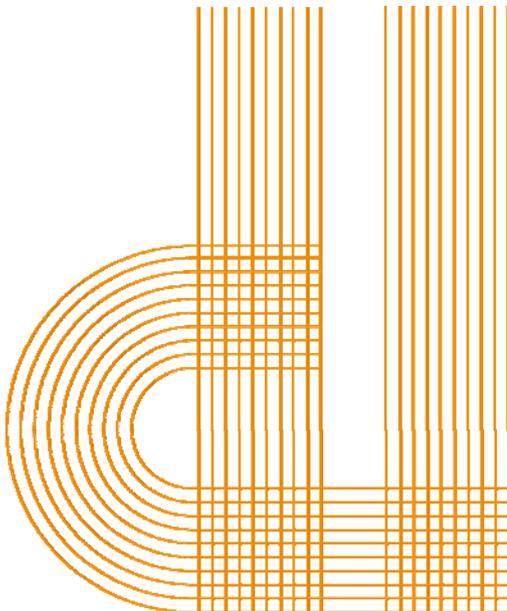


*Deployment of Core Competencies  
to obtain success in SMEs*

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# Deployment of Core Competencies to obtain success in SMEs

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## Summary

*Sources of competitive advantage are firm characteristics that allow setting up in a better position than its competitors. From the Resources Based Theory is usual to consider these sources as internal and external factors of business. Entrepreneur organizes core competences combining these factors. They are competitive advantages when firm gets better performance than the competition. The process to obtain better performance from core competences isn't well known. In this paper we define fifth core competencies: human and technological resources management, zone resources management, customer management, product marketing and innovativeness. We determine which is the process of influence of core competencies on business performance by PLS techniques. Findings indicate a causal process in generating business performance. Only innovativeness affect to performance. But better innovativeness is achieved combining from human and technological resources. This is improved by zone resources management. In turn, this I determined by management customers, associated with product management.*

**Keywords:** *Sources of Competitive Advantage, Resources based Theory; firm performance, SMEs, Core competencies.*

**JEL Classifications:** L21, L25, M21

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## ***Introduction***

The explanatory factors of competitive advantage have been addressed from many perspectives (Krugman, 1994). Initially, accepting the homogeneity among firms, the success was based on external factors such as country or sector. Other researchers pointed to the internal factors as the main explanation of the business excellence towards the achievement of competitive advantage (Gautam et al., 2004). This approach is included in the Resources Based Theory (RBT) (Penrose, 1959). Its central thesis is that competitive advantages are consequence of underlying resources and capabilities of each company and they explain its competitive success (Amit & Schoemaker, 1993; Grant, 1991).

Therefore there is a link between internal and external sources with competitive advantages. The internal sources are resources and capabilities and they are based on the RBT. Between external sources Grant (2005) proposed key success factors of the activity, but in SMEs they are different elements. Consequently, we introduce territory between external factors because it has a great importance for SMEs (Vázquez Barquero, 1999). A combination of internal and external sources is called core competence (Prahalad & Hamel, 1991). It is possible that core competences don't impact on performance, but when this happens, we called their competitive advantages.

The process through core competences obtain success has not been extensively studied. Most authors analyze if one or more competencies can be considered competitive advantages (Narver & Slater, 1990; Pelham, 1997; Verhees & Meulenbergh, 2004; Bani-Hani & Faleh, 2009), but not as is the process by which these competencies have an impact on the success of the company. This process allows determining logic of entrepreneurs to organize their resources to obtain performance. Therefore, we are interested in analyzing the causal process by which entrepreneurs use their core competencies to better performance. We use a strategic scheme of value generation based in strategic design, resources organization, action competence, and performance.

We divide this article into three sections. First, we define basic model indicating core competences and introduce the working hypothesis. Then, we analyze methodology. In section forth we test the hypothesis for regional firms. Finally, we end with a conclusions section.

## ***Theoretical Background and Model***

A competitive advantage is the aspect of the company hardly imitable, maintained in the future, that positions it above of its competitors and leads to better business performance (Carmeli, 2004). There

are three elements associated with this concept: a business feature maintained on the time and hardly imitable, a comparison with competitors and practical utility of such a characteristic that leads the firm to obtain better performance (O'Donnell et al., 2002).

The first step to building a competitive advantage is to identify possible sources to enable it to be in better position over its competitors (O'Donnell et al., 2002). These sources are resources and capabilities of firm and external factors.

We define two types of resources: tangible and intangible. Tangible resources include the financial resources and physical assets identified and valued in the financial statements of the company. Intangible assets are invisible in their states. They include intellectual capital of firm (Bontis et al., 2000). Resources alone are not productive. To perform a task requires a resource team that must work together. Hence is the idea of organizational capacity. This is defined as the ability of a company to deploy resources for a desired final result (Helfat & Lieberman, 2002). The company's organizational capacities can be classified according to the value chain because they are designed to create value for end users (Grant, 2005).

External factors include key success factors of activity and territory. Key success factors of an activity are associated with the product or service, suppliers and market because they are the most directly related to firm' strategy. SMEs have specific characteristics in comparison to large enterprises. SMEs have a lower ability to generate products and compete in cost, but they have more proximity to customers, and consequently they are more specific and better adapted to market needs (Pelham, 1997). SMEs generally are closely associated with the territory. The fact of having small size is a greater dependence on local environment in which it operates. The territory is possibly relevant to competitive advantages since it allows increasing firms relations between suppliers and customers due to its proximity.

