



A FIRM'S COGNITIVE PERFORMANCE THROUGH THE ABSORPTION CAPACITY

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We find it useful to address the subject of transition from the traditional performance based on tangible resources to cognitive performance based on intangible resources. This passage demonstrates that the creation and sustainability of the firms are in an environment able to perform cognitive performance. For this, the absorption capacity plays a key role in the incarnation of cognitive performance of a firm. Besides, the absorptive capacity is actually nothing but a dynamic ability with which the firm forms and maintains its competitive advantage. This capacity is built through organizational processes leading to ensure the acquisition, processing, exploitation of knowledge, whether acquired or potential, in order to build a dynamic organizational capacity. Therefore it is considered one of the major factors of learning, with which the company learns and solves its problems. Hence the formulation of our fundamental problem is to know if the firm can develop outside of the control of the triggering factor for their adaptation to national and international context, namely their absorption capacity and exploitation of innovations.

Keywords: Knowledge, Absorption capacity, Cognitive performance, Innovation, Value creation.

Introduction

In an international environment where innovation has a key strategic character in the quest and maintaining of a competitive advantage, the role of information is decisive. After an era of wealth and financial growth, it is becoming increasingly clear that we are in an era of growth based on information control. This information is accommodated with a collective intelligence that boosts its own innovation process. Therefore, we postulate that upstream technological and competitive monitoring directly influence patenting and technological leadership. Monitoring, benchmarking and knowledge management would be complementary tools for disruptive innovations that create a competitive advantage in the long term.

In short, the mastery of knowledge is a key factor for the performance and thus the competitiveness of the company. Hence any business needs to develop its internal capacity for knowledge creation and interpretation so that it can develop its competitiveness.

Finally, we believe it is essential to identify and control the trigger for the adaptation of firms to the context.

Our methodological approach is an analytical method, based on an analysis of quantitative data about innovation survey of French firm sets. We define several variables (including managerial and planned order) and a dependent variable, namely that related specifically to innovation and performance.

For this, our pursued results are about modeling relationships between absorption capacity, the incarnation of cognitive performance, innovation and value creation or performance of organizations in their market.

Our conclusions base on the role absorptive capacity of the firm which has a positive influence on the incarnation of cognitive performance through enhancement of its intellectual capital, which is translated in innovation. The firms should be interested to enrich their intellectual capital in order to refine their absorption capacity. They should conclude cooperation agreements with international partners to increase their chances to innovate and improve their cognitive performance.

Toward A Cognitive Performance (Intangible Resources)

Companies involved and specialized in goods and services sectors with intangible nature have a specification in terms of growth. This concept is actually linked to disruptions in the global economy, which leads us to be more interested in the growing role of immaterial, which has become the main engine of developed economies.

Moreover, the concept of performance is a reflection of results of all company activities. Therefore, the performance of a firm takes several dimensions such as customer satisfaction, product quality, effectiveness and efficiency of processes, costs management, compliance with laws, timing, places and the quantities of deliveries. Traditionally, much of the performance is evaluated based on financial ratios that are actually tangible.

In the strict sense, a performance is an encrypted result from the perspective of classification (with respect to self - improve performance and /or compared to others). The performance evaluation is therefore built under a repository, a scale of measurement.

In this regard, the term "measurement" refers to a tangible variable or elements that can be quantified, while the term "indicator" means an intangible variable, difficult to measure.

In general, the firm must use cookies measures, which refer to past results, and the drivers that correspond to factors that are responsible for the performance, so that induce performance.

Many qualitative and quantitative empirical studies have shown the relevance of the concept of absorption capacity, explaining the competitive advantage (Teece, D.J., Pisano, G. et Shuen, A., 1997), but also an innovation of the firm.

The Indicator Absorption Capacity of Cognitive Performance

In reality, the absorptive capacity is a dynamic ability with which the firm forms and maintains its competitive advantage in long-term (Zahra, S.A. et George, G., 2002), which means that this capacity is built through organizational processes leading to ensure acquisition, processing, exploitation knowledge acquired or potential, in order to build a dynamic organizational capacity. Therefore it is considered one of the major factors of learning with which the firm learns and solves its problems (Kedia, B.L. et Bhagat, R.S., 1988).

Alternatively Absorption capacity ("absorptive capacity") refers to the ability of an individual (and by extrapolation, an organization) to acquire, assimilate knowledge from another individual (or yet another firm or institution), then turn them to better use.

