ZAHRA; SAPIENZA; DAVIDSSON, 2006; AMBROSINI; BOWMAN; COLLIER, 2009; AMBROSINI; BOWMAN, 2009). The processes of learning imply dynamic capabilities and administrative knowledge (EASTERBY-SMITH; PRIETO, 2008, p. 245). The dynamic capabilities include the administrative knowledge that directs the efforts and the heterogeneous nature of the administrative decision making (PANDZA; THORPE, 2009).

The processes or organizational learning influence the creation of the substantive capabilities and the organizational knowledge (COHEN; LEVINTHAL, 1990; ZAHRA; GEORGE, 2002; EASTERBY-SMITH; LYLES; PETERAF, 2009). The learning routines institutionalize the new routines of new technological support to develop the innovative processes of the products. The institutionalization of the learning processes balances the innovative routines of technological innovation which could lead to the generation of long term benefits or damages. The characteristics of the work and the structures and routines of internal communication within have a crucial importance so learning takes place effectively in the enterprises with technological support (JONES; MACPHERSON, 2006).

Dynamic capabilities allow flexibility of paths where exogenous changes are perceived relevant for adaptation of the company (PANDZA; THORPE, 2009). Coase (1937) supports the paths of creation of trajectories in the potential power of the firm negotiation stating that what distinguishes the agent servant is not the presence or absence of an economic incentive for work done but rather for freedom in which the agent develops employment activities (BLATT apud COASE, 1937, p. 404).

Learning processes of the new technology-based company are influenced by processes of bootstrapping and bricolage for reconfiguring resource base and renew internal and external, tangible and intangible resources into innovations that create new combinations of resources that respond to the demands of the complexity and uncertainty of the environment, no new dependencies are generated. The reconfiguration transforms resource into assets. Capitalization is the replication of systems and processes in other business units.

The resources and capabilities of knowledge in technology-based companies are not always available for entrepreneurs in the form of market transactions, so once they have been identified as necessary can use enterprise networks to obtain marking

paths and either through friends or family (LEE; JONES, 2008; STARR; MACMILLAN, 1990, BAKER; NELSON, 2005, WITT; SCHROETER; MERZ, 2008). Entrepreneurs of technology-based companies exploit technological innovations as a result of research with the purpose of obtaining economic benefits (CROWN, 1997; PÉREZ; VILCHIS, 2005).

The dynamic capacity is incremental when the resource base is continuously improving particularly in stable market conditions were also the incremental improvement of resources is sufficient to sustain performance (AMBROSINI; BOWMAN; COLLIER, 2009, p. S14). Promotors of activation may include the sense of threat of the crisis within the enterprise that substantially growths the substantial global market competition caused by increases in productivity in response to external innovations. External innovations are the biggest drivers of absorptive capacity (ZAHRA; GEORGE, 2002).

The processes of new product development are critical determinants of organizational knowledge creation (Nonaka & Takeuchi, 1995). The model of development of new products comprise the steps of creation and exploration, development and exploitation, dissemination, completion and export (ANCONA; CALDWELL, 1990). The diffusion capacity is plagued by not invented syndrome in tensions intra – unit to develop capabilities in paths as distinct factors more than made up by the firm. In the exploration phase or creation, opportunities are identified and generate ideas and concepts. In the development phase and operation, design and engineering it is done. For the dissemination phase, completion and export tests tare made and supported.

Investigations have overcome difficult hole if there is no enough data on the processes and longitudinal designs and with a holistic point of view on the development of new technology-based companies (PROKSCH, 2014) view. Organizational, administrative and technological processes that support the achievement of sustained competitive advantage help to develop dynamic capabilities with the incorporation of new knowledge in the development of new dynamic organizational capabilities (JACOBIDES; WINTER, 2005).

7 **ABSORPTION CAPABILITY**

Researchers have severely criticized the assumptions of the variable absorption capability which led to stifle research (LANE; KOKA; PATHAK, 2006) and a method of search model was proposed based on history, processes and results. The capability of conceptual absorption is based on the bond between the organizational learning (FIOL; LYLES, 1985; EASTERBY-SMITH, 1997; AKGUN; LYNN; BRY-

NE, 2003) and the dynamic capabilities and dynamic capabilities (COHEN; LEVINTHAL, 1990; ZAHRA; GEORGE, 2002; TEECE, PISANO; SHUEN, 1997; EISENHARDT; MARTIN, 2002; ZOLLO; WINTER, 2002). The absorption capability of the firm to identify, assimilate and exploit the knowledge of the ambience and the ability to recognize the value of new information, assimilate it and apply it for commercial purposes (COHEN; LEVINTHAL, 1990, p. 128).

