Natural environment and business reality: what encourages companies to take an action?

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Abstract: The present study examines the environment as a social issue that is conditioned by economic activities in a transcendental way. In this sense, maintaining a continued economic development would only be possible with the active participation of its main agents: the business companies. This study aims at revising the most important factors in the environmental compromise of companies and the most relevant studies on this topic found in business literature.

Keywords: competitive advantage; corporate environmental management; environmental consciousness; environmental policy; stakeholders; sustainable development.

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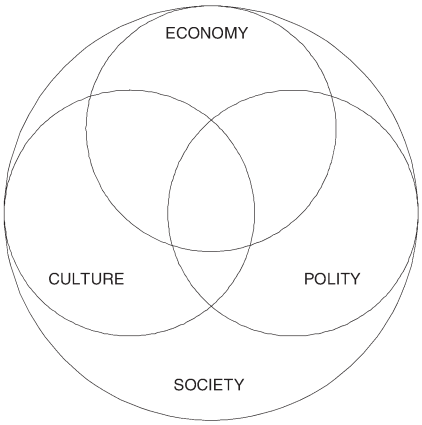
1 The environment from a social and business perspective

According to Jones (1983), the field of study which comprises business and society is defined by the intersection of the political and economic systems, the cultural and economic system or by the combination of all of them (Figure 1). Actually, the main object of analysis is based on the tensions that arise from these interactions and the methods designed to treat them.

Figure 1 Society and companies



Source: Jones (1983, p.560).

The economic subsystem is shaped by the agents involved in production and economic transactions; the political system is composed of the legislative, executive and judiciary powers of each nation or group of nations, and the cultural subsystem comprises religion, the family, the intellectual life and the value system prevailing in the milieu considered.

Business intervention in social issues has resulted in a controversial debate where arguments in favour and against are profusely found. In this sense, the enumeration made by Davis (1973) is, despite the time elapsed, still valid. The main arguments that defend corporate social action could be classified in two distinct categories. First, these actions could have an impact on the improvement of the companies' social acceptance, adaptation to future environmental laws and the elimination of potential problems of important economic consequences. Apart from these advantages, there exists a need of business organisations to take part in society as active members, thus compromising resources that could result essential in facing certain critical situations which do not occur in other public institutions.

The arguments against also present a double perspective. It can be said that social actions of a company could originate more costs than benefits, something which would be against the fundamental interest of any company i.e. to make profits, and which would also be difficult to justify to shareholders. On the other hand, the companies' intervention may not be relevant in solving social problems or even desirable by other members of society which could consider it an interference of business organisations.

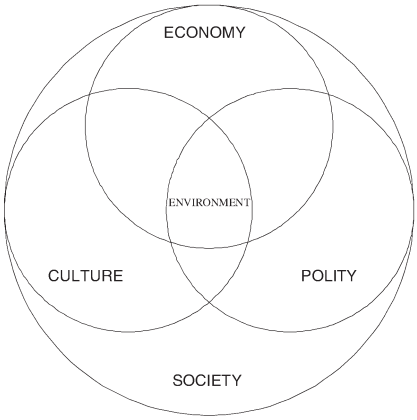
The literature on the relationships between business activities and society shows a double profile that should be reformulated in view of its integration (Swanson, 1999). In one extreme we find the normative stream of thought of business ethics analysts, aimed at defining what companies should or should not do for social well being (Buchholz, 1989; Frederick, 1986; Wood, 1991). At the other extreme, business management theorists, who adopt a more positive position while attempting to define what a company can do in relation to social issues (Agle et al., 1999; Aupperle et al., 1985; Waddock and Graves, 1997). While in the first case moral evaluation, judgment and prescription of human actions play a predominant role, in the second case the objective is to seek explanations,

measures and predictions, assuming that observable casual relations exist which allow intervention in order to accomplish certain objectives such as the maximisation of profits (Treviño and Weaver, 1994).

When approaching the issue of the environment, one must bear in mind that it pertains to a field defined by business and society. First of all, economic activities consume natural resources, at times non-renewable resources, and generate waste material that substantially modify the quality of the environment. Additionally, governments and public institutions get involved in this issue by generating legislative norms that regulate the agents involved in the environment, thus acting as guards and guarantors of their compliance by means of sanctions. To these regulations, other non-regulatory measures are added, aimed at an increased awareness of the environment or at the promotion of research of natural surroundings. Finally, environmental matters have a higher and higher position in the dominant value system of all developed societies, hence their defence and conservation often cause social reactions. Among these we can find non-governmental organisations in defence of the environment or the modification of particular behaviours which may lead to a change in determined purchase and consumption habits in favour of those goods that show a higher consideration for the environment.

It can therefore be stated that the environment is the central issue in the scheme displayed in Figure 2. From the business point of view, this study analyses the necessities and expectations that the environment generates.