External factors, resources and capabilities separately do not confer a competitive advantage because they have to work together to build competences, that are the essence of superior performance. There is a relationship between resources, capabilities, external factors and core competences that is given by the strategy. Prahalad & Hamel (1991) coined the term core competencies to distinguish those fundamental skills for business strategy.

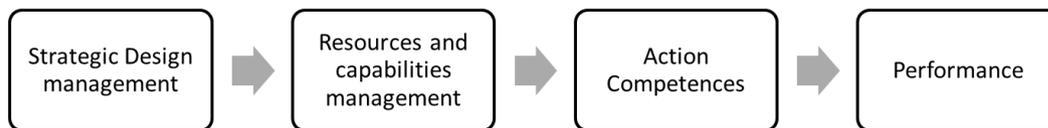
Core competences can generate best performance but the process of deployment isn't sufficiently known. Most of the authors analyze the direct effects of some or all defined competencies core on the performance of the company (Darroch, 2005; Covin et al., 1990). However, some authors suggest that this impact can occur indirectly through other competences (Bontis et al., 2000). Particularly in this work

deals with a sequential model of interrelations between core competencies and business performance by adding different aspects proposed by other authors (Barney, 1996; Grant, 1997; Verhees & Meulenber, 2004; Jardon & Martos, 2010).

### ***Model and hypotheses***

We suppose the entrepreneur organizes firms' core competences to create value to the final client. He/she follows a process of deployment based in value chain strategic (See Figure 1). First he/she designs management of strategic objectives, i.e., product and customers. Afterwards, entrepreneur organizes firms' external and internal resources and capabilities. Next, he/she use action competences; and finally he/she gets performance.

**Figure 1: value chain Strategic**



We defined five core competencies that had been suggested by methodology exposed in F-Jardon & Martos (2011) and we established the process of influence of these competencies on the performance. Two competences related with strategic design management; two with resources and capabilities management and one action competence.

The first competence concerns basic aspects related to product and marketing policies of the company. It is very important because it belongs to firm strategy and improves their sales. SMEs have presented differences with large enterprises because they tend to have more difficulty to establish promotion policies, lower campaigns to strengthen their brand image, less access to channels of distribution and their pricing policies tend to be more restrictive (Spillan & Ziemnowicz, 2003). However, the production features of the SMEs, usually more traditional than large enterprise, can develop more customized products and more easily interact with the client. Companies define product strategy and seek the necessary core competencies to carry out.

Second core competence is associated with customers. Customer management understands the company's ability to create value for customers through their products or services (Narver & Slater, 1990). This definition implies that organizations must understand and meet the needs of our customers to get better performance than competitors (Pelham, 2000). Market knowledge and customers management

is an important means of improving economic efficiency, customer loyalty and competitive differentiation (Narver & Slater, 1990). SMEs have difficulties in developing this competence because it does not have the scale advantages of large firms that have much commercial resources geared to achieving this reputation, trademarks and distribution networks. However, these difficulties can be offset by the segmentation of markets, greater accessibility to distribution channels and its proximity to the customer. This proximity allows to SMEs a fast, direct and close response to customer demand (Pelham, 1997; Pelham, 2000). Moreover, this agility is also favored by low levels of bureaucracy (Pelham, 2000). Several empirical studies show that successful SMEs differ from their competitors by a clear market and custom orientation (Pelham, 1997; Pelham, 2000; Baldacchino, 2002).

Product marketing is linked to customer management as both have a high regard to drawing up the strategic actions of the company (Narver & Slater, 1990) to satisfy their customers better than competitors (Pelham, 1997). Both competences condition core competences associated with resources of firm and particularly zone resources management.

Zone resources management is referred to tangible assets and processes associated with the zone or directly related to them; the areas where the company conducts its business, as well as processes related to the suppliers and the processes associated with selling. Suppliers are treated as a competitiveness factor (Porter, 1985) and in some cases as a firm's competitive advantage (Wagner, 2006). Cooperation, closely related in an SME with its customers and suppliers is also included on this factor (Fukugawa, 2006). Great number of tangible and financial resources is associated with this core competence. In the case of SMEs, the financial resources are generally available at the nearby territory. Ability of risk assessment is attached to them. The territory has not been studied as a field of core competence, except included in enterprise cluster theory (Porter, 1990; Vázquez Barquero, 1999).

The management of products suggests the way in which the entrepreneur manages the available territorial resources, specially the needs of supply and tangible resources to obtain the product and adopt it to the market. This suggests first hypotheses to test:

*H1: The establishment of product marketing determines better zone resources management.*

Management of customers can condition the way in which the entrepreneur manages the available territorial resources, since they determine the financial resources, cooperation, the use of natural resources, etc., according to customers' needs. Consequently, the management of tangible resources and

territory of the company is conditioned by d customer management. This suggests second hypotheses to test:

*H2: Better customer management determines the management of zone resources of the company.*

Management of the human and technological resources is referred to human and structural capital. Human capital includes values and attitudes of workers and managers of the company, their training and capabilities. The ability of employees to harmonize their efforts and integrate their separate skills depends not only on their interpersonal skills, but also the organizational context (Lynskey, 2004). This context affects the internal collaboration. It is determined by corporate culture and others elements of structural capital. Corporate culture refers to an organization's values, traditions and social norms. In general, the organizational culture is seen as an enterprise resource of great strategic importance which is potentially very valuable (Barney, 1996). Other important element of structural capital is referred to technological resources. Technological resources include the stock of technology, existence of technology policy instruments in the firm (Oerlemans et al., 1998), and scientific and technical development (Renuka & Venkateshwara, 2006). Other aspects include the body of knowledge, forms, methods, tools and procedures for combining the different resources and capacities in the productive and organizational processes to ensure that are efficient.

