Documento de trabajo

SEMINARIO PERMANENTE DE CIENCIAS SOCIALES

THE ENVIRONMENT IN THE BUSINESS STRATEGY: REVIEW OF THE LITERATURE

VIRGINIA BARBA SÁNCHEZ
CARLOS ATIENZA SAHUQUILLO

SPCS Documento de trabajo 2007/4
http://www.uclm.es/CU/csociales/DocumentosTrabajo

Facultad de Ciencias Sociales de Cuenca | Avda. de los Alfares, 44 | 16.071–CUENCA
Teléfono (+34) 902 204 100 | Fax (+34) 902 204 130

Autores:
Virginia Barba Sánchez
Virginia.Barba@uclm.es
Carlos Atienza Sahuquillo
Carlos.Atienza@alu.uclm.es

Edita:

Facultad de Ciencias Sociales de Cuenca
Seminario Permanente de Ciencias Sociales
Avda. de los Alfares, 44
16.071–CUENCA
Teléfono (+34) 902 204 100
Fax (+34) 902 204 130
http://www.uclm.es/CU/csociales/DocumentosTrabajo

I.S.S.N.: 1887-3464
D.L.: CU-532-2005

Impreso en España – Printed in Spain.

THE ENVIRONMENT IN THE BUSINESS STRATEGY: REVIEW OF THE LITERATURE

Virginia Barba Sánchez[*] y Carlos Atienza Sahuquillo

Universidad de Castilla-La Mancha

Abstract

In an environment characterized by a global, dynamic, and increasingly more competitive economy, businesses must identify advantages which enable them to achieve higher profits than their competitors. As such, the integration of an environmental variable in business strategy is being promoted as a potential source of competitive advantages. Justifiable reasons for this include that it can lead to improvements in aspects as varied as product quality, reduced manufacturing costs or the liberalization of new markets. However, it is not a simple task to draw a correlation between an enterprise's strategic environmental behaviour and its success.

Most of the literature trying to explain this relationship has concentrated its focus on a single, purely theoretical aspect; thus, we propose the joint consideration of various aspects and theories that will enable us to offer a more understandable and enriching view of these behaviours. Therefore, the objective of our work is to analyse the integration of the environmental factor in managerial strategy using a three-point perspective: focusing on the Resource-based Theory of Competitive Advantage, on Dynamic Capabilities, and also on Corporate Social Responsibility.

Keywords: Environmental strategy, resource-based theory of competitive advantage, corporate social responsibility.

JEL Classification: L10, M14, Q20.

[*] *Corresponding autor:* Facultad de Ciencias Sociales. Avenida de los Alfares, 44. C.P. 16002. Cuenca. Tél. +34 902 204 100; Fax. +34 902 204 130; E-mail address: Virginia.Barba@uclm.es

1. Introduction

The current degradation of the environment is one of the subjects of utmost concern to our society. Massive consumption of resources and energy coupled with the generation of a great amount of waste has created an enormous threat to the environment, through global warming, ozone layer reduction, air and water pollution, and erosion and deforestation, all of which require quick solutions (Del Brio and Junquera, 2003; Banerjee, 2002; Murillo et al., 2004).

Although these problems are not particularly new, it is in recent decades that they have begun to cause great social concern (Aragón, 1997) which has had an effect, for example, on consumer buying behaviour. Now, a wide variety of associations are calling for compatibility between the productive activity of enterprises and environmental protection through good management of natural resources (Claver et al., 2004). Enterprises must then adapt existing strategies or adopt new strategies to attend to these demands and survive in an ever more competitive environment. Moreover, world governments also have societal demands in mind, designing control and punishment mechanisms which minimize the impact that the behaviour of both consumers and enterprises can have over the natural environment (Banerjee, 2001).

However, it is clear that the situation of the enterprise with respect to the environment is conditioned by the effects that several factors have on it, whether they are internal or related to the environment in which they operate. Of the former, the most prominent are the resources and strategic environmental capabilities (in which the best use of the resources already in existence or potential resources are considered) developed from the incorporation of new environmental activities. With respect to environmental factors, enterprises are subject to great pressure from numerous agents, among which are included stakeholders, the establishment of environmental standards, and even the barriers or obstacles generated by the very same sector to which the enterprise belongs, whose common interest is making enterprises reduce the environmental impact of their industrial activity (Hart, 1995; Porter and Van der Linde, 1995; Sharma and Vredenburg, 1998; Claver et al., 2004).

The result is that not all enterprises are influenced in the same way by environmental variables. Some of them try to resist change and others attempt to adapt to it by choosing an environmental strategy that guarantees a better relationship with pressure groups. Finally, there are those that try to influence the change and even lead it to take advantage of the creation of new competitive opportunities. Many of them have opted to certify and eco-label their products, or incorporate environmental management systems, investing, for example, in new technologies that reduce raw materials consumption and pollution from gas emissions (Fray and Matute, 2006). Despite the existence of these options, there are still a large number of businesses that adopt passive attitudes towards the conservation of the environment, or those that respond to the environmental problem only to comply with a compulsory standard or regulation without a proper understanding of the policies and environmental strategies involved (Post and Atlman, 1992).

Therefore, the aim of our study is the analysis the environmental behaviour of enterprises, starting with a look at the three main theoretical perspectives that provide a referential framework. We will review the literature about the integration of the environmental variable in the managerial strategy and examine the three previously mentioned viewpoints: resource-based theory of competitive advantage, dynamic capability and corporate social responsibility. Afterwards, factors which determine the ecological strategy of the enterprise will be exposed. Finally, the main conclusions obtained from our study will be presented.

2. Review of the literature

The environmental commitment of the enterprise has become an important variable within today's competitive business atmosphere. The investigation of an enterprise's organization with respect to environmental factors has gathered increasing interest only recently. There are authors who state that the environment, which had been ignored by organizational theory until just a few years ago (Gladwin et al., 1995; Shrevastava, 1995) is now considered to be a new paradigm based on the enterprise-environment relationship (Garrod and Chadwick, 1996; Banerjee, 2002).

