### SMES PERFORMANCE: ANALYSIS OF THE INNOVATION ROLE

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**Abstract:** Today the business environment is characterized by the globalization of markets, rapid technical developments, the reduction of the life of products and activities, the benefits acquired traditionally are no longer assets on which companies can count for develop.

Companies must look for new options to diversify their offerings and markets, which contributes to their growth and development and to finding relevant answers to the question of survival that may threaten its continuity. Our paper aims to clarify the determinants of the success of some companies, especially SMEs, by focusing on the links between innovation and the organizational performance of SMEs. So, the purpose of this paper is to explore and better understanding the effects of organizational innovations, process innovations, product innovations, and marketing innovations on the organizational performance of Moroccan SMEs, based on an empirical study covering 3 SMEs operating in three different sectors.

Key words: Innovation, organizational performance, SMEs, open innovation.

**JEL:** O30, O31, O32, Q55.

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#### Introduction

Oday, the business environment is characterized by the globalization of markets, instability and rapid technical developments, increasingly fluctuating and uncertain demand, reduction of the life's products and activities, so the advantages acquired traditionally are no longer assets that companies can count on to develop.

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Companies must look for new options to diversify their offerings and markets, which contributes to their growth development and find relevant answers to the question of survival that may threaten its continuity. Innovation gives them the ability to adapt and evolve over time to respond to rapid changes of the context and changing customer needs and expectations (Kamarudden et al., 2009). That allow them to create an advantage competitive (Cobbenhagen, 2000). Innovation can therefore help companies to achieve their goals and support their competitiveness.

Our article aims to clarify the determinants of the success of some companies, especially SMEs, by focusing on the links between innovation and the organizational performance. Our problem will therefore be around innovations in SMEs and their effects on how the company is organized to achieve the objectives set. It will be formulated as follows: To what extent does innovation impact the organizational performance of SMEs?

To answer this question, we will first present the general concepts of our problematic. We will then return to the theoretical debate, which focuses on the links between innovation and companies' performance. After that, we will try to summarize the links between innovation and organizational performance according to several studies. Finally, we will conclude by analyzing these links within some Moroccan SMEs.

# 1. Theoretical analysis of the relationship between innovation and organizational performance

#### 1.1. General concepts

#### 1.1.1. Innovation

Many researchers have presented the importance of innovation for enterprises. To better understand innovation, it is necessary to provide some definitions of this concept and study its different typologies.

There is a variety of definitions of this notion because of the different research interests and origin fields of researchers, each of whom presents their way of apprehending it.

Schumpeter (1935) considers innovation as a new result in the market that can be either a product or a process. This innovation must be absolutely new compared to existing practices. It can take the form of an idea, a practice (Rogers & Schoemaker, 1971). On the other hand, Daft (1978) insists on specifying in relation to what the result is new in order to be able to describe it. Innovation can therefore be defined as the first introduction of a new

product or process compared to existing practices already on the market (Ménard, 1995), as it may be in relation to an organization (Van de Ven, 1986; 2005), and sometimes in relation to a group of organizations that have the same goals (Becker & Whisler, 1967). Besides, innovation can be defined in relation to its novelty. Some researchers consider innovation as a radical change (Schumpeter, 1935; Knight 1967), others see it as an improvement of the existing (Van de Ven, 1986; Sapprasert, 2008). In addition, some researchers define innovation based on its origins. For example, they studied the link between knowledge management and innovation (Nonaka and Takeuchi, 1994). As a result, several researchers (Boughzala & Ermine, 2006) have proposed knowledge-based managerial practices to be able to innovate. Similarly, Le Moigne (1990) has shown that through the exchange and transfer of information, innovations are created. Several definitions of innovation refer to the process of transforming inputs into outputs (Chanal, 2004: 86). Thus, research on innovation goes beyond the simple analysis of the phenomenon and is more interested in the processes to drive it. Le Masson et al. (2006) state that "innovation is no longer considered as an expost fact finding but as the result of a voluntary process that is actively supported and can be organized. A firm that wants to be innovative must therefore manage "innovation capabilities".