Human and technological resources management has specific characteristics of SMEs in relation to large enterprises (Renuka & Venkateshwara, 2006). Some authors consider that small size allows attaining a good working environment, there is less organizational complexity, greater levels of flexibility, motivating employees and identifying with the objectives of the company. Others believe that small size is worse because the leadership is more personalized, decisions are more centralized, there is more discretion in the promotion and compensation of employees, worsening the climate and opportunities for professional development of workers (Hornsby & Kuratko, 2003) and is less able to retain the best professionals (Klass et al., 2002). It has traditionally been viewed as an advantage linked to large enterprises, although some authors have also linked this variable to the competitive success of SMEs (Donovan, 1996). The acquisition or development of technology in SMEs requires a particularly important economic effort which requires managers to make proper management of their technological resources. Those responsible should carefully consider what improvements can be entered either in products or services and processes and should pay special attention to the maintenance of existing technology to an optimal production level (Donovan, 1996).

Resources constraints existing in small businesses often make it impossible to set up some internal operations. The need for funding is fundamental to SME for both the technological and human resources, so that the authors put it together with these elements. Thus, it is necessary financial resources. Moreover, cooperation also appears associated with these aspects as optimization strategy to achieve them (Klofsten & Scheele, 2003; Fukugawa, 2006). In general the collection of internal resources is derived from the relations with clients and suppliers and, particularly, the establishment of cooperation agreements between different companies as a strategy to tackle high-cost technology projects (Klofsten & Scheele, 2003) and training projects. This cooperation is achieved primarily through partnerships between enterprises at local level, i.e. by so-called business clusters. All items included in the territorial resources management. For this reason we set the following hypothesis:

*H3: Zone resources management determines better management of human and technological resources in regional SMEs*

Innovativeness of the company also is a core competence. This is supported by the necessary technologies and innovation to penetrate new markets. Innovation is considered the change in products and processes, improving them, new marketing approaches and new forms of distribution (North et al., 2001). These new ideas can improve the way in which so far are doing things, or radically change. Innovation can result from the investigation of the company or acquiring new technologies or licenses. In practice innovation in SMEs is a very basic and incremental rather than radical in nature (Donovan, 1996). Although the large firms have more financial and human resources may seem more likely to engage in innovation, SMEs also innovate. Many statistics show how SMEs are the main promoters of growth in the levels of innovation (Lloyd-Reason et al., 2002).

SMEs are less bureaucratic complexity, increase communication between all levels of the company and are closer to the market making it easy for innovation (Lloyd-Reason et al., 2002). Small businesses become less innovative over time as they become less aware of environmental changes or innovative solutions. They have a difficult time adapting to changes in the economic, technological, or competitive markets (Drozdow and Carroll, 1997). Small business managers often have absence of the types of education and training that have been linked with innovativeness (Romano, 1990). This lack of strategic expertise prevents small firms from transforming their superior customer knowledge into new products and services (Sethi et al., 2001). Qualified scientists and engineers, and strong leadership provided by a highly educated director or founder have shown to have high incidence on innovative

activity (Le Blanc et al., 1997; Hoffman et al., 1998). However, some studies do not found that effect (Keizer et al., 2002). Consequently an adequate human resources management of the firm is essential to innovativeness. Innovation in SMEs is based largely on the team available to the company (Pfeffer, 2005). The manager of SMEs should encourage the generation and development of new ideas. In fact, a focus on innovation positively influences the level of innovation of the company (Chandler et al., 2000; Verhees & Meulenber, 2004). Technological resources are related to human resources to foster innovation. Proper management of technology resources improves performance of machinery, production processes, systems and even performance of human resources. It also increases the probability of obtain new products or penetrate in new markets. Organizations that incorporate or develop technology assets and more trained human resources will have more innovation than their competition. Therefore, we state the following hypothesis (see figure 2):

*H4: The management of human and technological resources improves innovativeness of SMEs.*

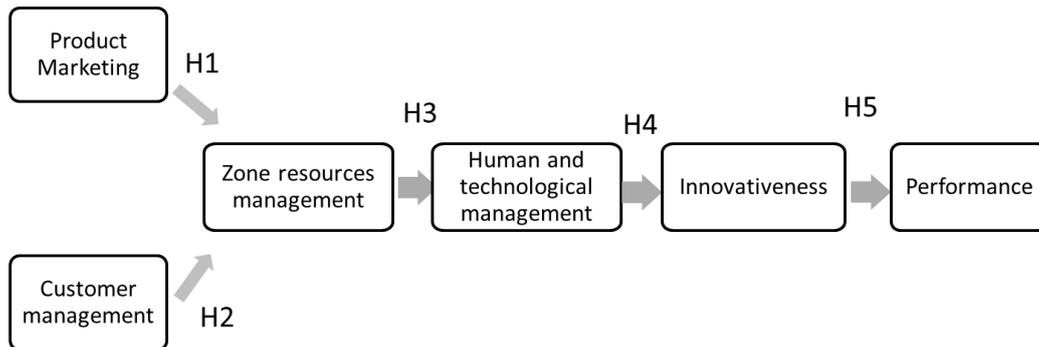
The innovation strategy allows companies to enter into more profitable businesses, as consumers pay more for differentiated and specialized products that are offered, reduce costs and facilitates adaptation to needs of customers. Thus improves company's performance (Donovan, 1996). By this reason, companies should think of innovation as a competitive strategy to take advantage of market opportunities, and thereby increase economic value. Improving the management capacity of innovation helps to identify market opportunities. Develop new products, services and processes and modifying existing contributes to increase the value of the companies by tangible and intangible assets that are created in this process, and thus enhances their competitiveness.