The absorption capacity is a construct used to explain the complexity of organizational phenomena through the involvement of dynamic capabilities that enable the transformation through evolution or change. The absorption capacity is built with the acquisition, assimilation, transformation and exploitation of knowledge (ZAHRA; GEORGE, 2002). Therefore, the frameworks of the absorption capacity as a dynamic capacity are based on the ability of the firm to absorb, assimilate and transfer knowledge as central elements to the content of a dynamic capacity.

Absorption capacities of an organization comprise the acquisition, assimilation, transformation and exploitation. Creation, adoption and diffusion of knowledge within the firm (GHOSHAL; BARTLETT, 1988). Organizations as entities creating knowledge (NONAKA; TOYAMA; NAGATA, 2000; NONAKA; TOYAMA, 2005). The absorption capacity is the ability of organizations to recognize the value of information, assimilation and application troubleshooting. There is a conversion of the absorption capacity depending on the organizational levels that assimilates (COHEN; LEVINTHAL, 1990).

In the taxonomy of dynamic capabilities, the knowledge absorption capacity defined by Cohen and Levinthal (1990) as the ability of the company to identify and acquire new knowledge value is detected. Years later, this concept was recognized by Zahra e George (2002) the absorption capacity as a multidimensional construct. The absorption capacity refers to recognizing and assimilating the value of external information (COHEN; LEVINTHAL, 1990). It is the set of routines and developed to acquire, assimilate, transform and exploit knowledge in order to generate a competitive advantage (ZAHRA; GEORGE, 2002) processes. The absorption capacity is a set of organizational routines and processes by which the company acquires, assimilates, transforms and exploits the knowledge to produce a dynamic organizational capacity that relates to the creation and use of knowledge which encourages the ability of the firm to gain and sustain a competitive advantage (ZAHRA; GEORGE, 2002, p. 186).

The attributes that influence the absorption capacity of an organization are the intensity, speed and direction of the routines of acquisition of knowledge (ZAHRA; GEORGE, 2002). Pre-acquisition routines can create patterns that allow greater in-

tegration and performance (ZOLLO; SINGH, 2004). The firm adds value through receptive strategies (JARILLO; MARTINEZ, 1990) and a high degree of integration and those that add value through contributions of manufacturing cost. Dynamic capabilities have a process approach and the absorption capacity of more focused on content knowledge they can be integrated into the strategy as a process approach and content (HELFAT et al., 2007a).

The absorption capacity is a dynamic capability that influences the nature of the firm and creating other capabilities to develop the sustainability of an important competitive advantage (BARNEY, 1991). The absorption capacity has implications for labor beliefs, for the organizational structure and personal careers. The benefits of proven capabilities as differential relative (BIRKINSHAW, 1996) act as a factor for the future development acting as an antecedent of absorption capacity that can create dynamic capabilities (TEECE; PISANO, 1994).

The acquisition of knowledge is the ability to obtain new and relevant knowledge and is also contingent on flows of knowledge of the organization, incorporating external sources of critical knowledge (ZAHRA; GEORGE, 2002). In the early stages of the acquisition strategy of external information it is often the critical element with implications for the structure and internal procedures. Absorptive capacity is based in some cases on internal knowledge sources. Several case studies substantiating the model with examples such as the categorization of external and internal sources of information. Zahra and George (2002) recommend designs surveys on large samples of organizations. Once acquired information and knowledge from sources outside the organization, it is required to processes to create new knowledge.

Within organizations there are different types of resources such as materials, human and financial or economic well natural or environmental that today are the greatest economic value, therefore, companies or institutions develop strategies that create advantages to compete on the market. It is said that it is clear that resource--based perspective focuses on strategies to exploit existing specific advantages in the organization (BRAVO, 2005, p. 8).