1. The dimensions of the absorption capacity

The concept of absorption capacity enables the undertaking an obligation to enhance its absorption capacity in order to enhance its chances of innovation. This ability requires various skills to the firm hurdy-access external knowledge first step. This requires a composition tasks such us sharing,

transformation and implementation of knowledge at the heart of the company by improving the basic skills (Daghfous, A., 2004) on the one hand, and enhancing communicative structure between the firm, its unity and its external environment, on the other hand (Cohen, W. M., & Levinthal, D. A., 1990). The absorption capacity is constituted by four different dimensions:

- **Acquisition of new specific knowledge:** is to design a new knowledge to the firm (Welsch, H., Liao, J. et Stoica, M., 2001) through the acquisition and exploitation of external knowledge relevant to its activities (Zahra, S.A. et George, G., 2002), taking into account the different prerequisites.
- **Assimilation:** to understand, master and absorb external knowledge with which the firm gives a valuation of its core competencies, and develop an appropriate process for knowledge assimilation of operations from the first dimension of absorptive capacity (Zahra, S.A. et George, G., 2002).
- **Transformation,** is to develop routines facilitating the combination of existing knowledge with newly acquired skills and assimilated. Both components are internalization and conversion feature to measure the effect by the number of ideas and research new products.
- **Exploitation:** which aims to apply the new knowledge of external commercial manner to achieve organizational goals (Lane, P.J., & Lubatkin, M., 1998). Routines allow the firm to refine, extend, and to exert influence on existing skills or create new ones by incorporating acquired and processed knowledge (Zahra, S.A. et George, G., 2002). These provide a measure by the number of patents or new product announcements.

2. Factors affecting the absorption capacity

The absorption capacity is affected by both internal and external factors (Daghfous, A., 2004). Assuming that firms can successfully assimilate and apply external knowledge without a high absorption capacity. This obligates us to highlight this concept by exploring its critical factors through its impact on the performance of the transfer.

An exploratory type of learning is fundamental to the ability to create variety and adaptation (McGrath, R.G., 2001). Through efficiency, range, and flexibility, we try to embody this concept in the strategy of the firms, with which they improve their performance, including cognitive performance.

The efficiency of absorption of knowledge refers to the ability of organizations to identify, assimilate and exploit knowledge from a cost perspective and type of economies of scale. While the extent of absorption of knowledge based on the amplitude of the knowledge that the organization operates. Finally, the flexibility of the absorption of knowledge referring to the organization's ability to access the additional knowledge and reconfigure the existing. Van Den Bosch et al. (1999) consider the dimensions "flexibility" and "scope" of the absorption of knowledge are strongly associated with the type of adaptations "exploration" of the configuration of the company's knowledge (March, J.G., 1991), while the "effectiveness" dimension is related to the adaptation type "exploitation".

Meanwhile, the concept presents a perspective of network types on the basis that the organizational units can produce more innovation and better performance if they occupy central positions in their network; they thus access the new knowledge developed by other organizations but depend largely on the absorptive capacity of the units and its ability to successfully replicate the new knowledge.

Presentation of the Sample of Cognitively-Performing SMEs

In this first issue, starting from the analysis of a sample of 1,600 French SMEs cognitively efficient, we will try to identify the trigger of the performance and competitiveness of the latter.

The sample selection based on a number of significant characteristics of this type of SMEs (Workforce, Industry, and sales) during the period 1998-2008.

Thus, the study shows that the overall number has continued to grow. And so we see a job creation on a regular basis from one year to another. Is a positive trend from roughly doubled (from 2058-5662).

In addition, the importance of the study is based on the diversity of the membership of the firms in question sectors. What makes essential to pay attention to these job-creating sectors, which have the expertise and an indisputable adaptability. Namely: Engineering studies and technical controls, IT Services and Pharmaceuticals.

Indicators of the Absorption Capacity of SMEs

The emphasis is on the first dimension (knowledge acquisition) and the last (exploitation of knowledge) as they successively represent the point of departure and arrival point of the absorption capacity development process within SMEs.

1. From acquisition to knowledge exploitation

The acquisition can be measured by research expenditures and development regardless of their location. In general, the expenditure is intended to acquire or develop knowledge. For this, we can deduce that the increase in spending means one way or another, a tendency for SMEs to conduct a positive process in which they can increase their absorption capacity.

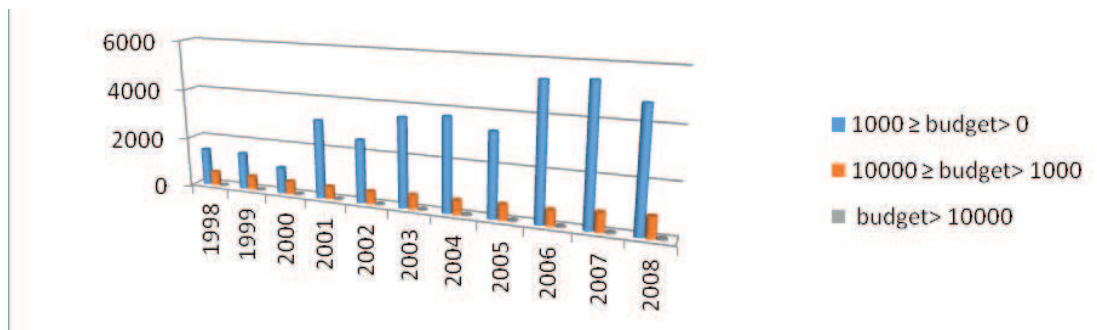


Figure 1. Budget evolution

Furthermore, patents represent the end point of the process of absorption capacity. It is considered the fruit of a whole process. The number of willing patents can give a meaningful picture of the processing operation and exploitation of knowledge arranged to SMEs.