These strategies are different in SMEs and large firms (Rangone, 1999). The competitive advantage of innovation lies in the lower organizational complexity and low levels of bureaucracy, more fluid and direct communication between different departments and between management and staff and, above all, in closer contact with the market , allowing them to have a highly responsive to changes in the environment (Lloyd-Reason et al., 2002). Some studies show the positive relationship between innovation and success of SMEs (Lloyd-Reason et al., 2002; Camisón et al., 2004). Based on the above arguments, we propose that the success of SMEs is positively associated to the development of new products, services or processes that a company can limit its ability to compete if their products do not fully meet the needs of its customers, either by poor design, poor quality or poor customer service. This allows stating last hypothesis

*H5: Innovativeness of SMEs improves firm performance.*

The set of hypotheses, along with the model analysis are shown in Figure 2. It explains what the process of generating core competencies, by combining elements of internal and external aspects of the company through the strategy. These core competencies will be a competitive advantage when you really have an impact on business success.

**Figure 2: Working hypothesis**



Source: Authors

Model shows a causal process where entrepreneur defines its products policy and customers management. The authors propose different alternatives in the relationship between products and markets. Both are essential to define the strategy of the company. Both affect the use of resources and capabilities of the enterprise, but in an orderly fashion. The entrepreneur sets up first external factors (Vázquez Barquero, 1999) and from that organizes the resources and internal capabilities of the company (Spillan & Parnell, 2006). Finally, these improve the innovativeness that reflects all the competences of action (Donovan, 1996; Klofsten & Scheele, 2003). The innovation obtained by innovativeness finally leads to better firm performance (Lloyd-Reason et al., 2002; Camisón et al., 2004).

### **Methodology**

The objective of the proposed hypothesis was testing competitive advantage and how is the causal process of obtaining performance from them. Therefore, based on core competencies created by combining resources and capabilities of the company, we are interested in seeing which of these resources promote the company's competitive success. In accordance with this objective we used the PLS technique to assess the full model.

The whole process involves multiple issues. First we determined the study population and the sample on which it tested the hypotheses. It should discuss the measures of the variables used and defined constructs. Finally we detailed the statistical methodology used to test

### **Population and Sample**

Vigo and its metropolitan area are in the northwest of Spain and more specifically in the southwest of Galicia. Companies in this region have their own characteristics. It is a region with a long entrepreneurial tradition that has thrived in the early twentieth century with the rise of the canning and was enhanced in the mid-1960s with the establishment of a multinational car in the area. These developments have meant that the activities associated with sea fisheries as well as food or shipyards and transport equipment have become increasingly important in the area. This has undergone several industrial restructuring that has tested their resilience and shown great entrepreneurial spirit exists. For these reasons it appears as a good place to compare some of the theories developed on competitive advantages.

Normally, the economic structure of an area shows some of their characteristics. Consequently it is desirable to design the sample taking into account this structure. There are different alternatives. In this paper, we followed an approach of corporate clusters, i.e., so analyzing all activities associated with the same value chain of a product or service and such other activities that support or are necessary for the completion of all previous activities. We classified firms according to SIC Code in 11 clusters considering the specific situation of this study. (González et al., 2006).

To obtain empirical data conducted a random stratified survey in the area in 2005. Given the high strategic content of the survey and to not significantly affect the representativeness of the results considered in terms of production, companies were very small that were removed. As a result, were not considered as part of the target self-employed and micro-enterprises, i.e. enterprises with fewer than 10 employees. Similarly companies with more than 250 workers are not included. Thus, SMEs only were in the sample.

A sample of 400 companies was selected with a confidence level of 95.5% would give us a maximum error in the case of a dichotomous question 5% on the whole. We randomly selected 20 companies in each cluster and the rest of the sample was randomly selected proportionally divided according to the combined structure of size and number of firms. The response rate was 59%, so finally obtained 236 valid responses with which they conducted the study. It was found that the final structure of the sample was consistent with the study population by Homogeneity test (Newbold et al., 2002).

## **Measures and Liability**

In practice, it is difficult to separate the source, the position relative to competitors and the performance does really have that advantage, since the entrepreneur has not clear the distinction. Neither the researchers have reached an agreement on the distinction, especially when the competitive advantage to differentiate itself and its outcome is measured by business success (Klein, 2001). To distinguish the two concepts we will build on the assessment that entrepreneurs have of both, what is a competitive advantage and what is a better performance for your business.

We used a set of items to define variables and constructs involved in the model. Organizational capabilities continued Grant scheme following a functional classification taking into account the elements of the value chain (Porter, 1985).

We selected items of each core competence according with methodology exposed in F-Jardon & Martos (2011). The resources and capabilities associated with the marketing of products are essential for defining the company strategy, since it must take into account factors related to the product or service that the company makes. Customer management includes relationships with customers (Barney, 1996), Human and technological resources management is encompassing all the instruments and internal necessary processes to implement the strategy of the company. Zone resources management includes aspects of SMEs closest to the area where your activity. We have selected the different links in the chain of value creation (Porter, 1985) among the aspects associated with the territory as a condition of the impact on business performance. Therefore, we consider as items: the areas of purchasing, production and sales. To evaluate the company's innovativeness is taken into account capacities, technology and processes of innovation. The items finally selected were listed in Table 1.