8 **CAPABILITY OF POTENTIAL ABSORPTION**

A distinction between the potential absorption capabilities is a fundament of a variety of structural economies with a competitive advantage (MINBAEVA et al., 2003; ZAHRA; GEORGE, 2002, BIRKINSHAW; MORRISON; HULLAND, 1995) and the capitalization of resources (RUGMAN; VERBEKE, 2001).

The acquisition as an external source and the politic dimension of the mechanisms of integration that change the capability of absorption potential.

The ability to appreciate the knowledge depends on the ability to add it to the political agenda. Zahra and George (2002) say that the concept of capability of absorption and assimilation of knowledge and the capability to do it in stages of transformation and exploiting of knowledge. The potential capability of absorption is related to the acquisition of other resources by new technology-based enterprises that only have the value when they are combined with the resources they have (ADLER; KWON, 2002; JONES; MACPHERSON, 2006).

The ability to develop from the proven capabilities and collective basic knowledge of the firm combined with the expertise that comes internally from the organization representing the criteria of absorption capacity relative (LANE; LUBATKIN, 1998). The relative absorption capacity of firms is based on knowledge acquired from other companies that facilitates the development of capabilities (LANE; LUBATKIN, 1998, p. 473). Absorptive capacity relative (LANE; LUBATKIN, 1998) provides a differential on specific factors that incorporates idiosyncratic characteristics of receiving and diffusing units. The relative absorption capacity is the potential for a company to acquire, assimilate, transform and exploit knowledge and the power of negotiation.

Political issues are relevant in the conversion processes of absorption capacity potential to achieve the absorption capacity realized, because they relate to the essential mechanisms of social integration in administrative processes trying to influence behavior. The ability of the processes of post-acquisition integration is a dynamic capacity. The mechanisms of social integration that assimilate knowledge come to transform and exploit in a more complicated way than suggesting the initial model. The mechanisms of social integration as administrative and technical visits and the working group that reviews decisions are forms of influence on the behavior of members of the organization.

9 **POTENTIAL ABSORPTION CAPACITY**

Potential absorption capacity includes acquisition capabilities and assimilation. The acquisition and assimilation of knowledge form the basis of the potential absorption capacity (ZAHRA; GEORGE, 2002, p. 191), with which firms acquire and assimilate knowledge but do not have the ability to transform and exploit it. Potential absorption capacity relates only to the acquisition and assimilation, but not with the

(ZAHRA; GEORGE, 2002) application. The assimilation of knowledge includes the ability to capture and interpret the information and its application from which it derives. Acquisition capabilities and assimilation of information and external knowledge are critical to the operations of organizations, so they become very receptive for acquisition, processing, analysis, interpretation, processing and application.

Acquisition of capabilities and assimilation of an organization are receptive to information and external knowledge. Analyzing the influence of the absorptive capacity of the external knowledge in the development of dynamic capabilities of the firm. The absorption capacity of knowledge in the company develops the dynamic capacity. The ability of the firm to recognize the value of assimilated and applied to commercial means where new external knowledge is done under the premise that the absorption capacity that organizations need to assimilate and use new knowledge (COHEN; LEVINTHAL, 1990).

The application of external knowledge organizations requires the capacity to absorb and assimilate. Absorb the knowledge that is lowered and involving dialogue with the sources of information. The sources of information are within and outside the organization and the ability of the organization to see and absorb knowledge is based on experience and internal processes to share information. Differences between users or providers of knowledge (GUPTA; GOVINDARAJAN, 1991) that impact on the ability to absorb new knowledge. The existence of reservoirs of knowledge (ARGOTE; INGRAM, 2000; MILLER; CHEN, 1996), and its strategic orientation firms exhibit dexterity to absorb and use knowledge (ANDERSON; COVIN; SLEVIN, 2009) and those that do not have this capability.

Although the sources of information remain the capital of individuals, meetings help assimilate information at the organizational level. Potential absorption capacity enables organizations to be receptive and to acquire and assimilate information and external knowledge (ZAHRA; GEORGE, 2002a). Evaluation systems represent a potential for connecting the absorption capacity with the performance of the organization. A greater exposure to diverse and complementary resources from external sources, the greater the opportunity for the firm to develop the potential absorption capacity (ZAHRA; GEORGE, 2002a). External sources of information have to be actively built through the appointment of administrators each with its own external network of information shared networks. Differentiated networks (RUGMAN; VERBEKE, 2001) have the potential of different capacities for assimilation of learning.