This paradigm proposes a reconceptualization of organizational theory to include an environmental variable in its analysis. Here we find a common point of reference between Hart (1995) and Jennings and Zandbergen (1995). Both articles establish the subject of environment in direct relation with a specific paradigm from the area of organizational business knowledge. Hart (1995) delimits his work within the context of the resource-based view and proposes a scheme with three environmental strategies able to generate the basic resources for the development of competitive advantages in an organization: pollution prevention, product guarantee, and sustainable development. Likewise, Tennings and Zandbergen (1995) analyze the application of institutional approaches to sustainability through three aspects: a) the acceptance and value assessment of organizational sustainability, b) the construction of social and organizational contexts and the diffusion of sustainable practices and c) the introduction of sustainability in the constituent, standard, and regulative rules.

These articles are key reference points in the consolidation of research on the subject. Since the release of these two papers, literature about the existing relationship between the environment and businesses has been extensive; in table 1 we show some of the latest studies produced in this field of study to determine the present situation of the research and speculate in what direction studies should continue in the future. To this end, we have been able to identify five main research foci:

- *Influence of the environmental factor in strategic decision-making.* On this subject studies have been done by Hart (1995); Judge and Douglas (1998), Sharma and Vredenburg (1998); Christmann (2000) and Rugman and Verbeke (2000) each stating that environmental matters have increasingly more influence on business strategies (especially environmental strategies) focused on pollution prevention, energy conservation, ecologically-conscious product design, or the use of non-polluting technologies which can lead to improvements such as a decrease in production costs or an increase in product quality.
- *Identification of the roles of public administration and legislation as inductive factors of environmental behaviour* (Del Brio and Junquera, 2001; Murillo et al., 2004). The development of environmental legislation and public policies is one of the factors which has contributed to the increased importance of the environmental variable in managerial decisions (Russo and Fouts, 1997; Angell and Klassen, 1999; Henriques and Sadorsky, 1999; Vicente and Ruiz, 2002).
- *Stakeholder theory within the environmental perspective* (Garrod, 1997). This focus has received and continues to receive a great deal of attention from researchers. Studies within this realm can be divided into four groups (Céspedes

et al., 2003): a) studies emphasizing the role of external stakeholders in the evaluation of efficiency and environmental risk (Klassen and Vachon, 2003; Sharma and Henriques, 2005; b) those that highlight the importance of interest groups in making enterprises adopt communication and information programmes associated with the environment (Azzone et al, 1997); c) those that identify the most relevant lobbies in relation to environmental matters and study their influence on the environmental strategy of enterprises (Buysse and Verbeke , 2003; Céspedes et al., 2003); and d) other studies analyzing the cooperation between the enterprise and these groups (Delmas, 2002; Collins and Usher, 2004).

Table I. Main research lines

LINE OF RESEARCH	AUTHORS
Influences on strategic decision-making	Hart (1995); Judge and Douglas (1998); Sharma and Vredenburg (1998);Christmann (2000);Rugman and Verbeke (2000)
Influence of environmental regulations	Russo and Fouts (1997); Angell and Klassen (1999); Henriques and Sadorsky (1999); Rugman and Verbeke (2000); Del Brio and Junquera (2001, 2003); Vicente and Ruiz (2002); Murillo et al. (2004)
Stakeholders	Azzone et al. (1997); Garrod (1997); Delmas (2002); Buysee and Verbeke (2003); Céspedes et al. (2003); Klassen and Vachon (2003); Collins and Usher (2004); Sharma and Henriques (2005)
The role of managers in environmental matters	Jones (1995); Fineman (1997); Bansal and Roth (2000); Sharma (2000); Banerjee (2001, 2002); Del Brio and Junquera (2001); Aragón et al. (2004)
Introduction of good environmental practices	Sharma and Vredenburg (1998); Angell and Klassen (1999); Henriques and Sadorsky (1999); Christmann (2000)
Source: own	

- *The role of the management as an essential element in environmental strategy development.* Jone’s studies stand out (1995); Fineman (1997); Bansal and Roth

(2000); Sharma (2000); Del Brio and Junquera (2001); Banerjee (2002) and Aragon-Correa, Matias and Senise (2004) who state that top management has a very important role in the process of adopting a more respectful attitude towards the environment, as the level of managerial commitment to these causes determines the organization's disposition to adapt to new practices.

- *The development of good environmental management practices*. Authors such as Sharma and Vredenburg, (1998), Angell and Klassen (1999), Henriques and Sadorsky (1999) and Christmann (2000) base their studies on the level of incorporation of a series of good environmental practices to be able to develop ways to measure the environmental consciousness or its implications as it were.

  Most of the literature that has attempted to explain the environmental strategic behaviour of enterprises has focused on a purely theoretical aspect. Murillo (2007) states that it is not enough to study the relationship between the environment and managerial strategy. According to this author, the joint consideration of different views and theories enables us to offer a better and more enriching view of these behaviours. For this reason, our study is based around three foci: the Resource-based Theory of Competitive Advantage, Dynamic Capabilities, and Corporate Social Responsibility.

3. Focus on Resource-based Theory of Competitive Advantage, Dynamic Capabilities, and Social Corporate Responsibility

The complexity that has characterized environmental concerns in recent years, from both supply and demand perspectives, has been so profound that the degree of analysis and comprehensive knowledge acquired up to this point is not yet sufficient to allow for the creation of a sustainable competitive advantage. Foci regarding the internal operations of an organization are considered relevant to the field of managerial strategy (Claver et al., 2004) therefore there are many investigative studies that use ideas from the resource-based view (Wernerfelt, 1984; Barney, 1991; Hart, 1995) to explain the generation of sustained competitive advantages from the strategic resources and capabilities possessed heterogeneously by a business, as they are valuable and difficult to imitate or substitute.

Due to the fact that the main criticism to this point of view is its static nature and that it does not take the environment into account, we will also analyse the dynamic capabilities perspective, as enterprises face an ever-changing environment where customer preference is subject to change and technology is in a constant state of evolution (Grant, 1991; Aragón and Sharma, 2003).

Finally, we will also examine managerial ethics and the Corporate Social Responsibility (CSR) perspective, as they have been consolidated in a new paradigm due to the change the latter has produced in the value system. There has been an increase in the ecological and social consciousness of citizens that has in turn redrawn the demand curves of most markets and implicated the use of CSR criteria by businesses, thereby allowing them to project a positive image to all interest groups and contributing to the improvement of their reputations (Nieto and Fernández, 2004).