Figure 2 Analytical positioning of the environment in Jones model



2 Factors that drive corporate environmental management

Nowadays it is possible to find companies with a higher or lower degree of commitment to environmental issues. While some companies simply opt for the compliance with current legislation and existing social expectations, other companies prefer a policy that clearly surpasses these minima. According to Kleiner:

> "today a company does not expect to be considered environmentalist unless it is moving not only beyond the law but ahead of its industry and many of its consumers." (1991: p.38)

The size of a company and the industrial sector to which it pertains, can condition the taking of decisions related to the environment (Reichert et al., 2000), and even its nationality can constitute a differentiating element in this sense (Peattie and Ringler, 1994; Steger, 2000). Despite these determining elements, there are other different factors that justify the interest of companies to improve their commitment to the environment (Bansal and Roth, 2000; Greeno and Robinson, 1992; De Young, 2000). Among these: government intervention; stakeholder pressure; taking advantage of economic opportunities and obtaining competitive advantages; and finally, personal motivations of business managers.

2.1 Government intervention

Direct regulation is probably most often a means used by the government to protect the environment. Its implementation consists in defining the environmental behaviour of individuals or institutions in the laws. This regulation can be brought about by means of specifying the technological standards that ought to be adopted, or by establishing standards of operation that set concrete objectives of environmental quality while allowing companies to implement measures and technologies to achieve that objective.

For companies complying with legal requirements, which are more and more demanding of environmental protection, constitutes a reason of recognised importance in favour of a greater commitment to the environment (Lampe et al., 1991). The non-compliance of these laws would imply subsequent economic sanctions or even the closing of the businesses. Attempting to maintain the present *status quo* of business organisations in relation to a change in environmental norms could originate profound structural modifications and new operational practices in companies, which at the same time could shed light on potential profits and generate a change in the attitude to the environment (King, 2000).

Some empirical studies, such as the one undertaken by Henriques and Sadorsky (1996), conclude that government regulations are the most important source of pressure in business organisations, at the moment, of taking into consideration environmental issues. Its importance is such that it has been considered as a competitive force to be added to Porter's model (Rugman and Verbeke, 2000). Also taking into consideration the issue of environmental regulations, the study of Dean and Brown (1995) analyses the dissuasive effect that a legislation of this kind could have on the access of new companies into a specific industry, which implies an element of protection for companies already installed and adapted to the established requirements. Likewise, Nehrt (1998) and Hitchens et al. (2000) analyse the situation of relative competition among companies confronted with different national legislations.

Despite a certain degree of success, direct regulation has been strongly criticised. On the one hand, an inconvenience arises with regard to system costs and control activities. Besides, the existing norms are too general and treat all agents equally, independently of costs. It has also been shown that the determination of environmental standards by normative means turns those minima into a priority well above the adoption of other measures that could be more effective in the natural surroundings. In short, although a regulation emerges as a means, it finally ends up becoming a goal in itself (Tenbrunsel et al., 2000).

Compared to direct regulation, governments can resort to economic instruments to condition the behaviour of companies to environmental issues. These incentives grant firms a greater freedom to adapt themselves to the new situation, as they will perform an individualised analysis of profits and costs that this behaviour will produce, opting for the solution of greatest economic efficiency. Moreover, in contrast to what happened with direct regulation, economic advantages brought about by more developed technological innovations, from an ecological point of view, constitute a more evident stimulus for these to be promoted.

Various classifications can be made within the category of economic instruments of environmental policy (Post, 1994). The main categories are:

- reimbursable monetary deposits that facilitate the recuperation and adequate treatment of certain goods
- taxes that internalise the externalities produced by injurious environmental business behaviours
- state subsidies that promote ecologically desirable behaviours
- transferable emission permits according to the environmental quality standards that want to be achieved.

In addition to direct regulation and economic instruments, there are two other types of intervention within the frame of a specific government policy: direct public investment and voluntary mechanisms. The first consists in providing public funds to projects for the defence and the improvement of the environment. It is interesting to point out that voluntary mechanisms can be encouraged through information campaigns and awareness processes, making it possible to modify the behaviour of companies and individuals towards the environment without having to resort to the enforcement of the law or to economic incentives.

2.2 Influence of other stakeholders

Different stakeholders increasingly demand companies to report on their environmental actions, which will generalise the diffusion this type of information in the short run (Stray and Ballantine, 2000). Besides, a greater activism against irresponsible environmental actions is considered (Dechant and Altman, 1994). It is the pressure of the firm's stakeholders that often justifies the reaction of companies, because if no external motivation existed or nobody from inside the firm perceived the necessity or interest to approach the issue, nothing would seem to substantiate a movement in this respect.