The form of the questionnaire followed the pattern of different works (Gonzalez et al., 2006) based on scales in the literature (Malhotra, 1981; Narver & Slater, 1990; Deshpande & Golhar, 1994). Therefore, in each of the items related to sources of competitive advantage were asked to rate if their appearance that indicated it was important as a competitive advantage for your company, in a scale ranging from 1 (not important as competitive advantage) until the value 5 (is very important as a competitive advantage). This type of assessment allows discriminating between each asset.

The firm performance is associated with competitive success. We used a series of elements related to business performance (see Table 2). This was composed of different indicators depending on the strategy chosen by the company.

**Table 1: Competitive advantages items**

Competence	Source	Reference
Innovativeness (Inno)	The capacity for innovation in processes, products or markets	(Verhees & Meulenberg, 2004)
	Process and products technologies	(Helfat , 1994; Kim & Kogut, 1996)
	Research, development and innovation process	(Teach, 1990)
	Design process	(Helfat, 1994)
	Ability to penetrate new international markets	(Cal et al., 2007; Camisón & Villar-López, 2010)
Zone resources management (External)	The attitude of cooperation and partnerships by the company	(Klofsten & Scheele, 2003; Cal et al., 2007)
	The ability to evaluate investment risks	(Balakrishnan & Fox, 1993)
	The financial / economic and financial structure	(Balakrishnan & Fox, 1993)
	Natural resources	(Porter, 1990; Vázquez Barquero, 1999)
	Suppliers type	(Park & Krishnan, 2001; Fukugawa, 2006; Wagner, 2006)
	Supply process	(Porter, 1985)
	Production system	(Porter, 1985;Zahra & Das, 1993)
	Marketing and sales process	(Porter, 1985)
	The geographic areas in which purchase	( Porter, 1990; Vázquez Barquero, 1999)
	The geographic areas in which operates	(Porter, 1990; Vázquez Barquero, 1999)
The geographic areas for which he sells	(Porter, 1990; Vázquez Barquero, 1999)	
Human and technological resources management (Internal)	Management system	(Grant, 2005)
	The training of managers and workers	(Pfeffer, 2005)
	The professionalism and attitude of managers and workers	(Hornsby & Kuratko, 2003)
	Company Culture	( Barney, 1996) (Ritchie & Brindley, 2005)
	Human resources	(Hatch & Dyer, 2004)
	Technological resources of facilities and equipment	(Kim & Kogut, 1996)
	Quality of products / services	(McLaran & McGowan, 1999)
	Information system	(Mata et al., 1995)
	Internal communication	(Barney, 1996)
Product and marketing policies	The promotion of products / services	(Kotler, 1999)
	The price we have the products / services	(Carson et al., 1998)
	The breadth of the portfolio of products / services	(Zahra & Das, 1993)
	The exclusivity of the products / services	(Kotler, 1999)
Customer management	Market knowledge	(Carson & Gilmore, 2000)
	Customer Type	(Hayes & Pisano, 1994)
	Customer service	(Carson & Gilmore, 2000)
	The loyalty system	(Hayes & Pisano, 1994)
	The response time to customer needs	(Pelham, 2000)
	The direct relationship with end customers	(Carson & Gilmore, 2000)
	After-sales service	(Pelham, 2000; Spillan & Ziemnowicz, 2003)
	The distribution network	(Porter, 1985; (Spillan & Ziemnowicz, 2003)

Those indicators can be evaluated using quantitative or qualitative data. Quantitative data seem more objective, since they are listed numerically and are also considered by all observers. However these data are based on a particular accounting information system for legal and tax considerations that may distort the reality of the business explicit. Therefore, in various research papers have opted for subjective

data (González et al., 2006; Covin et al.,1990). By this criterion, to assess its performance questioned whether the various items considered had decreased or increased in recent years on a scale of 1-5.

**Table 2: Performance items**

<b>Items</b>	<b>References</b>
The turnover	(Bontis et al., 2000)
The cash flow	(Sveiby, 1998)..
Net profit	(Darroch, 2005)
Profitability	(Darroch, 2005; Chen et al., 2005)
Solvency	(Katchova, 2010)
Equity	(Chen et al., 2005)
The professionalism of the employees	(Rangone, 1999)
Productivity	(Valmohammadi and Servati, 2011)
Supply costs, labour, and general	(Valmohammadi and Servati, 2011)
The modernization of the facilities	(Ordóñez de Pablos, 2004)
The capacity for innovation and its transfer to the environment	(Bontis et al., 2000 ; Ordóñez de Pablos, 2004)
The market value of the company	(Darroch, 2005)
The company's competitive position in the market	(Darroch, 2005)

### **Statistical Techniques**

The model is based on linear relationships between structural variables. There are different techniques to focus this problem. The most popular are based on covariance analysis (Hair et al., 2006) or direct estimation of structural relationships by least squares techniques (Chin, 1998). Solutions based on the covariance parameters is conjectured to minimize the correlation fit between the sample and those obtained assuming the theoretical model, In this way we obtain a maximum likelihood estimator assuming normal in all the variables involved. The estimates obtained are asymptotically unbiased, consistent and efficient. All indicators should be reflective treated where they are causally affected by the underlying variable. These models require assumptions underlying a very demanding, especially the normal behavior of the variables used in the model. The fact of working with data measured on an interval scale, being based on surveys as the Likert scale, it is difficult to verify the assumption of normality of the variables. For that reason we are interested in alternatives more flexible and less constrained by these assumptions. That's what happens with the PLS technique. PLS-based solutions attempt to minimize the variance of all dependent variables. Least-squares procedure is partial in the sense that each step minimizes the residual variance with respect to a subset of estimated parameters

given the remaining variables approach and set the other parameters. This approach avoids problems such as identification of parameters in the model covariance.