3.1 The Resource-based Theory of Competitive Advantage Focus

Within the various analyses of this theory there is lack of homogeneity among authors regarding the distinction between resources and capabilities. In fact, the literature tends to use the word "resource" in two ways: in a broad sense, as capabilities, and in a stricter sense, which provides a distinction between the concepts (Marín et al., 2004). With respect to the latter, Grant (1991) and Amit and Schomaker (1983) define resources as the inputs upon which the enterprise relies and through which its activities are performed. No income is produced on its own, rather, adequate coordination of resources is needed to gain competitive advantages. On the other hand, capabilities can also be more precisely defined; they consist of the ability to adequately manage resources to perform a task within the enterprise.

Hart (1995) and Sherma and Vredenburg (1998) state that the situation of the enterprise in relation to the environment is conditioned by environmental resources and capabilities, where newer and better uses for them are considered, in the same way their uses are developed through decisions based on the incorporation of new environmentally-conscious activities. Therefore, within the intellectual capital of an organization, we have *Environmental Capital* (Claver et al., 2004: 12). This is defined as the enterprise's increasing value due to the tangible assets generated by the combination of quality management of knowledge and the incorporation of the environmental variable (Poter and Van der Linde, 1995, Hart, 1995, Sharma and Vredenburg, 1998, Rugman and Verbeke, 2000).

Enterprises that manage environmental capital are more flexible because they adapt more easily to new dynamics than their competitors, because the creation, transfer, and application of this knowledge allows them to offer environmentally respectful products and services to the market and, therefore, generate intangible assets that will contribute to raised market and actual value (Claver et al., 2004).

On the other hand, environmental management has been defined as organizational capability because it allows for the efficient coordination of heterogeneous resources (raw materials, technology, human resources, etc.) both inside and outside the enterprise (Hart, 1995; Judge and Dougals, 1998; Sharma and Vredenburg, 1998). Even Aragón and Sharma (2003) have set up parallelisms between dynamic capabilities and environmental management because it is developed by means of a specific and identifiable process through which managers can integrate and shape their organizing capabilities (Eisenhardt and Martín, 2000; Teece et al., 1997).

3.2 Dynamic Capabilities Focus

This focus permits us to resolve some deficiencies brought to light in the resources vision, above all, in considering the effects of the passing of time and the evolution of capabilities. This theory illustrates the need of enterprises to alter their resource base and capabilities to be competitive and to generate new strategies that create value. Dynamic capabilities are defined by Teece et al. (1997: 516) as the ability to build, integrate, and reconfigure internal and external competencies to react to quickly changing surroundings.

According to Prahalad and Hamel (1990), dynamic capabilities arise from collective learning of an organization especially that relating to coordination of production techniques and integration of technologies and is based, above all, on intangible assets, particularly on the organizational and technological knowledge of the enterprise. Based on ideas from this perspective, the competitive advantages of an enterprise lie in their organizational and managerial processes, called ‘routines’, which are determined by their tangible assets, technology, industrial property, relations with suppliers and customers, and by strategic alternatives within their reach (Grant, 1991).

It has also been stated that the development of dynamic capabilities is determined by learning mechanisms such as repetition, trial and error, and experience, as well as the same market dynamism (Eisenhardt and Martín, 2000).

Although this focus is different from that of resource-based view because of the inclusion of dynamism in the model, both of them show the importance of internal business resources, especially those that are intangible, among which an enterprise's environmental capital is found (Claver et al., 2004). Furthermore, some studies based on these two focuses state the existence of a positive relation between environmental practise and the generation or reinforcement of organizational capabilities that eventually enable the improvement of results (Hart, 1995; Russo and Fouts, 1997; Judge and Douglas, 1998; Sharma and Vrendenburg, 1998; Chrisatmann, 2000).

Thus, Sharma and Vredenburg (1998) and Christmann (2000) suggest the existence of three organizational capabilities intertwined with the environment: 1) the capability to join together with the organisms and institutions that surround the enterprise and affect their development (e.g. regulator organisms or environmental organizations), fostering better relations and less opposition to development; 2) the capability to promote learning processes and increase knowledge as the company explores new alternatives and creates new interpretations of existing information, and 3) the capacity for continuous innovation, understanding that a greater wealth of perspectives and analysis in the learning process contribute to the continuous generation of technological, organizational and operational innovations (Carmona et al., 2003).

On the other hand, Aragón et al. (2005) have selected three of the organizational capabilities to which the literature has paid more attention: suitable management capability of pressure groups (Hart, 1995; Henriques and Sadorsky, 1999; Sharma and Vrenderburg, 1998), strategic pro-activity (Aragón, 1997; Sharma and Vrenderburg, 1998) and participative leadership (Hart, 1995; Russo and Fouts, 1997).

3.2.1 Capability to manage environmental interests of pressure groups. The capability to manage the interests of pressure groups (ie. stakeholders) has been considered a key indicator of organizational efficiency (Venkatraman and Ramanuja, 1986). The pressure applied by these groups has been cited as a factor that contributes to the environmental advances of enterprises(Henriques and Sadorsky, 1999), being that many studies have shown that managers' perceptions with respect to stakeholder interest have an influence on the ecological responsibility of management (Bansal and Roth, 2000). Sharma and Vredenburg (1998) point out the importance of the capacity to integrate pressure groups in the assessment of needs and implications of environmental strategic practises. This capacity is defined as "*the ability to create confidence through a collaborative relationship with pressure groups, especially those without economic interests*" (Sharma and Vrenderburg, 1998: 735). As for Henriques and Sadorsky, they show that enterprises that act with environmental consciousness usually consider these pressure groups to be important and also have the courtesy and necessary resources to actively solve their environmental problems.

3.2.2. Organizational learning capability. This capability has been emphasized in different ways in literature about environmental capabilities: high-level learning involving the identification and use of new combinations of resources (Sharma and Vrenderburg, 1998); the organizational obligation to innovate and develop workers' skills; discovery of talent, ideas and exterior technologies (Russo and Fouts, 1997). Young and Tiller (2006) define it as the entrepreneurial capability to generate and generalize ideas that impact multiple frontiers and business practises, by means of specific business administration initiatives. This capability is composed of three fundamental parts: 1) acquiring, discovering, creating, and promoting ideas; 2) sharing ideas internally in the organization and 3) detecting and correcting problems that may lead to failures in the two previous parts.