The use of a classification of innovations, according to their level of application and the extent of the changes they bring about the enterprise and the economy in general is necessary to evaluate their roles in performance. We present the typology according to the nature of the innovation and then the typology according to their depth.

Schumpeter (1934) distinguishes between the types of innovation according to the object of the change; product, process, market and organizational innovations. In the same vein, the OECD (2004) distinguishes more precisely four levels of innovation intervention (product innovation, process innovation, organizational innovation, marketing innovation). Each type is distinguished by its own characteristics and its own objectives.

Depending on the degree of change, innovations can be classified either as "radical innovations" or as "incremental innovations" (Van de Ven et al., 1999).

Radical innovations cause significant changes in the organization's practices, activities and products or services (Damanpour, 1996). This author describes radical innovation as a revolution and a transformation of an activity, a product or a service to give rise to something new and different.

On the other hand, incremental innovations involve the introduction of smaller changes by the firm, it means the implementation of small-scale

improvements in existing activities, products or services, or adoption of equipment and components (Ayerbe & Fonrouge, 2004).

#### **1.1.2.** Organizational performance

In recent years, performance measurement has become an important topic in the literature and in practice. Several authors have suggested that companies develop and adopt new performance assessment models that combine both financial and non-financial indicators. This vague and polysemic concept (Bourguignon, 1995) remains at the heart of the concerns of several management researchers.

This concept includes notions that vary according to the context and accept many interpretations (Gilbert & Charpentier, 2004). Indeed, the literature converges in the sense that most definitions refer to the achievement of objectives (Samsonowa, 2012).

The organizational approach of performance is a new approach that goes beyond the financial aspect of measuring performance. The concept of performance has come out of its quantitative and financial framework that is based solely on the valuation of shareholder wealth. Currently, this concept encompasses several factors related to all areas of the enterprise (process, structure, skills, knowledge and flow of information, etc.).

For Morand (2008) organizational performance is about how the organization is organized to achieve its goals and how it achieves them. Kalika (1988) states that this performance based on the efficiency of the organizational structure and not on its social and economic elements. Organizational performance consists in maximizing production by respecting the factors of organizational efficiency, namely: respect of the formal structure, relations between the components of the organization, the quality of the flow of information, the flexibility of the structure (see fig. 1).

In this research, we consider the organizational performance of an SME as "the way the company is organized to achieve its objectives, and how it achieves them" (Kalika, 2003). This performance, based on the effect-tiveness of the organizational structure, consists in maximizing production by respecting the factors of organizational efficiency, namely: the respect of the formal structure, the relations between the components of the organization, the flexibility of the structure and in particular the quality of the flow of information.



Source: Kalika (2003)

Figure 1. Organizational Performance Factors

#### 1.2. Theories about innovation and organizational performance

The enthusiasm for innovation has given rise to a multitude of research, approaches and theories devoted to this phenomenon in several disciplinary fields. Referring to the idea of novelty, innovation is seen under different conceptualizations and distinct views about their impact on companies' performance and survival (Gopalakrishnan & Damanpour, 1997).

Conscious of these different interpretations, we use in this chapter three theories that we consider complementary and interdependent to explain the impact of innovation on organizational performance. These are the resource-based theory, organizational learning theory and the theoretical model of open innovation.

#### 1.2.1. The resource-based theory (RBV)

Innovation is conceived in the theory of resource-based theory as a creative exploitation of the resources of the enterprise, combining and recombining them singularly to obtain new ones (Morales et al., 2007). It is a creation and recreation of knowledge and skills of the company, according to its experience and the architecture of its existing resources, its learning capacity (incorporation of new knowledge in the reservoir of resources), its structure (organization and coordination of resources), and the qualities of the actors (managerial skills to combine resources) that compose it. Innovation therefore depends not only on the resources available to the enterprise, but

also and especially on the way in which it combines and uses them (Penrose, 1959).