This technique use as criteria to validate the average variance extracted (AVE), Composite reliability and Cronbach alpha. AVE attempts to measure the amount of variance that a latent variable component of the capture of its indicator about the amount due to measurement error. When all measures are standardized, this amount corresponds to the average communality in the block. It must be greater than the squared correlations. It is recommended that this amount is greater than 50% for most indicators that explain the error, but if they are around 0.3 are acceptable if they are also justified. Cronbach's alpha (Cronbach, 1951) is based on the analysis of average correlations among the items referred to a single aspect, from a single administration of the questionnaire. This ratio produces values ranging from zero (0) and one (1). The closer the value one (1) is the most reliable instrument. The criteria used for the interpretation of Cronbach's alpha coefficient values are less than 0.6 (low), between 0.61 and 0.70 (right), between 0.71 to 0, 80 (good), over 0.80 (high) (Nunnally, 1978). Composite reliability has a similar interpretation.

By not requiring the normality of the variables that define the constructs at the time of making the estimate, the distribution law of the estimates obtained is not known. Therefore, a bootstrapping technique is used to test whether the parameters are significant. This is to create N samples similar to that obtained with the same empirical distribution. From each of them will get a different PLS estimator. Assuming that the average of all of them an approximately normal distribution contrasts reliability and value (Efron, 1979).

We used the Statistical Package for the Social Sciences (SPSS version 15) and Visual Partial Least Squares (VPLS 1.4) for data analysis process, determining factors and impact assessment.

### ***Empirical Analysis***

We elaborated constructs by PLS techniques. Table 3 listed loadings of constructs and t-statistic calculated by bootstrapping. Results shown items were significance between each construct.

The global model was estimated by PLS technique (Chin, 1998). The analysis of the results has two parts: the study of the representativeness of the constructs and analysis of the relationships between them.

**Table 3: Loadings of constructs**

<b>Construct</b>	<b>variables</b>	<b>Loading</b>	<b>BS T Statistics</b>
Customer Marketing (CM)	Market knowledge	0.6295	6.5475
	Customer Type	0.7453	8.9575
	Customer service	0.6940	5.5967
	The loyalty system	0.7446	8.0878
	The response time to customer needs	0.7498	6.8453
	The direct relationship with end customers	0.6306	6.8453
	After-sales service	0.6105	8.6660
	The distribution network	0.7031	6.3059
Human and technological resources management (HTRM)	Management system (strategy process, operational management system)	0.7534	9.0374
	The training of managers and workers	0.6326	5.3951
	The professionalism and attitude of managers and workers	0.7386	6.1839
	Company Culture	0.6600	8.4163
	Human resources	0.6921	5.0531
	Technological resources of facilities and equipment	0.7105	6.7351
	Quality of products / services	0.7490	3.8520
	Information system	0.6917	8.0968
Innovativeness (INNO)	Internal communication	0.6483	5.6783
	The capacity for innovation in processes, products or markets	0.5512	3.7604
	Process technologies and products used	0.6393	8.9306
	The process of research / development / innovation	0.6467	7.8325
	The design process	0.6358	17.0909
Product management (PM)	Ability to penetrate new international markets	0.6605	15.1398
	The promotion of products / services	0.6634	11.8324
	The price we have the products / services	0.6674	7.1365
	The breadth of the portfolio of products / services	0.7519	5.4182
Zone resources management (ZRM)	The exclusivity of the products / services	0.7227	11.4149
	The attitude of cooperation and partnerships by the company	0.6197	13.7792
	The ability to evaluate investment risks	0.6650	10.4363
	The financial / economic and financial structure	0.6382	9.8264
	Natural resources	0.8029	9.3034
	Suppliers type	0.8229	11.9352
	Supply process	0.7959	8.3797
	Production system	0.7437	6.1707
	Marketing and sales process	0.6326	4.8370
	The system of quality / environmental management / risk prevention	0.6483	6.3304
Performance (PERF)	The geographic areas in which purchase	0.8090	7.7728
	The geographic areas in which operate	0.8003	6.8800
	The geographic areas for which he sells	0.6024	5.3828
	The turnover	0.7208	4.4127
	The cashflow	0.6605	4.0969
	Net profit	0.7227	4.2052
	Profitability	0.6889	3.6768
	Solvency	0.7502	4.1214
	Equity	0.7976	4.7281
	The professionalism of the employees	0.6795	4.0026
	Productivity	0.7129	4.6127
	Supply costs, labor, and general	0.4645	2.1028
	The modernization of the facilities	0.7205	4.6184
The capacity for innovation and its transfer to the environment	0.6884	4.0998	
The market value of the company	0.7840	5.5826	
The company's competitive position in the market	0.8129	6.4015	

The representativeness of the constructs was measured by the reliability of the model. These measures showed different characteristics according to data analyzed (see Table 4). Composite reliability and Cronbach's alpha indicated enough consistent in all cases. However, AVE of constructs relating to the human and technological resources management, zone resources management and customer management did not reach 0,50; but, to be near that amount, composite reliability is high and components were coherent with the theory , then we accepted the representativeness of the constructs.