Pro-activity has been indicated as a key dimension of organizational learning capabilities. The pro-activity of an enterprise is considered to be a favourable contribution to the development of environmental approximations. Aragón (1997) and Sharma and Vrenderburg (1998) show empirically that a proactive strategy promotes the adoption of a more advanced environmental stance.

Knowledge, which can be considered the most important strategic resource, is among the resources generated by organizational learning capability. The ability (organizational learning) to share this knowledge is the most important factor in creating and keeping a competitive advantage. Since Hart´s pioneering work (1995), literature about environmental management has focused on the importance of the participation of all workers in the organization. Later empirical works have widely strengthened support for this point (Aragón, 1997, Sharma and Vrenderburg, 1998). Specifically, Ramus and Steger (2000) showed that employee perception of open managerial behaviour towards making participative and democratic decisions and, more precisely, supporting of the idea of communication-sharing, promotes the development of environmental initiatives in an enterprise. The proximity of a leader to his employees in small enterprises makes this direct communication easier.

Organizational learning capability not only leads to the development of entrepreneurial capabilities but also to competitive advantages in terms of improved efficiency, cost reductions, higher productivity and it also triggers continuous innovation capability. The literature considers organizational learning a fundamental element for the improvement of an enterprise's competitiveness (Fiol and Lyles, 1985; Dodson, 1993; Brockmand and Morgan, 2003). For this and other reasons, enterprises with a higher learning capability are thought to be more sensitive to changes and tendencies in the market. They are usually more flexible and answer more quickly than their competitors to such changes because organizational learning provides for the creation of new useful knowledge for making decisions in the enterprise, allowing for more complete adaptation to the environment and increased efficiency capabilities (Snell et al, 1996).

3.2.3. Continuous innovation capability. Innovation is defined as an advance applied to the technical development of an industry (Mandado and Fernandez, 2003) because it involves a new product, service, practice, process and/or technology (Schumpter, 1939) as well as contributions from other sources of external knowledge. The practice of innovation provides an endless source of competitive advantages (Nieto and Quevedo, 2005), that is, provides distinctions within industrial sectors and allows enterprises to anticipate the movements of their competitors.

So, the socioeconomic welfare and development of a territory depends, to a great extent, on the degree of innovation generated and, with more and more intensity, on research and development activities. The internal generation of knowledge through investment in R&D (Research and Development), human resource training, industrial property, organizational design or information technology, among others, permits interaction among individuals and enterprises and positively influences innovation, resulting in new values and creation of wealth (Hamel, 1999).

Moreno and Vargas (2004) state that continuous innovation is a key element to achieving entrepreneurial success, since the material elements of the enterprise can be improved through adaptation and optimization of resources, R&D activities, with completely new technologies, or also with the recombination of those previously in existence. Furthermore, intangible elements of the enterprise are also improved, such as industrial property, technological knowledge, and the culture, rules and values that support structural flexibility and organizational changes. Camisón and Lapiedra (1999) point out that successful enterprises base their competitiveness on the values that facilitate innovation in enterprises, adapting and optimizing their resources and capabilities, which are difficult to reproduce or imitate by competitors.

In sum, given the opportunity these organizational resources and capabilities which are reinforced by environmental analysis would positively affect business activity by enabling the reduction of costs or by increasing the level of organizational differentiation (Hart, 1995; Sharma and Vrenderburg, 1998; Christmann, 2000).

3.3. The Corporate Social Responsibility Focus

Traditional business objectives used to base their activities solely around obtaining benefits and ensuring shareholder satisfaction, but now these interests are being complemented by others related to the environment and human rights, thus, there is a growing connection between ethics and business affairs (García-González and Boria, 2006). Numerous facts prove this relationship, in particular we would like to reference the following: the existence of pressures from social groups, the improvement of the business image, market concern for the environment, and the use of environmental policies to achieve competitive advantages (Angell and Klassen, 1999; Del Brio and Junquera, 2003; Martín and Díaz, 2006). This has caused a social change that promotes CSR in enterprises, defined as "*the long-term entrepreneurial commitment to work with the environment*" (García-González and Boria, 2006: 3); for this reason enterprises voluntarily incorporate social and environmental criteria into their economic activities and business relationships (European Committee, 2004).

There are three basic distinctions within CSR (Gray et al., 1995): the economic, socio-cultural, and environmental areas. Different explanations of the social performance of an enterprise can be found in each area; all of which imply positive results for the social environment, but with different origins, intensities, and strengths (Burguillo and García, 2005). The origin of their performance is marked by the belief that the enterprise is a social entity and must perform as one. This origin has a considerable influence on the intensity of both internal and external social importance of the enterprise as well as on its strength and endurance (De la Cuesta and Valor, 2003).

In this research study, we will focus on the environment, and continue with a look at the development of new products, the location of new production centers, investments in R&D, the development of new technologies and the change in the product and process design, as examples of strategic business growth influenced by environmental variables *(*Briones and Laborda 2006: 17). As such, we will study the integration of the environment into the strategic planning process, as the use of CSR practices contributes to the improvement of a business' reputation and prestige, and can even become a competitive advantage (Nieto and Fernández, 2004).

The development of CSR has been possible because of changes in social value systems, especially apparent in developed countries (where there is more concern for environmental damage, discriminatory working practices, human rights, etc.). These changes have been associated to three main factors (Nieto and Fernández, 2004):

- *An increase in regulations*. Regulations have come from several different international sources (UN, OECD, EU, etc.) and also from more local governing bodies demanding that all economic agents respect rules of various natures that seek the general benefit of humanity.
- *Consumer market pressures.* Today's consumer markets are gradually revealing the trend that a growing number of consumers choose responsible consumption techniques by searching for ecological products or those produced according to CSR criteria (fair trade, frugal use of non-renewable resources, fair working conditions, etc.)
- *Financial market pressures.* Pressure on the financial market is the most recent change. In the stock markets, the group of investors who wish to make socially responsible investments, in particular in funds and enterprises that adhere to

good CSR practises, is increasing. Research exists that indicates that investors are not acting purely on altruistic values, but rather because a positive correlation has been found between social and financial performance (enterprises with a higher level of CSR have fewer sanctions, higher quality management, better reputations, and are more attractive in the recruitment and retention of the best employees).