The potential capability provides strategic flexibility to the company to quickly adapt to environments of high complexity and uncertainty. The absorption capaci-

ty is related to the potential power of negotiation (BOUQUET; BIRKINSHAW, 2008) and the potential for strategic learning (ANDERSON; COVIN; SLEVIN, 2009). As another consequence of this innovative process is the potential for strategic learning to adjust to the strategy of the firm and that the results from the proficiency of the firm derived on strategic action passes (ANDERSON; COVIN; SLEVIN, 2009, p. 219). The reconfiguration has its costs, so some of the instruments that have the potential to generate benefits also have the potential of destruction of benefits (AMBROSINI; BOWMAN; COLLIER, 2009).

As a factor, the absorption capacity on the original concept of Cohen and Levinthal (1990) is the ability of the firm to recognize the value of new external information assimilated and applied to commercial media. Factors leading to the absorption capacity relative evaluated considering the context and help establish constructs with absorptive capacity as a dynamic capacity. Specific environmental factors create the potential of the absorption capacity in different types of markets, either moderately or rapidly dynamic (EISENHARDT; MARTIN, 2000). In the knowledge learning process, it can be absorbed and transformed by the companies with the greatest potential for learning based on the capabilities and dependencies (LANE; LUBATKIN, 1998, p. 464).

Multinational corporations use their ability to facilitate learning mechanisms (ZOLLO; WINTER, 2002) with diffuse processes that demonstrate the dynamic of absorption capacity. Learning mechanisms implicitly and explicitly emphasize the accumulation of experience, knowledge and mechanisms to evolve coding capabilities (ZOLLO; WINTER, 2002).

10 **ABSORPTIVE CAPABILITY**

Absorptive capacity includes processing capabilities and operation. Absorptive capacity made of an organization capitalizes the knowledge acquired (ZAHRA; GEORGE, 2002a). The ability to reconfigure and transform knowledge is critical for organizations that have highly complex environments, uncertainty and turbulence (EISENHARDT; MARTIN, 2000). Processing capacity is based on the design and redesign of routines to combine existing knowledge and new. Processing capacity is based on routines to refine, extend and apply existing skills and new knowledge acquired and incorporating the existing ones to transform operations (ZAHRA; GEORGE, 2002).

The transformation and exploitation of knowledge acquired from external sources is a complex process. The operating capacity is based on routines to refine, extend and capitalize on existing skills and incorporating new knowledge acquired

and transformed (ZAHRA; GEORGE, 2002a). The core competencies that become rigid can be mitigated by the dynamic capabilities (LEONARD-BARTON, 1992) as the ability of the firm to adapt and reconfigure their capabilities provided by the development of the ability to identify opportunities to change, with formulation of answers to implement a course of action (HELFAT et al., 2007, p. 2).

The transformation involves conversion and refinement of knowledge to meet the needs of idiosyncrasy. Track information is difficult by the processing and exploitation because strategic formulation may be a holistic process with predetermined elements. The ability of the firm to recognize the two sets of information, combine to achieve a transformation capacity (ZAHRA; GEORGE, 2002, p. 190). The knowledge that could be exploited, depending on some important factors is the historical experience of the company, the right policy to influence the decision in the right direction and strategic priorities. Politicians in the sense that there are different actors and stakeholders with values and perceptions that affect their sense of organizational identity and influence access to information and knowledge and legitimizing the different criteria to accept performance factors.

CEOs proactively trying to influence perceptions and judgments of other members and stakeholders of that consume too much energy. Proactivity of the absorptive capacity suggests that it is the result of expectations of deliberate policies in such a way that influences the access and use of knowledge (COHEN; LEVINTHAL, 1990; VOLBERDA, 1998), in addition to the influence of elements and actors of the process.

The complexity with which the internal dynamism of the company provides the manager information that is of high value in decision-making to achieve the organizational objective and depend on the ability of management to consider not only "[...] the members of an organization increase their knowledge evenly in an increasing manner, but as a result of learning cycles, with several levels of analysis and temporally differentiable." (ZOLLO; WINTER, 2002, p. 9). Thus it is that the information would help the organization to develop dynamic capabilities that conform their ideal organizational design.