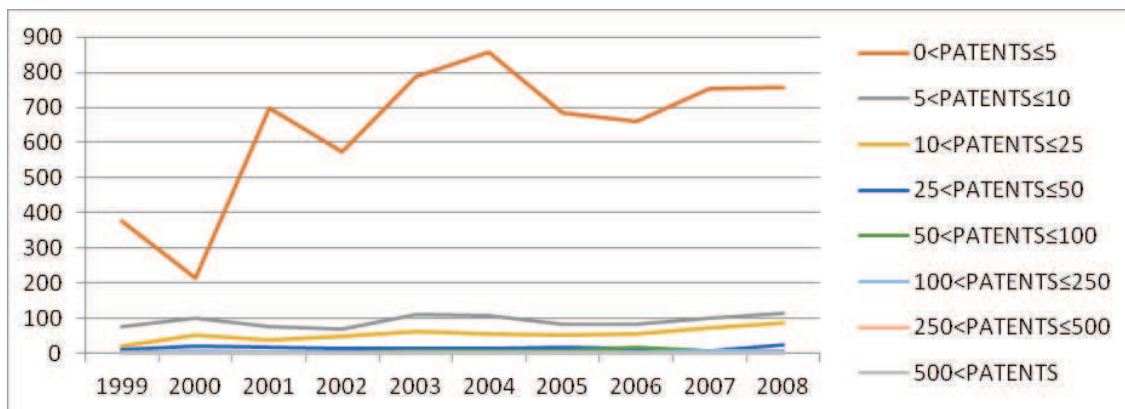


Figure 2. Evolution of patents

2. Achieving cognitive performance

To achieve this level of performance, we must determine the incentives to develop the absorptive capacity as a firm level indicator of this performance.

2.1. Incentives absorptive capacity

Among the elements, we find innovation and the existence of a research center, the spending rd but also the number of staff assigned to research.

In fact, the research center enables the firm to develop and combine the different intangible resources, and the spending on R & D is considered the creation of nursery outsourcing but also the internalization of knowledge the incarnate adequate skills to creating value for the firm.

In addition, innovation plays the role as an indicator of the level of absorption capacity; particularly it refers to the product of this capacity and contributions to highlight its cognitive performance.

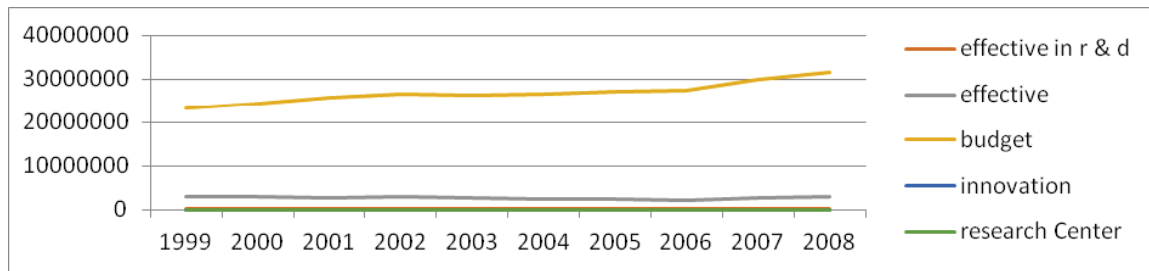


Figure 3. Evolution of incentives elementary

2.2. The relationship between the incentives of the absorption capacity

The correlation between these variables refers to the need to understand the links between the different dimensions of absorption capacity.

Table 1. The relationship between the incentives of the absorption capacity

	effective in r & d	budget	innovation	research Center
effective in r & d	1.0000			
budget	0.8171	1.0000		
innovation	0.5703	0.7886	1.0000	
research Center	0.5513	0.8263	0.9289	1.0000

By focusing on the correlation results between the variables likely to encourage the absorption capacity, it is essential to encourage the firm to focus on pertinent to showcase his skills, but also its intangible capital. The model adopted for the creation of value is determined by the ability to harness intangible resources in order to improve the cognitive performance of the firm.

Conclusion

The specification of the topic shows the importance of the proper use of various resources. Intangible capital takes a crucial role in this.

Our conclusions based on the role absorptive capacity of the firm which has a positive influence on the incarnation of cognitive performance through enhancement of intellectual capital, which is translated to innovation. The firms should be interested to enrich their intellectual capital in order to refine their absorption capacity. They should also conclude cooperation agreements with international partners to improve their chances to innovate and improve their cognitive performance.

Cognitive performance of the firm appears in its ability to translate his knowledge and understanding of the environment in reality, especially in patent forms to conquer and take a competitive position.

Therefore, its ability to assimilate knowledge based on the weight of jurisdiction over the global workforce but also it's spending on research and development. Also, have a research center may allow assimilating the different external knowledge and reach is developing new methods to acquire new.

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