Gallego (2006) presents two main factors that have led enterprises to adopt CSR criteria: a) on one hand, a higher level of social consciousness worldwide, with public opinion increasingly critical of the negative effects of globalization and with the proliferation of associations and initiatives which have been established to address this matter in recent years, through non-governmental organizations, foundations, standardizing institutions, etc.; b) and on the other hand, the increased diffusion among businesses of a number of advantages offered by CSR, not only as a defensive strategy which lets them, for instance, protect themselves from possible sanctions or lawsuits but also as a more offensive strategy used to create value. All of this is the effect of the higher importance given to social criteria in consumers' shopping decisions.

Generally, individuals are not willing to consume products or services from enterprises that are known to act unethically. With regard to growing competitiveness and increased accessibility of information to a greater percentage of the population, enterprises feel more forced than ever to adopt CSR practises (Gallego, 2006).

4. The ecological strategy of the enterprise

Environmental affairs have progressively more influence on business strategies, bolstering so-called environmental or ecological strategies, focused on pollution prevention, energy conservation, ecological product design, the use of non-polluting technologies, consumption reduction or recycling, and the use of recycled materials which may lead to improvements such as production cost reductions, increases in product quality, or the opening of new markets. (Martín and Díaz, 2006; Fraj and Matute, 2006).

According to Aragón (1997) and Sharma and Vredenburg (1998), the environmental strategy of the organization materializes around the selection of a series of environmentally-conscious practices begun within the enterprise and the degree to which these practices are developed and coordinated. Other authors like Buysee and Verbeke (2003) suggest that a business' environmental strategies can be characterized according to three classifications: those that seek only to comply with the law; those that focus on detailed practices which simultaneously and immediately allow for environmental and competitive improvements, and, finally, those practices which are more proactive.

In fact, there are a lot of classifications of environmental strategies, but two extreme positions normally distinguished in the literature are: a) environmental reactivity, typical of enterprises that seek nothing more than compliance with the law and introduce only minimal changes, this includes increases in pressures resulting from legislation and by the actions of other interest groups such as consumers, shareholders and the community where the enterprise is located (Russo and Fouts, 1997; Angell and Klassen, 1999; Henriques and Sadorsky, 1999) and b) environmental pro-activity, which is a sign of the growing social sensitivity towards the environment and includes voluntary measures that reduce the impact on the environment. Authors such as Sharma and Vredenburg (1998), Angell and Klassen (1999), Henriques and Sadorrsky (1999) and Christmann (2000), have developed ways to measure the pro-activity, conscientiousness, or environmental implications basing the method mostly on the degree of incorporation of good environmental practices.

But the activities carried out by businesses can vary based on the fact that the integration of these variables can take place at different strategic levels (González-Benito and González-Benito, 2005), depending on managerial perception of the importance of these variables (Benerjee, 2001). In general, those enterprises whose economic activity has a great impact on the environment will be more likely to be concerned about carrying out environmental strategies at all levels.

4.1. Conditioning factors to ecological strategies

Motivations or factors that lead enterprises to introduce systems of environmental management are varied and have been gradually evolving. According to Cruz et al. (2005), we can categorize the main reasons in two broadly defined groups:

1) *Internal reasons*. Those which improve the quality of a product/service, managerial objectives, cost reductions, improvements of the organizational infrastructure, the promotion of management quality, efficiency controls, and increases in employee satisfaction.
2) *External reasons or those with market origins*. Those related to customer demands, continuations of market trends, promotions of the corporate image, pressures from competitors, the development of new markets, growth in international competitiveness, and increases in market premiums.

Next, we will show some of the factors identified by economic literature as having an influence on the limits on the development of environmental strategy (Del Brío and Junquera, 2003; Fraj and Matute, 2006):

-Financial resources: The scarcity of financial resources is a limiting factor in the environmental development of enterprises (Noci and Verganti, 19).

-Human resources: Environmental management is intensive in human resources and relies on the development of tacit skills through employee involvement (Hart, 1995).

-Organizational structure: It is easier to introduce environmentally-friendly practices in enterprises with a well structured and standardized organization, ie. large businesses (Alberti et al., 2000).

-The executive role: Executive attitudes concerning the environment have a decisive influence on the environmental performance of an enterprise. In order for an enterprise to decide to initiate control practices or introduce “environmental management systems” executives must previously be aware of the origin of opportunities and threats in their sector which may have an influence on their environmental activities (Claver et al., 2006).

- Environmental interest groups: Governments, consumers, competitors, and clients to name a few. Their interest in environmental protection drives them to pressure enterprises to adopt environmental practices (Delmas and Toffel, 2004).

It must be clarified that these factors cannot be taken into account as solitary elements, on the contrary, they are strongly interrelated. They are all necessary elements to preserve the coherence and effectiveness of the introduction of “environmental management systems” in an enterprise (Cruz et al. 2005).

4.2. Obstacles to ecological strategy adoption

According to Wood (1991), the improvement of social performance in an organization or enterprise entails changing its behaviour to reduce damages and produce beneficial results for society.

However, in addition to the agents that pressure businesses to adopt ecologically responsible measures with possible advantages, there is also a series of obstacles that get in the way of their incorporation. (Murillo et al., 2004). Some authors as Hillary (2003), Izaguirre et al. (2005), classify the barriers to the application of an ecological strategy into two types: internal and external.

4.2.1. Internal barriers

- Obstacles related to organization: the limited commitment of employees and executives to the social environment, together with insufficient training or qualifications and a lack of information, resultant from the limited knowledge of environmental problems on behalf of both managers and consumers (Hillary, 2003; Murillo et al., 2004; Izaguirre et al., 2005).
- Executives´ negative attitudes: regarding environmental matters, whether it is the result of an unfavourable entrepreneurial culture that gives little importance to environmental research or for their perception of environmental pressures as a threat, they are a major obstacle to the introduction of more advanced approaches to environmental management in a business.
- Technical and technological problems: these problems can range from uncertainty to the high cost associated with the incorporation of newer and cleaner technologies or even the lack of benefits from economies of scale or the expiration of old technologies, etc. (Murillo et al., 2004).