Time is an impeller in a temporal and historical dimension it generates innovations and justify the exploitation of acquired knowledge. Exploiting knowledge exceeds the performance of absorptive capacity processes relating the absorbed capabilities which can be capitalized. The exploitation of new knowledge through the absorptive capacity loosens competition in changing and dynamic environments (AMBROSINI; BOWMAN, 2009). Organizational practices are key in the process of exploitation of knowledge (MINBAEVA et al., 2003).

11 **INTERACTIONS OF INTERNAL AND EXTERNAL PROCESSES**

The concept of absorption capacity requires that internal and external organizational boundaries are clearly delineated so that the various internal units and its various business relationships are formed by a two-way communication and to consider local, national, regional, international, etc. identities involved. Socialization processes and the inclusion of intra organizational communication should be extended to the codified available knowledge and potential access (ZOLLO; WINTER, 2002).

At international and multinational level, organizations engage in strategic alliances, risk investment, mergers, acquisitions and various other forms of association. Knowledge facilitates understanding of internationalization based on existing knowledge (DIERICKX; COOL, 1989). The internationalization of research and development is carried out in an atmosphere of tension among the different subsidiary companies of multinationals, part of the explanation because they seek to income that benefit to their own interests (MUDAMBI; NAVARRA, 2004) opportunism for themselves (WILLIAMSON, 1981, p. 554).

The major changes actually happening in the use of technologies and media such as the Internet, make it harder to stay in the competitive market and to be required to invest in different resources and in updating the material resources and training of company staff. So each day it increases "The global competitive battles in high--tech industries such as semiconductors, information, services and software that have demonstrated the need to expand the resource-based view." (BRAVO, 2005, p. 9).

The differences in the capacities of research and development are different form the control of mechanisms to complex tax of firms (DUNNING, 1995) as reflected in the formal and informal administrative mechanisms used to implement the decisions (GUPTA; GOVINDARAJAN, 1991. 769). The internal processes are identified as mechanisms of activation and integration and ownership regime that facilitates (ZAHRA; GEORGE, 2002) control. The promoters of activation especially in cases of crisis. The inner adhesive is the degree to which knowledge is embedded and assimilated (SZULANSKI, 1996).

Time is an impeller in a temporal and historical dimension it generates innovations and justifies the exploitation of acquired knowledge. The longitudinal study Hyundai (KIM, 1998) shows that the administration builds crises at different times in order to promote learning and change, the absorption capacity of the acquired knowledge available at the time as an opportunity to identify and assess its adoption in quantity suitable to be assimilated.

Hyundai longitudinal study (KIM, 1998) shows that the administration builds crises at different times in order to promote learning and change. The absorption capacity of the acquired knowledge available at the time as an opportunity to identify and assess its adoption in adequate quantity to be assimilated. These temporal dimensions that affect lasting change processes and learning are connected to performance. Environmental factors are related to the absorption of new knowledge that make the process economically viable to build absorption capacity.

These temporal dimensions that affect lasting change processes and learning are connected to performance. The results are innovation, the formation of expectations, adaptation, knowledge transfer and diversification (VAN DEN BOSCH; VAN WIJK; VOLBERDA, 2003) are broader than the proposed sustained competitive advantage (ZAHRA; GEORGE, 2002) to include interactions between performance factors. This absorption capacity of the firm is based on the knowledge transfers between and within units (COHEN; LEVINTHAL, 1990, p. 129). The self-interest of the firm can mitigate the potential for transfer and diffusion of knowledge of specific capabilities of the same company that is part of a collective network.

In the renewal of learning routines tensions exist as in the case of exploration and exploitation of knowledge (MARCH, 1991) whether the processes are shared and institutionalized individually or collectively. The absorption capacity as a mediator that is seen as a dynamic capability and a mechanism by which the negotiation power is achieved. The negotiating power (MUDAMBI; NAVARRA, 2004) and voice (BOUQUET; BIRKINSHAW, 2008) are inextricably connected as control mechanisms and consequent flexibility of operations as a provider of knowledge rather than recipient thereof. The firm can develop the ability to exercise bargaining power depending on their ability to build absorption capacity as a mediating factor. Thus the bargaining power of the firm is related to the absorption capacity.

