

Environmental's Proactivity Measurement Tool Validation

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ABSTRACT

Environmental proactivity is raised as a fundamental part of the corporate social responsibility of companies. Moreover, environmentally responsible behavior is part of the culture of the company and generates both, tangible and intangible benefits. Different classifications depending on how companies react to the social environmental demand can be found, but a method applicable to industrial sectors still lacks. The aim of this paper is to validate a measurement tool for analyzing the incorporation of environmental proactivity to the overall strategy of the organizations and to characterize the industry's behavior as a differentiator and able to generate competitive advantages for the industry.

Keywords: Corporate Social Responsibility; Sustainable Development; Strategy; Environmental Proactivity

1. INTRODUCTION

More companies are aware that they can contribute to sustainable development guiding its operations in order to promote economic growth and increase its competitiveness while ensuring environmental protection and promoting social responsibility, including consumers interests (Barba and Atienza, 2008, Phillis et al., 2003). In recent years, international initiatives that have promoted the incorporation of the Social Corporate Responsibility (CSR) in business strategy (European Communities, 2007) have emerged. The Social Responsibility of the company or Corporate Social Responsibility (CSR) is a set of obligations and commitments arising from the impacts that company's business originates within their social, labour and environmental scope (Carroll, 1999). In this new context, it is essential to analyse to which extent the environmental factor is part of the business strategy of companies.

Although research on environmental management is relatively recent, at this moment, it's an area of great scientific interest both for large corporations and small and medium-sized enterprises (Gadenne et al., 2009). Authors such as Horbach (2008) identified that the environmental regulation, the environmental management tools and the organizational changes represent an important and strong motivation for environmental innovation in enterprises (Segarra-Ona, et al., 2011). At a general level, the influence of factors like social pressure, environmental legislation, competitive advantages, the managers commitment in the environmental orientation of the company and the development of their strategies, have been already studied (Fraj et al., 2011).

2. THE ENVIRONMENTAL STRATEGY

There are several authors who have made business classifications based on the environmental strategy as shown in table 1. In general, four approaches based on endogenous and exogenous environmental risks are defined: reactive, proactive, strategic and preventive. As a seminal work in the field, Banerjee (2002) identified the factors that should be taken into account to carry out the classification. He also developed the research based on the theoretical arguments linking corporate environmentalism to the strategy, especially, the competitive strategy and the process of integration of environmental issues at the highest levels of strategic decision-making in order to

determine what types of enterprises according to the environmental commitment adopted. He established the existence of four types of companies according to their environmental commitment: companies with internal environmental orientation, IEO, companies with foreign environmental orientation, EEO, companies with corporate environmental strategy, CES, and corporate environmental marketing, CEM.

Table 1. Alternative classification of environmental strategies

Author	Classification
Hunt & Auster (1990)	Beginner, fighter, concerned, pragmatic, proactive
Winsemius & Guntram (1990)	Reactive, responsive, proactive constructive
Roome (1992)	Non-accomplishment, accomplishment, extended accomplishment, excellence, leadership
Azzone & Bertelè (1992)	Estable, reactive, proactive, proactive creative
Sadgrove (1993)	Penalized, backward, conformist, leadership
Aragón (1998)	Non-accomplishment, accomplishment, extended accomplishment, excellence, leadership
Vastag, Kerekes & Rondinelli (1996)	Reactive, proactive in crisis, strategic, proactive
Schaefer & Harvey (1998)	Beginner, fighter, concerned, pragmatic, proactive
Henriques & Sadorsky (1999)	Reactive, defensive, accommodative, proactive
Banerjee (2002)	Companies with internal environmental orientation, IEO, companies with foreign environmental orientation, EEO, companies with corporate environmental strategy, CES, and corporate environmental marketing, CEM
Fundación Entorno (2003)	Leader, proactive, reactive, negative and indifferent
Gonzalez Benito & Gonzalez Benito (2005)	Reactive, pro-certification, pro-design, pro-logistics and pro-business

On the other hand, there are authors that identify the environmental strategy as something inherent to the business culture, facing the challenges of environmental regulation and the new socio-cultural changes with regard to the environment (Schwartz, 2009). Verbeke et al. (2006) integrated environmental strategies analysis and the development of specific environmental capabilities of the company arising from the resources and capacities theory, RBV (Penrose, 1959).

Although these studies may seem different, all of them have some points in common, they all analyze strategic positioning in different intermediate stages between the more reactive and the more proactive points of view (Alvarez et al., 2001). The factors that determine a proactive environmental orientation of a firm have been classified as internal aspects (size, level of internationalization, position in the value chain, management attitude and motivations and strategic attitude of the company) or external aspects (industry and geographic location). Also, the pressure of the shareholders/owners, has been detected as a crucial factor (González-Benito and González Benito, 2006). In the same line, Murillo-Luna et al. (2007), classified the factors in external (legislation, customers, suppliers, companies, entities, financial, insurance, media, environmentalists and/or citizens or upcoming communities) and internal (management, shareholders and/or employees).