- Other internal barriers: these handicaps may include resource scarcity, problems in strategic and organizational adaptation, and the difficulties associated with the introduction of "environmental management systems" (Hillary, 2003).

4.2.2. External barriers

- Future investments: Post and Altman (1992) consider investment in clean technologies or the high cost of ecological projects, as well as the introduction and certification of environmental management systems as some of the reasons why ecological strategies are not introduced. However, according to Izaguirre et al. (2005); the point in question is whether such costs can be balanced through the creation of higher and longer term profitability as a result of improved competitiveness.
- Inadequate regulation: several authors criticize the current regulations for their lack of flexibility in methodology and time allowed for adaptation, lack of information, and favouritism towards the adoption of control strategies over those of prevention. Not to mention the cost of certification and the lack of support and orientation (Hillary, 2003; Murillo et al., 2004)
- Shareholder pressure: there are authors who see pressure from this group as an obstacle because the ecological strategy can reduce an enterprise's profitability in the short term, and, therefore, investors' dividends (Izaguirre et al., 2005).
- Uncertainty: associated to a poor development of the environmental supply sector, which translates into a shortage of information about clean environmental technologies and an insufficient supply of machinery and equipment for the change, as well as scarcity in environmental assessors and consultancies (Murillo et al., 2004)

4.3 Competitive advantages derived from adopting an environmental strategy

Rivera and Molero, (2002) state that the high costs associated with environmentally-conscious activities and the little competitive advantages obtained can discourage enterprises from taking action. However, Ottman (1995) stated that the enterprises that target the ecologically aware consumer segment can take advantage of being the first to offer less contaminated products. Years later, Proto and Supino (1999) argued that the quality of the environmental information the enterprise reports about its activities might be its biggest source of competitive advantage when seeking to gain customer loyalty. Furthermore, Claver et al. (2004) state that cost savings from the reduced use of raw materials and energy and the improvement of productive processes can become competitive advantages for enterprises as well. Thus, these advantages can be distinguished into several classifications including: (Shrivastava, 1995a; Christmann, 2000):

- *Cost advantages*: Environmental practices can reduce the general costs of enterprises, as the correct arrangement and optimization of natural resources reduce the consumption of energy, water, raw materials and the exploitation and minimization of waste (Shrivastava, 1995b; Porter and Van der Linde, 1995). Christmann (2000: 668) says that integrating environmental practices before competitors or anticipating new regulations can contribute to cost advantages in three ways:

  1- Anticipation minimizes disruptions in the production process associated with the development and incorporation of required technologies;

  2- Enterprises that address environmental matters faster can obtain a competitive advantage as per the learning curve;

  3- Integration of environmental matters before the appearance of a compulsory regulation can influence the eventual development of a related legislation, thus providing an advantage to pioneering enterprises.

- *Advantages to differentiation*: Some specific practices contribute to the achievement of competitive advantages of differentiation, such as the result of redesigning containers and products in an environmentally respectful manner, developing new products and advertising the benefits derived from the change (Reinhardt, 1998; Peattie, 1997). This must be supported by the development of an image or marketing plan that assures the environmental characteristics of the product to the client (Carmona et al., 2003).

5. Conclusions

The objective of this article was to analyze the integration of the environmental variable in business strategy. The identification of the causes behind any strategic decision, like this one, is essential to be able to fully understand it. Using the contributions from the three viewpoints that have been studied, a theoretical synthesis has been provided to explain the distinct strategic behaviors of businesses with respect to environmental matters. Therefore, principle conclusions are:

- Organizational resources and capabilities reinforced by environmental analyses generate positive implications in business activities as a consequence of reduced costs or through an increase in the degree of differentiation in the organization.
- The degradation of the environment, rising customer demand for environmentally-friendly products, greater accessibility to information (including environmental), environmentally-conscious legislation, and rapid advances in technology all influence the adoption of CSR practices by enterprises looking to improve their reputations and prestige (Nieto y Fernández Gago, 2004).
- Environmental strategies, focused on pollution prevention, energy conservation, ecological product design, utilization of non-polluting technologies, waste reduction or recycling, and the use of recycled material lead to improvements in aspects as diverse as product quality, manufacturing cost reduction, or entrance into new markets (Claver, López, Molina y Zaragoza, 2004; Fraj y Matute, 2006; Martín Peña y Díaz, 2006).
- Due to the influence of a wide variety of factors including the effects of public and social interest, public administrations, and environmental legislation, competitive advantages, and even executive obligation, businesses are becoming more conscious of their environmental responsibilities, thus raising overall environmental awareness.
- By way of environmentally-conscious practices enterprises may achieve competitive advantages from cost savings, R&D investment, or the possibility of entering new markets. In short, the perception of these advantages is a determining factor in the acceptance and application of environmental strategies.
- Managerial obligation plays an important role in the process of adopting a more respectful attitude towards the environment (Aragón, Matías y Senise, 2004). The disposition of business executives to change existing practices is determined by and dependent upon the level of commitment they have to the cause (Rivera y

Molero, 2002). Therefore, the ideals, values, and even the lifestyle of executives have repercussions on the development of environmental strategies in a business.

- Internal barriers must be taken into account as the main obstacles to the adoption of environmental protection measures. However, if managers are aware of a barrier, whether external or internal, in the environmental strategy of the enterprise that appears to be an obstacle to progress, their perception will be negative when adopting environmental practices (Post and Altman, 1992; Izaguirre et al., 2005).

References

Alberti M, Caini L, Calabrese A, Rossi D. 2000. Evaluation of the costs and benefits of an environmental management system. International Journal of Production Research 38 (17): 4455-4466.

Amit R, Schoemaker PJ. 1993. Strategic assets and organizational rent. Strategic Management Journal 14: 33-46.

Angell LC, Klassen RD. 1999. Integrating environmental issues into the mainstream: an agenda for research in operations management. Journal of Operations Management 17 (5): 575-598.

Aragón JA. 1997. The measurement of the managerial strategy: Proposal and validation of a multi-items scale to measure the business strategy according to Miles and Show's Typology (1978). Business and Economic Science Journals 20 (31): 45-65.

Aragón JA, Sharma S. 2003. A contingent resource-based view of proactive corporate environmental strategy. Academy of Management Review 28 (1): 71-88.