The implementation of the absorptive capacity as a relative differential operations firms, is a mechanism through which the bargaining power of emerging control systems of corporate governance (WILLIAMSON, 1981) is achieved. Its role as corporate governance structures (WILLIAMSON, 1981) has implications in the processes of organizational decision making, as the agency theory as a perspective to analyze the cooperative effort (EISENHARDT, 1989, p. 72). Elections and incentives in the agency theory relate to the complexity of the forms of control (O'DONNELL, 2000, p. 541) as an important element for strategic mobility.

The agency theory uses a dyadic approach between the principal and the agent to explain the autonomy of the subsidiary companies of corporations that imple-

ment the guidelines and decisions made in the parent organization, potentially limited by risk aversion (EISENHARDT, 1989; GROSSMAN; HART, 1986). This asset can capitalize on the position of the firm in a collective network as the case of subsidiaries of multinational firms (DIERICKX; COOL, 1989). The subsidiary companies are distinguished by differences in their bargaining power either be attributed to financial aspects or the capitalization of intangible knowledge flows (MUDAMBI; NAVARRA, 2004; ASAKAWA, 2001).

The absorption capacity of an organization is critical to develop innovation capacity (COHEN; LEVINTHAL, 1990). While innovation processes develop in technological companies, tensions between exploration and exploitation arise, the institutionalization of routines learning processes generate structural rigidities and dependence (DAVID, 1985; LEONARD-BARTON, 1994). In the routines of exploration and learning processes tensions (MARCH, 1991) are created.

There has been numerous empirical research on the absorption capacity from different perspectives, such as the analysis of dynamic capabilities, organizational learning (Huber, 1991; KIM, 1998), industrial economy and theory based on resources (LANE; LUBATKIN, 1998). The perspective based on the resources of the company, the framework of the dynamic capacity analyzes the evolution of the firm through transformations focused on access, a concept that extends the dynamic capacity (ZAHRA; GEORGE, 2002 to its resources) as knowledge acquisition, assimilation, transformation and exploitation. Seeking opportunities in the environment and the capitalization of resources necessary for its operation are essential (BARRINGER; BLUEDORN, 1999). The preexisting knowledge is recognized by the ability of firms to recognize the two sets of information and combine them to create with the ability to transform new knowledge (DIERICKX; COOL, 1989).

Once the firm acquires and absorbs capabilities, they tend to evolve and to its development as dynamic capabilities that structure organizational change. Organizations exposed to exchange and share knowledge through entrepreneurial networks influence decision-making processes positively to the future development of dynamic capabilities (MARCH; SIMON, 1993; MCGRATH; MACMILLAN; VENKATARAMAN, 1995). Recruit managers who already have external knowledge networks and mechanisms to capture internal data. This pro activity is important to establish the conditions of the pro structural external networks that facilitate the acquisition of information and strategic knowledge. Integration and reconfiguration in existing technology-based companies' resources to carry out innovation processes is complemen-

ted by access to corporate networks for obtaining external resources (LIECHTENSTEIN; BRUSH, 2001).

Employees who are part of the networks conjoined internal and external resources and have access to existing knowledge, boost capacity to create knowledge of the company (SMITH; COLLINS; CLARK, 2005). Very dynamic markets require products and services developed with superior capabilities characterized by experimental processes to accelerate the creation of value through the unification of prior knowledge with the new clear knowledge in technology changes so that revives the competitive advantage transcendent through regeneration capacity (RINDOVA; KOTHA, 2001).

The proposal Zahra and George (2002) that the regime of appropriateness moderates the relationship between the absorption capacity and sustainable competitive advantage and does not allow mechanisms d isolation but rather of configurations and combinations of knowledge (ZAHRA; GEORGE, 2002, p. 197). Appropriateness regimes are related to the transfer of personnel between competitors that makes the critical knowledge remains internal while external relations are restricted to academics and scientists. These organizational boundaries co-exist and differences of professionals each with their own values, norms and practices identities, as well as the formal and informal structures and lines of authority and report co-operate.