Some studies have applied the theories developed so far to identify what factors affect the environmental orientation that companies adopt. In the retail industry, the external pressure, the environmental orientation, the corporate and marketing strategies and the presence of a marketing department have been identified to have an effect on the adoption of a specific environmental strategy (Buil et al., 2008). González Benito and González Benito (2005) identified various strategies of proactive environmental orientation in three manufacturing industries (electric, chemical and furniture), noting the multidisciplinary nature of the proactive environmental orientation.

Although the work carried out to date has a great quality and specialization (Pereira-Moliner et al., 2010), there are still not enough data to help identify what aspects of proactive environmental orientation are influencing business competitiveness. It is increasing the necessity for companies to integrate into their management style, as a strategic factor, the differentiation strategy through sustainability, although there is still not enough scientific basis to measure it. Hence, the objective of this study is to validate a measurement tool that can help to do it.

3. METHODOLOGY

In this work, we considered the industrial companies in the Valencian Community (Spain) with less than 250 employees, SMEs (see table 2). To validate the questionnaire that measures the proactive environmental orientation (Segarra et al., 2012), it was distributed between January and May 2010 to 243 industrial companies located in the indicated area. 96 of the selected companies completed the questionnaire. The information collected includes an assessment of the leaders/managers of companies surveyed on the introduction of environmental measures and on the integration of a proactive environmental orientation in business strategy.

Prior to its final dissemination, the questionnaire was submitted to a pre-test group to check and discuss the adequacy of the questions. The pilot interview was conducted in 5 companies, 2 of them in the agri-food industry, both very advanced in environmental aspects, other 2 in the recycling/collection of waste industry and, the last one, in a technological Institute, AINIA, which has its own Department of environmental management. We wanted to gather information at a business management level and from industrial sustainability experts.

Table 2. Sample firms characteristics

Number of employees	
Less than 50 employees	20%
Between 50 and 249 employees	47.4%
More than 250 employees	32.6%
Business type	
Local business	21.3%
National business	40.4%
International business	18%
Multinational business	20.2%
Employees with higher education degree	35.24 ± 192.79
% of firms with Environmental Management department	53.2%

In order to sort companies into groups, called clusters or conglomerates, we applied the “cluster analysis technique”, considering the proactive environmental orientation level and the implementation level of environmental practices as main variables. Therefore, the degree of similarity between members of the same cluster is stronger than the degree of similarity between members of different clusters (Hair et al., 1998, Pedhazur, 1997, Peng et al., 2002).

4. DISCUSSION OF RESULTS

Hierarchical cluster analysis using Ward method determined the existence of three clearly differentiated conglomerates as reflected in table 3. 8 companies were dismissed, 4 of them due to a lack of important information to be included in the analysis and the rest because didn't fit in any of the 3 clusters.

Table 3. Cluster analysis description

Clusters	Number of companies
Low environmental proactivity	15
High environmental proactivity	33
Medium environmental proactivity	48

The first cluster encompasses companies with low environmental proactivity. This cluster consists of the set of companies that do not identify the environment as an opportunity to innovate, sparsely applied environmental preventive and management systems, consider that the environmental concern poses a threat to the business and find it difficult to take actions. Such companies are still in a reactive attitude with the environment.

The second cluster matched companies with high environmental proactivity. This cluster is composed of companies that identify the environment as an opportunity to innovate, apply environmental preventive and management systems, always react and make decisions to accomplish with the regulations, totally disagree with believe that environmental concern is a threat to the business and take actions easily.

The third of the clusters encompasses companies with medium environmental proactivity. That is, they go further than established regulations, consider important to carry out environmental practices, but as a result of different reasons have not reached a high level of proactivity.

5. CONCLUSIONS

In this work a proactive environmental analysis tool has been used (Segarra et al., 2012) to classify a sample of industrial companies based on its proactive orientation toward environment. We have identified three groups of companies clearly differentiated, composed, respectively, by companies that adopt a proactive attitude towards environmental practices, which are not limited by regulations, but also identified the environmental management as an opportunity to innovate and achieve a competitive advantage; companies that follow a reactive position by only adopting the changes required by existing environmental regulations, and a third, halfway between the previous ones, a group with a medium level of proactivity.

The methodology applied in this study is shown to be of interest and useful as it enables to classify the companies studied according to their environmental proactivity and to objectively measure the importance of the actions taken by the company. The analysis of the environmental factor as a proactive aspect of a company management strategy is a complex phenomenon involving a number of determinants.

Future studies will consider extending the study to other manufacturing industries for the purpose of drawing up a Spanish map of environmental proactivity, and will replicate the analysis in studies including other neighbor countries.

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