Thus, SMEs can combine their productive resources, but it is the way in which they implement them that will enable them to institute new practices, processes that are viable in their environment (Arena & Lazaric, 2003). And in order to adapt to the changing conditions of their environment and remain competitive and efficient, SMEs will need to develop, integrate and reconfigure their knowledge and skills, or other terms of continuous innovation. (Eisenhardt & Martin, 2000). Continuous innovation (or dynamic capabilities) makes it possible to offer companies competitive performances in the long term (Teece & Pisano, 2004), and in particular when it is qualified as rare, difficult to imitate and substitute, and provides a higher value, following its exploitation.

#### **1.2.2.** Organizational learning theory

Innovation is perceived in the organizational learning theory as the exploitation of new knowledge or the combination and recombination of existing knowledge in new or significantly improved practices and activities (Chen, 2006). According to Nonaka (1994), innovation, which is an essential form of organizational knowledge creation, cannot be sufficiently explained by information processing or problem-solving processes. Innovation can be better understood as a process in which the organization creates and defines problems and then develops new knowledge to solve them. In addition, innovation produced by one part of the organization in turn creates a flow of related information and knowledge, which could then trigger changes in organization should be studied based on how it creates information and knowledge rather than how it treats these entities.

Thus, innovation, which is perceived here as a creation of new knowledge results according to Nonaka and Toyama (2002) from the combination and the recombination of tacit and explicit knowledge. It requires not only the acquisition of explicit and implicit knowledge, but also their sharing, dissemination and use within the organization (Senge et al., 1994). For Salaou and Lioukas (2003), this acquisition of knowledge depends on the knowledge already held by the company.

Organizational learning approaches generally distinguish two logics: behavioral (exploitative learning) and cognitive (exploratory learning) (March, 1991).

Operational learning builds on the company's existing capabilities, practices and resources (March, 1991). While exploration learning is inte-

rested in representations that allow the implementation of new and different practices from that previously existing in the organization.

These two types of organizational learning refer directly to two types of innovations: operating innovation and exploration innovation. Operational innovation is defined by Chanal and Mothe (2004) as an innovation strategy that starts with the use of the company's skills to accelerate innovation processes, while the innovation of Exploration is defined as innovation that is based on new skills for the company. In other words, an innovation that makes use of its skills is equated with operating innovation. On the other hand, an exploration innovation is one that requires new skills that are not mastered by the company. Indeed, many authors attest that these two types of innovations must be taken into account by companies to achieve long-term success and ensure their sustainability (March, 1991). For O'Reilly and Tushman (2004), operating innovation allows companies to generate profit, and exploration innovation helps drive performance and growth. The most innovative and successful firms would be those who learn to maintain and strengthen their competitive advantages of the moment through operating innovation, while aggressively preparing those of tomorrow through exploration innovation (Garcia-Morales et al., 2007).

#### **1.2.3.** The theoretical model of open innovation

Several researchers have focused on the relationship between open innovation and companies' performance. It is essential to distinguish between the nature of this relationship that could be direct or indirect. In the case of an indirect relationship, open innovation influences the performance of the firm through intermediate variables.

Spencer's research (2003) showed a positive impact of an informationsharing strategy with competitors on improving companies' performance. This research is based on the issue of information sharing, hence its classification in the category of outgoing innovation (Gassmann & Enkel, 2004). Spencer used a patent synonym for performance measurement, which is the ability to develop and protect the intellectual property of a technology required by large commercial markets (Spencer 2003). But it does not use the total number of patents held by the firm, as it remains an insufficient indicator to measure business performance (Lanjouw, 1993).

In addition, a study is conducted by Belderbos, Carree and Lokshin (2004), focusing on the relationship between research and development collaboration practices and firm performance. Two indicators are used to measure performance: labor productivity, and innovative sales productivity (Belderbos, Carree & Lokshin, 2004). This study distinguishes different forms of cooperation (with competitors, customers, suppliers, research centers). This

distinction allowed the authors to grasp the impact of different forms of cooperation on performance: they showed the positive impact of cooperation with suppliers and competitors and research institutes on performance (work growth and the productivity of innovative sales).