Appropriateness regimes have an impact on the competitive advantage depending on the competition. In cases of low appropriateness, knowledge and its exploitation is combined critical systems, individual and collective experiences and path dependence High appropriateness of technical innovation is critical to competitiveness in low turnover (EASTERBY-SMITH et al., 2005).

There is positive evidence of the existence of the absorption capacity and enterprise networks in survival and economic growth (RONGWEI; ZHANG; YAN, 2010), highlighting the intra and importance inter organization to strengthen business in the (ALINAGHIAN, 2012) and the absorption capacity as a multidimensional construct of MSMEs in Colombia (GONZÁLEZ CAMPO; HURTADO, 2014).

12 **SOME METHODOLOGICAL CONSIDERATIONS**

The methodological triangulation of variables here considered, dynamic capabilities, learning management and knowledge creation and absorption capacity, confirms the model that emphasize qualitative longitudinal aspects that presents evidence of aspects that cannot with quantitative methods, in part because the different

logics of scientific discovery. Quantitative methods require focused frameworks to filter comments before data collection reference. More research that mixes the qualitative and quantitative in the internal processes of absorption capacity in different types of organizations is required. Each of these perspectives have their own value and both are complementary in the phenomenon of absorptive capacity (ZAHRA; GEORGE, 2002).

The model shows that the absorption capacity can rely on qualitative research, the complexity and elements that are critical. Qualitative studies require observations to be informed by a well-supported theory. The absorption capacity is the ability of the firm to recognize the value of new, external information that can be assimilated and applied for commercial purposes (COHEN; LEVINTHAL, 1990). Companies invest in the absorption capacity in basic research if you have access to and learn from existing research.

The path dependence as a school of thought plays an important role in explaining the evolution of the firm is not stochastic and non-random and evolutionary economics Helfat et al. (2007, p. 100). Dynamic capabilities are a path dependence (TEECE, 2007; ZOLLO; WINTER, 2002; KOR; MAHONEY, 2005; NEWEY; ZAHRA, 2009) because the ability to acquire basic resources that complement may be easier to create them. The development of absorption capacity can be a dynamic capability which in turn affects the ability of existing absorption and therefore the resource base of the firm. Dynamic capabilities are considered dependent way (TEECE, 2007; ZOLLO; WINTER, 2002; KOR; MAHONEY, 2005; NEWEY; ZAHRA, 2009).

The arguments that the technologies used to develop absorptive capacity in the capture and knowledge creation-centered organizations somewhat contradict research in strategic management emphasizes the path dependency that influence organizational decisions when new knowledge-based processes are developed and technology and new products and services (ZAHRA; GEORGE, 2002b).

In the logic of dynamic capabilities (TEECE; PISANO, 1994; TEECE; PISANO; SHUEN, 1997; TEECE, 2007; HELFAT; PETERAF, 2003; ZOLLO; WINTER, 2002) are on their way dependence evolution and change of the firm because it depends on the story previous. These capabilities cannot be easily imitated. Absorptive capacity is a nonlinear (ZAHRA; GEORGE, 2002) process. The organizational memory systems store information and knowledge repositories in terms of processes and results make sense and knowledge to assimilate new knowledge.

13 **CONCLUSION**

The generation and development of management knowledge in terms of dynamic capabilities power strategic management of learning and therefore the potential for absorption of knowledge and organizational innovation. The capacity of absorption and assimilation are the routines of the organization to process, analyze, interpret and understand information and knowledge from external sources. The absorption and assimilation of knowledge influence the problem solving skills and therefore the ability to create and develop new knowledge through innovation processes.

The external innovative process resulting in internal innovation is a driver that is very sensitive to the organizational crises during absorption of knowledge. The firm may internalize this knowledge and adapt it to your requirements and disseminated within the organization. The internalization of knowledge makes relevant changes according to your needs. If the company is global technical expertise in the collective experience of innovation and relevant experience, whether the administration heeds researchers.

However, the competitive international environment, such as evolutionary changes in the structures of the competing firms and emerging corporate policy generate opportunities for innovation and the first signs of crisis in cases of future investments. Firms connected to international networks have a better position to capitalize on the collective resources that lead to increased accessibility to knowledge.

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