**Table 4: Reliability and AVE**

	<b>AVE</b>	<b>Composite Reliability</b>	<b>Cronbachs Alpha</b>	<b>Communality</b>
<b>CM</b>	0.4554	0.8695	0.8301	0.4554
<b>HTRM</b>	0.4819	0.8928	0.8652	0.4819
<b>INNO</b>	0.5531	0.8597	0.7950	0.5531
<b>PM</b>	0.6271	0.8704	0.8015	0.6271
<b>PERF</b>	0.5082	0.9298	0.9190	0.5082
<b>ZRM</b>	0.4265	0.8988	0.8776	0.4265

Effects between any two elements of proposals paths were tested to analyze the process of generating business performance from core competencies. First, we tested hypothesis H1 referred to the effect of product marketing policies on customer management. Table 2 shows the results of our model estimation. It can be seen as the t-statistic constructed using bootstrap techniques shows that the impact of product marketing strategies for zone resources management is significant. We accepted H1. This effect is a consequence of the necessary organization of core competencies relating to the customer management what is a direct result of marketing strategies developed by the company (Narver & Slater, 1990)

**Table 5: Structural Model—BootStrap**

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>Standard Error (STERR)</b>	<b>T Statistics ( O/STERR )</b>
<b>CM -&gt; ZRM</b>	0.4190	0.4508	0.1124	0.1124	3.7286
<b>HTRM -&gt; INNO</b>	0.5890	0.6150	0.0869	0.0869	6.7781
<b>INNO -&gt; PERF</b>	0.3361	0.3852	0.1373	0.1373	2.4484
<b>PM -&gt; ZRM</b>	0.3313	0.3153	0.1373	0.1373	2.4119
<b>ZRM -&gt; HTRM</b>	0.6507	0.6657	0.0974	0.0974	6.6809

H2 postulated the strategic resource management associated with the territory depends on the customer management; therefore we expected a positive impact. That was found in the aforementioned Table 5. The corresponding t-statistic using bootstrap is clearly significant.

Zone resources management determined human and technological resources management. That effect was postulated by H3. Table 5 found that effect was significance.

The effect of Human and technological resources on innovativeness was also tested using the bootstrap t-statistic (see Table 5). The conclusion was that this impact was also significant, thus accepting hypothesis H4.

Hypothesis H5 suggested that innovativeness improve firm performance. Table 5 shows the validity of this assertion for the case study. Thus regional SMEs with capacity and resources for innovation improve competitive success (Camisón et al., 2004).

Probably entrepreneurs develop their product marketing; and customer management. They are necessary to organize a set of external resources, associated with territory. This determines human and technological resources. Management of those resources provides innovativeness, that allows getting innovations in products, markets, or processes in the company. That innovation is what allows obtain better performance in the short term.

### ***Discussion and Implications for Management***

There are many aspects that can be advantages in business. Much of the modern works have been based on the RBT to develop sources of competitive advantage (Newbert, 2007). Most of them have examined specific aspects and assesses its impact on outcomes (Kamoche, 1996; Zhao et al., 2011). First we have started to consider the resources and capabilities of the company together with external factors as a source of competitive advantage (Grant, 2005). We have used tangible and intangible resources (Wernerfelt, 1984) and organizational capabilities (Grant, 2005) consistent with the RBT for this. Given the peculiarities of SMEs versus territory (Vázquez Barquero, 1999), it has taken into account along with the key factors of success of the activity (Grant, 2005). From these elements, the entrepreneur has generated core competencies that will be its potential competitive advantage. Some authors consider external networks and internal resources as competitiveness factors (Wu et al., 2008). We have added territory attached to external networks.

Entrepreneur chooses the strategic objectives and establishes its management. Afterwards, he/she organizes internal and external resources of firm and determines action competences that allow obtaining better performance. Core competences have been built according this scheme. We have established five core competencies relating to product marketing, customer management, management of human and technological resources, management the relations with the territory, and innovativeness.

The evaluation of this process has showed that only innovation is directly significant on performance. Therefore, only this can be considered an action competence. This indicates the important

role of innovation in obtaining better performance on the company (Pil & Holweg, 2003; Camisón et al., 2004). There often is a positive relation between innovation and business success in SMEs. Competitive advantage lies in the least bureaucratic complexity, increased communication between all levels of the company and the greater proximity to the market that allow responding more quickly to the customers' needs (Lloyd-Reason et al., 2002). This paper emphasizes the uniqueness of innovation as channel to obtain better performance in SMEs.

However, other core competencies have had an effect on innovation and therefore they have had an indirect effect on company performance. Many authors indicated a positive effect of human resources on firm performance (Gadenne, 1998; Hornsby & Kuratko, 2003), although others did not give much importance (Deshpande & Golhar, 1994). Human resources management is regarded as an influential part of the innovation of the company (Chandler et al., 2000). Human resources are also considered key to the innovation as having higher levels of communication and lower levels of formalization facilitates the creativity of workers to help you develop innovations (Verhees & Meulenber, 2004). Obviously use of technological resources also has an important effect on innovation since they optimize performance of human resources of the company and facilitate possible innovations (Donovan, 1996). This is consistent with other work of the organizational literature that emphasizes the importance of building close to the market and the customer given the small size of firms (Pelham, 1997; Baldacchino, 2002). Both factors have been considered as elements of competitive success in the literature in large enterprises (Pil & Holweg, 2003) and small (Taymaz, 2005). However authors have individually considered effect of different elements. We have conjointly analyzed effect of management of human and technological resources as core competence.