For Aschhoff and Schmidt (2008), performance refers to the economic approach. They are interested in the effect of cooperation on the economic success of the company. They distinguished several forms of collaboration (customers, suppliers, competitors and research institutions). They said that collaboration with competitors reduces costs, with research institutes allows the development of new products, while with customers and suppliers does not affect the economic performance of companies. (Aschhoff & Schmidt, 2008, 57).

Moreover, Barajas, Huergo and Moreno (2010) conducted a research that is close to the one of Spencer (2003). It attests an indirect relationship between open innovation, represented by cooperation in R&D, and the economic performance of firms measured by labor productivity (Barajas, Huergo & Moreno, 2010). They found an effect of open innovation on improving the technological capabilities of firms, which in turn affect economic performance.

#### 2. Empirical study: Case of Moroccan SMEs

#### 2.1. Research Methodology

In this section, we will present the links between innovation and organizational performance in three Moroccan SMEs. We chose these companies because they have the size (SME) and the innovative criteria. For reasons of confidentiality, we will present these SMEs as companies A, B and C.

Firm A operates in the agri-food sector, while B operates in the agrosupply sector, and SME C operates in the industrial sector.

Based on interviews with company managers (General Managers, Technical and Industrial Director) and documentary research, we were able to identify the links between innovation and organizational performance. To do this, we have built semi-structured interview guides based on the following themes:

- Presentation of the manager, the company and the strategy of the SME;
- Innovations achieved and collaboration in R&D;
- Organizational performance;
- Links between innovation and organizational performance of SMEs.

We conducted 3 interviews in the 3 SMEs. They lasted on average 1 hour. The various interviews were recorded and transcribed.

#### 2.2. Results

Through horizontal and vertical thematic analysis and corporate documents, we have achieved the following results:

#### 2.2.1. Innovations realized

Innovation is defined as an important and indispensable practice for the survival of the company. Thus, it is any novelty that affects products, processes, work methods or marketing practices. This definition is similar to that of Deltour (2000) who defined innovation as the use of a technology, a product or service for the first time, by the organization, and that other organizations used it before or not. An analysis of the various innovations made by the SMEs in our sample revealed that product innovation is the most achieved compared to other types. This is justified by its low complexity and its objective of improving the services offered to customers and better meet new needs. Generally, innovations have been made in each entity to meet the demands of the market and competitiveness.

We found a real integration between all the entities on the one hand and the employees of the studied SMEs on the other hand. Therefore, interrelationships are seen between the types of innovation. This conclusion underscores the value of the resource-based theory as a framework for understanding the definition, process and deployment of innovation. This theory sees innovation as a combination of resources creatively to obtain new ones. It is a creation and recreation of knowledge and skills of the company. The innovations realized by the SMEs studied appear as results of a system constituted by the actors. We also find that these innovations are a set of collective and organized actions, which are constituted by the interaction of their knowledge. As Le Moigne has shown (1990), the exchange and transfer of information and knowledge between the actors of the enterprise allow organizational learning and consequently the creation of innovations. This is justified by the definition given to innovation by the theory of organizational learning as the exploitation of new knowledge or the combination and recombination of existing knowledge in new practices and activities (Chen, 2006). We found in our results that SMEs we studied innovate despite the lack of patents among them. This shows that patents are not a sufficient indicator for the measurement of innovation as pointed out by Kleinkcecht et al. (2002).

#### 2.2.2. Collaboration in R&D and open innovation

Our research highlights the importance given to R&D collaboration by the SMEs studied. For innovation activities, companies build services and R&D departments, with a large budget. However, the limited resources and skills can be a constraint for R&D and subsequent innovation. Hence the need to resort to external resources and skills, by forming partnerships and collaborations with other companies, research centers, universities, organizations, etc. We found, for example, that the company "B" has partnerships with the agronomic institute, and in the company "A" a partnership with the university Cadi Ayyad. This is where the interest of the open innovation model is articulated in understanding the links between these two variables. The open innovation model is based on harnessing external sources of innovation (information, knowledge and skills) by making better use of the outputs of its own R&D (Chesbrough, 2003).