Aragón JA, García VJ, Hurtado NE. 2005. An explanatory model of the advanced environmental strategies for small and medium size enterprises and its influence in the results. Cuadernos de Economía y Dirección de Empresas 25: 29-52.

Aragón JA, Matías F, Senise M. 2004. Managerial discretion and corporate commitment to the natural environment. Journal of Business Research 57: 964-975.

Azzone U et al. 1997. A stakeholders' view of environmental reporting. Long Range Planning 30 (5): 699-709.

Banerjee SB. 2001. Corporate Environmental Strategies and Actions. Management Decision 39 (1): 36-44.

Banerjee SB. 2002. Corporate Environmentalism. The construct and its Measurement. Journal of Business Review 55: 177-191.
Bansal P, Bogner WC. 2002. Deciding on ISO 14001: Economics, Institutions, and Context. Long Range Planning 31: 269-290.
Bansal P, Roth K. 2000. Why companies go green: a model of ecological responsiveness. Academy of Management Journal 43: 717-736.
Barney JB. 1991. Firm resources and sustained competitive advantaje. Journal of Management 17: 99-120.
Briones AJ, Laborda F. 2006. Medidas de excelencia empresarial: innovación, calidad y responsabilidad social corporativa. XVI Congreso nacional ACEDE, Septiembre, Valencia.
Brockmand B, Morgan F. 2003. The role of existing knowledge in new product innovativeness and performance. Decision Sciences 32 (2): 385-419.
Burguillo M, García M. 2005. La política de comercio internacional norte-sur y sus repercusiones sobre la sostenibilidad global. Economía Industrial 358: 161-172.
Buysee K, Verbeke A. 2003. Proactive environmental strategies: a stakeholder management perspective. Strategy Management Journal 24: 453-470.
Camisón C, Lapiedra R. 1999. Estrategias de cooperación verticales y sistemas de información inter-organizativos: análisis de la implantación del EDI en el caso de la industria europea automovilística. ESIC MARKET, Revista Internacional de Economía y Empresa 103 (mayo-agosto): 125-139.
Carmona E, Céspedes J, De Burgos J. 2003. Gestión ambiental y ventaja competitiva. El papel de las capacidades de prevención de la contaminación y la gestión de recursos humanos. Third Internacional Conference of the Iberoamerican Academy of Management; December. Sao Paulo: 1-37.
Céspedes J, Burgos J, Álvarez MJ. 2003. Stakeholders’ environmental influence. An empirical análisis in the Spanish hotel industry. Scandinavian Journal of Management 19: 333-358.
Christmann P. 2000. Effects of "Best practices" of environmental management on cost advantage: The role of complementary assets. Academy of Management Journal 43 (4): 663-680.

Claver E, López MD, Molina JF, Zaragoza P. 2004. La integración del capital medioambiental en el capital intelectual de la empresa. Revista de Economía y Empresa 21 (50): 11-28.

Claver E, López MD, Molina JF, Zaragoza P. 2006. Identificación y evaluación de los recursos y capacidades organizativos para el desarrollo de la gestión medioambiental en la empresa. XVI Congreso nacional ACEDE, Septiembre. Valencia.

Collins L, Usher S. 2004. Project PASCALEA- public and stakeholder consultation in developing high-profile corporate environmental strategy. Corporate Social Responsibility and Environmental Management 11: 95-102.

Cruz S, Úbeda JE, Llimiñana, J. 2005. Principales motivos que conducen a la implantación de un sistema de gestión de la calidad y principios que subyacen. In: Matorell O, editor. Decisiones basadas en el conocimiento y en el papel social de la empresa. A Coruña: AEDEM. p 713-728.

De la Cuesta M, Valor C. 2003. Responsabilidad Social de la empresa. Concepto, medición y desarrollo en España. Boletín Económico ICE 2755: 7-19.

Del Brío JA, Junquera B. 2001. Factores inductores del comportamiento medioambiental en las empresas industriales españolas. Revista de Economía y Empresa XV (41): 75-96.

Del Brío JA, Junquera B. 2003. A review of the literature on environmental innovation management in SMEs: implications for public policies. Technovation 23: 939-948.

Del Brío JA, Fernández E, Junquera B. 2005. Dificultad de imitación de las capacidades medioambientales y ventaja competitiva: un estudio empírico. Revista Europea de Dirección y Economía de la Empresa 14 (4): 59-80.

Delmas M. 2002. The diffusion of environmental management standards in Europe and the United States: an institutional perspective. Policy Sciences 35: 91-119.

Delmas M, Toffel MW. 2004. Stakeholders and environmental management practices: an institutional framework. Business Strategy and the Environment 13 (4): 209-222.

Eisenhardt K, Martin J. 2000. Dynamic capabilities: what are they? Strategy Management Journal 21 (10-11): 1105-1121.

Fineman S. 1997. Constructing the Green Manager. British Journal of Management 8: 31-38.

Fiol CM, Lyles MA. 1985. Organizacional learning. Academy of Management Review 30 (6): 803-813.

Fraj E, Matute J. 2006. El Medio Ambiente como elemento clave en las estrategias corporativas y de marketing de las empresas. XVI Congreso nacional ACEDE, Septiembre. Valencia.

Gallego I. 2006. The use of economic, social and environmental indicators as a measure of sustainable development in Spain. Corporate Social Responsibility and Environmental Management 13: 78-97.

García-González A, Boria S. 2006. Gestión medioambiental, una modalidad de Responsabilidad Social Corporativa. XVI Congreso Nacional ACEDE, Septiembre. Valencia.

Garrod B. 1997. Business strategies, globalization and environment. In: Globalization and Environment. Paris: OECD. p 269-314.

Garrod B, Chadwick P. 1996. Environmental Management and Business strategy: towards a new strategic paradigm. Futures 28 (1): 37-50.

Gladwin TN, Kennelly JJ, Krause TS. 1995. Shifting paradigms for sustainable development: implication for management theory and research. Academy of Managemet Review 20 (4): 874-907.

Grant RM. 1991. The resource-based theory of competitive advantage: implications for strategy formulation. California Management Review 33 (3): 114-135.