Management of external resources of firm improves innovativeness through human and technological resources. Business clusters theory postulated that cooperation between firms improves intellectual capital of firms and particularly human and technological resources. We have tested this effect. In general, clusters are essential to the constitution of training networks. These improve human capital of the firm, and consequently human resources. Moreover, the limitations of resources in SME limit their ability to acquire technologies. For this reason, cooperation appears as a strategy to create networks that underpin the development of improved products, processes or services (Verhees & Meulenber, 2004). Moreover, the need for funding and physical resources in the enterprise is needed for

investment in future technologies. Consequently, zone resources management is fundamental to development of human and technological resources management.

The different elements involved in a good organization of business resources make it possible for businesses to better proximity to customers and generate value to the product or service. Product management was considered a success factor for companies because it allows optimizing relationships with customers (Pelham, 1997; Baldacchino, 2002), suppliers and other zone resources. This has been tested with H1. SMEs have greater quickness to adapt to customer needs, favored by low bureaucracy (Pelham, 2000). This proximity of the client is closely associated with zone resources that the company manages. Customers' management is associated with internal and external resources of the firm. Hypotheses H2 and H3 have indicated these effects. H2 has indicated effect of customer management on zone resources management. H3 has indicated indirect effect on human and technological resources through zone resources management. Customer management has improved zone resources management and human and technological resources management; knowledge and dealing with clients probably improves the rest of the organization both internal and external performances. Consequently that also indirectly affects performance of the company.

The company's intellectual capital has been allocated to different core competencies: relational capital has been allocated in zone resources management; Human and structural capital have been allocated in human and technological resource management and innovativeness. The latter directly affect performance of firm. The others have determined innovativeness and therefore it indirectly are competitive advantages. Consequently, and according to many authors (Bontis et al., 2000) intellectual capital investment by the company will be key in developing their competitive advantages, but we have indicated how this effect has been produced. Moreover we have determined how entrepreneurs use intellectual capital to constitute core competences and what the process to obtain better performance is.

Lastly, we have found that product marketing and customer management is the root of the whole process thereby justifying the hypothesis H1 and H2. Thus it appears reasonable to consider that product management and the management of clients determines zone resources management. This is the sequence of value chain of the firm. Consequently, the management of commercial resources and clients will be fundamental (Narver & Slater, 1990).

Hypotheses tested suggest a series of results interesting for corporate governance. First, the competitive advantages of SMEs are formed by combination of resources and capabilities of the company

taking into account external factors related to the activity. In general, companies make use of all of them to generate core competencies. This indicates the importance of good strategic diagnosis to know the internal and external factors that influence on the activity since they all are usable as a source of competitive advantage.

First entrepreneur must promote innovativeness that is built from intellectual capital. Consequently, it is clear to stress the importance of SMEs to keep training and investment in intellectual capital as a basis for future competitiveness. The order of importance of different types of resources is in line with current theories (Newbert, 2007).

Afterwards, entrepreneur has to organize internal and external resources of firm to improve innovativeness. In particular we have showed that for SMEs it is important to consider human and technological resources and the territory (Vázquez Barquero, 1999) because it assigned to one of core competencies. This resource does not directly affect performance, but it is acting indirectly through innovation, clearly encouraged by the cooperation and relationship with customers and suppliers (Verhees & Meulenber, 2004). By it is important for SMEs to promote the formation of business clusters to facilitate internal Knowledge management. That organization must be coherent with its strategic objectives shown in its management of product and customers.

This causal process indicates the importance for SMEs to ensure consistency in the use of their core competencies. His process indicates to entrepreneur the way to arrange their core competences to obtain competitive success. On the one hand the product management should guide the management of clients, which allows for the organization of external resources of the company, that determines internal resources to improve its innovativeness, which essentially generate better performance.

### **Limitations and Possible Developments**

This paper presents an empirical model to evaluate the process of generating business performance from the company's core competencies in a given area taking into account other external factors associated with the key success factors of an activity. The territory is analyzed as a carrier for the suppliers, the firm and the clients and not as a source of culture and labor market, or legislation, etc ... all factors of attraction. In this sense the model could be improved taking into account these complementarities. The model provides an outline of resources and capacities according to different characteristics studied (Wernerfelt, 1984; Bontis et al., 2000; Grant, 2005) aimed at the study area. That

limits their scope, since there are other features that can be included as possible sources of competitive advantage.

Another aspect that may be tempered concerns how to measure when an aspect can be considered a competitive advantage or when a company has obtained good performance. The fact of using a subjective assessment sometimes can affect results. A possible alternative would be to test the validity of these measurements with some objective indicator of each. However, some authors suggest that may fit better measure performance subjectively to assess subjective aspects such as the advantages competitive (Covin et al., 1990) since they show better rating global performance.

The sample type selected can be also a limitation. The need to work with strategic questions required searching through the more professional companies that implied a bias towards the largest in this field. For them, the findings may not generalize to smaller firms. Moreover, because data are in a time of expansion of the economy can influence the choice of competitive advantages and the status of the valuation of businesses. But all the factors to be similarly situated for business and pick up a timeless vision, the results can be generalized to the entire economy. In that sense, it would be interesting to monitor the sample of firms using panel data to assess the development of competitive advantage.

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