#### 2.2.3. Organizational performance

Admittedly, the concept of organizational performance does not have an absolute definition. This concept involves different judgments and interpretations (Bourguignn et al., 2005). It varies according to the context and accepts many interpretations (Gilbert and Carpentier, 2014). This is what we found in the results of our work. Each SME studied defines the organizational performance in its own way. The common point between these definitions is that of achieving the results set. Similarly, Dwight (1999) defined organizational performance as the level of achievement of an objective. The performance factors defined by Kalika (1988) namely: formal structure, the relationship between the components of the organization, the quality of the flow of information and the flexibility of the structure, are respected by SMEs studied. Respecting these factors has a positive impact on how companies are organized to achieve the set objectives and their performance. The SMEs studied use different indicators to assess organizational performance - whether financial, commercial, organizational or strategic. Sales and customer satisfaction indicators are used by all companies surveyed. Indeed, the significant indicator according to Weltstein (2002) is the degree of customer satisfaction. Thus, the SMEs studied are aware of the importance of using criteria that relate to all stakeholders and intangible assets (skills, knowledge, innovation capacity, work climate, etc.) (Segars and Kettinger, 1994).

#### 2.2.4. Benefits of innovations

The findings of our work reveal a significant contribution of innovations to improve the organizational performance of SMEs in several dimensions. In all the SMEs studied, innovation plays an important role in creating performance differences with competitors. This has been demonstrated by the Metcalfe study (1998).

Indeed, the innovations made by the SMEs studied have improved their performance in several aspects. In particular, the financial aspect (the sales, profit margins and profitability), the commercial aspect (increase of the market share and the satisfaction of the customers), quality aspect (the improvement of the quality) and the organizational aspect (productivity, social climate, internal cohesion, quality of the flow of information, flexibility of the structure, etc.), which has been demonstrated by several researches. In addition, our work shows that it is difficult to appreciate the share that each innovation has in organizational performance. In all the SMEs studied, our results show that innovations were complementary and interdependent in the realization of the final result. This finding is already shown by several studies (Lynch, 2007; Wade, 1993; Barrette & Carrière, 2003). The results of our work confirm the precision of resource-based theory that focuses on the ability of companies to organize their resources and competences in a way that allows them to generate competitive advantage and improve their performance (Barney & Wright, 1998).

#### Conclusion

The conclusions obtained reflect the interest that the SMEs studied focus on innovation, highlighting these effects on organizational performance.

We can summarize the results obtained from our content analysis as follows:

Our research revealed that all the SMEs studied have achieved product, organizational and marketing innovations. We have found that the innovations achieved in these different areas are aimed at meeting the requirements of competitiveness. It is important to conclude that each company has given priority to one type over another. For example, in enterprise "A", priority was given to product innovation, and to commercial innovation for "C" and "B".

On the other hand, the SMEs studied focus on R&D activities and collaborations and partnerships in this area. It shows that SMEs are aware of their internal insufficiencies of means and skills, and increasingly accept

collaborative activities with other external entities namely: consulting firms, research centers, institutes, the universities.

Thus, our research has established that all SMEs have a common point on the definition of organizational performance which is the achievement of the objectives set in advance. It is linked to the performance of individuals and good work practices, and measured by the customer satisfaction indicator as well as the efficiency of individuals and machines for "A". Thus, "C" divides this performance into organizational, commercial and financial performance. And to evaluate it, it uses the sales and the rate of arrest. In company "B", organizational performance is based on two criteria, namely profitability and staff stability, and is measured by the board of directors.

In addition, our research also revealed a significant contribution of innovations to improving the organizational performance of SMEs in several dimensions. In all the SMEs studied, notable increases were recorded in sales, margins, market share, customer satisfaction, social climate and internal cohesion, the quality of information flow, the flexibility of the structure. These increases contribute to improving competitive advantage and performance. In addition, our study reflects the difficulty of appreciating the share of each innovation in organizational performance. In all the SMEs studied, our results show that the innovations were complementary and interdependent in the realization of the final result.

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