González-Benito J, González-Benito O. 2005. A study of motivations for the environmental transformation of companies". Industrial Marketing Management 34: 462-475.

Hamel G. 1999. Un nuevo reto: cambiar las reglas del juego. Harvard Deusto Business Review 90: 4-12.

Hart SL. 1995. A natural-resource-based view of the firm. Academy of Management Review 75 (1): 66-76.

Henriques I, Sadorsky P. 1999. The relationship between environmental commitment and managerial perceptions of "stakeholder" importance. Academy of Management Journal 42 (1): 87-99.

Hillary R. 2003. Environmental management system and the smaller enterprise. Journal of Cleaner Production 20: 1-9.

Izaguirre J, Vicente A, Tamayo U. 2005. Medio ambiente y competitividad ¿obstáculo u oportunidad? Una aproximación a partir de la evidencia empírica. XIX Congreso anual y XV Congreso Hispano-Francés de AEDEM, 2005 Jun 8-10; Spain. Victoria-Sasteiz.

Jennings T. Zandbergen, A. 1995. Ecologically sustainable organizations: an institutional approach. Academy of Mangement Review 20 (4): 1015-1052.

Jones TM. 1995. Instrumental stakeholder theory: A synthesis of ethics and economics. Academy of Management Review 20 (2): 404-437.

Judge WQ, Douglas TJ. 1998. Strategic assets Performance implications of incorporating natural environmental issues into the strategic planning process: An empirical assessment. Journal of Management Studies 35 (2): 241-262.

Klassen RD, Vachon S. 2003. Collaboration and evaluation in the supply chain: the impact on plant-level environmental investment. Production and Operations Management 12 (3): 336-352.

Marín JL, Rubio A, Aragón A. 2004. La responsabilidad social corporativa en la empresa: un estudio bajo la perspectiva de recursos y capacidades. XIV Congreso anual ACEDE; 2004 Sep 21-22. Murcia.

Martín ML, Díaz E. 2006. La dirección de empresas ante el Medio Ambiente: actitud y actuación medioambiental. XVI Congreso nacional ACEDE, 2006 Sep 22-24. Valencia.

Moreno M, Vargas A. 2004. La visión de la organización basada en el conocimiento: análisis de un caso en la administración pública española. XVIII Congreso Anual de AEDEM, Junio. Orense.

Murillo J. 2007. Análisis multiteórico de la estrategia medioambiental de la empresa. In: Ayala JC, coord. Conocimiento, innovación y emprendedores: camino al futuro. FEDRA. p 2714-2727.

Murillo JL, Garcés C, Rivera P. 2004. Estrategia empresarial y medio ambiente: opinión de un grupo de expertos. Universia Business Review 4T: 52-63.

Nieto M, Fernández R. 2004. Responsabilidad Social Corporativa: la última innovación en management. Universia Business Review 1T: 28-39.

Nieto M, Quevedo P. 2005. Variables estructurales, capacidad de absorción y esfuerzo innovador en las empresas manufactureras españolas. Revista Europea de Dirección y Economía de la Empresa 14 (1): 25-44.

Noci G, Verganti R. 1999. Managing green product innovation in small firms. R&D Management 29 (1): 3-15.

Ottman JA. 1995. Green Marketing. Challenges and Opportunities for the New Marketing Age. Chicago: NTC Business Books.

Peattie K. 1997. Environment marketing. In Bansal P, Howard E, editors. Business and the Natural Environment. Oxford: Butterworth-Heineman. p 195-220.

Porter M, Van der Linde C. 1995. Green and competitive: ending the stalemate. Harvard Business Review 73 (5): 120-134.

Post JA, Altman BW. 1992. Models of corporate greening: How corporate social policy and organizational learning inform leading-edge environmental management. Research in Corporate Social Performance and Policy 13: 3-30.

Prahalad CK, Hamel G. 1990. The core competence of the corporation. Harvard Business Review, mayo-junio: 79-91.

Proto M, Supino S. 1999. The quality of environmental information: a new tool in achieving customer loyalty. Total Quality Management 10 (4-5): 679-683.

Reinhardt FL. 1998. Environmental product differentiation: Implications for corporate strategy. California Management Review 40 (4): 43-73.

Rivera J, Molero V. 2002. The implementation of green marketing in Europe: a model and empirical research. 2002 AMS Conference.

Rugman A, Verbeke A. 2000. Six cases of corporate strategic responses to environmental regulation. European Management Journal 18 (4): 377-385.

Russo M, Fouts PA. 1997. A resource based perspective on corporate environmental performance and profitability. Academy of Management Journal 40 (3): 534-559.

Sharma S. 2000. Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. Academy of Management Journal 43 (4): 681-697.

Sharma S, Henriques I. 2005. Stakeholder influences on sustainability practices in the Canadian forest products industry. Strategic Management Journal 26: 159-180.

Sharma S, Vredenburg H. 1998. Proactive corporate environmental strategy and the development of competitively valuable organisational capabilities. Strategic Management Journal 19: 729-753.

Shrivastava P. 1995a. Environmental technologies and competitive advantage. Strategic Management Journal 16: 183-200.

Shrivastava P. 1995b. The role of corporations in achieving ecological sustainability. Academy of Management Review 20 (4): 936-960.

Snell SA et al. 1996. Establishing a framework for research in strategic human resource management: Merging resource theory and organizational learning. Research in Personnel and Human Resource Management 14: 61-90.

Teece DJ, Pisano G, Shuen A. 1997. Dynamic capabilities and strategic management. Strategic Management Journal 18 (7): 509-533.

Venkatraman N, Ramanujan V. 1986. Measurement of business performance in strategy research: a comparison of approaches. Academy of Management Review 11: 801-814.

Vicente MA, Ruiz M. 2002. Factores determinantes de la integración de la variable medio ambiente en los planteamientos de la economía de la empresa y el marketing. Cuadernos de Gestión 1 (2): 71-84.

Wernerfelt B. 1984. A resource based view of the firm. Strategic Management Journal 5: 171-180.

Wood DJ. 1991. Toward improving corporate social performance-building (the good society). Business Horizons 34 (4): 66-73.

Young W, Tiller F. 2006. Can business move beyond efficiency? The shift toward effectiveness and equity in the corporate sustainability debate. Business Strategy and the Environment 15 (6): 402-415.