If a stakeholder is defined as 'any group or individual who can affect or is affected by the achievement of the firm's objectives' (Freeman, 1984: p.25), there are virtually no limits to this definition. According to this, companies could not process all the information necessary to be able to take decisions with respect to stakeholders (Marcoux, 1998). Each individual or group can affect or be affected by very different reasons to a greater or lesser degree. Therefore, it seems logical to narrow down the subject of analysis to a specific topic and from there, to determine the interest or concrete stake of each stakeholder.

Although different environmental issues can imply different stakeholders, they cannot be exclusively geared at a concrete group. In the case of environmental issues, it is

possible to find authors that opt for a wide consideration of the stakeholders interests (Polonsky, 1995; Rodriguez and Ricart, 1997) or for a narrower vision (Henriques and Sadorsky, 1999). Even though the government probably constitutes the most valued stakeholder in relative terms (Henriques and Sadorsky, 1996), it is usual to grant more or less importance to these other agents: owners, employees, clients, suppliers, business associations, ecological groups, mass media, local community and global community, future generations.

2.3 Economic incentives

To pursue objectives such as the compliance with environmental norms or anticipation of new legal regulations, as well as the correct management of stakeholders' demands, can result in competitive advantages for companies. Additionally, accomplishing these advantages can constitute an important reason to restate corporate environmental management and to intensify environmental actions. Nevertheless, this framing approach has not been the predominant one in the past. It was usual to consider all expenditures in favour of the environment as reduction of the company's profit or competitiveness, since they implied a deviation of the available resources towards activities that did not contribute to an explicit income (Walley and Whitehead, 1994).

Among the first studies that defended the existence of certain compatibilities between profit and pollution-control activities is that of Bragdon and Marlin (1972). These authors evidenced the presence of a vicious circle in the process. On the one hand, these actions could help to reduce costs and increase profits; on the other hand, companies that made profits have the necessary resources to invest in improving their environmental management policies and to incorporate environmentally friendly new technologies in the production processes.

Porter and Van der Linde say that we find ourselves in a transitional stage of industrial history; with little experience in approaching environmental issues in a creative manner.

> "Managers must start to recognize environmental improvement as an economic and competitive opportunity, not as an annoying cost or an inevitable threat." (Porter and Van der Linde, 1995: p.130)

They consider pollution, in the majority of cases, as a form of economic squandering and classify profitable effects derived from improvement in environmental management in two groups. First, those related to the process: savings of materials due to recycling, lower consumption of energy during the process of production, elimination or reduction of the costs of activities related to waste manipulation, transport and elimination, etc. Second, those related to the product: higher quality, safer products, lower manufacturing and packaging costs, easier and cheaper waste disposal, etc.

Shrivastava (1995b) maintains that technologies that contribute to protect the environment could create a series of competitive advantages for companies that develop and use them. These advantages stem, among other reasons, from costs reduction, access to new markets, reinforcement of relations with suppliers, improvement of product quality and public image of the company or reduction of possible future responsibilities, as well as the capacity to influence in the elaboration of future environmental laws. Regarding the prompt adoption of these technologies certain obstacles hinder its implementation, such as the cost of developing solutions, the lack of know-how and environmental information,

the organisational inertia (in the case this practice has not been common in the past), and finally, the presence of contradictory regulations.

Among other studies that also defend a positive relation between environmental actions and economic results are those by Kleiner (1991), Biddle (1993), Azzone and Bertelè (1994) and Singh (2000). Similar to the above is also the research field proposed by Hart (1995), in which a natural-resource-based view of the firm is presented. This theory of competitive advantage is based on the resource-based theory and the firm's relationship to the natural environment. To a greater or lesser degree, the same point of view is adopted in the studies of Shrivastava (1995a), Russo and Fouts (1997), Rugman and Verbeke (1998, 2000), Judge and Douglas (1998), Sharma and Vredenburg (1998) and Christmann (2000).

The number of empirical studies that have attempted to demonstrate the effect of adopting of corporate environmental actions on the economic indicators of a company is still relatively small as to be able to reach any definitive conclusion. Among these studies, those presented in Table 1 stand out.

2.4 Personal motivations of business managers

The environmental action of the company is often the result of the personal commitment displayed by managers dealing with this subject. The protection and conservation of the natural surroundings can be part of the personal value system of managers; therefore, the fact that it is simply what needs to be done can serve as the argument to adopt an environmentally responsible behaviour by the firm (Lampe et al., 1991).

The motivation derived from personal values will be what determines individual behaviour. Talking about managers, due to their capacity to direct (or not) the company towards environmental commitment, their values will affect corporate environmental performance. The commitment and personal identification of managers with local ecosystems and their direct contact with the natural surroundings allow a greater awareness of the reciprocal process which exists between the environment and a company (Whiteman and Cooper, 2000).

Andersson and Bateman (2000) studied the process by which certain people, called 'champions', showed leadership in the implementation of environmental actions in a company. The activities related to this process were the identification of environmental issues, their adequate characterisation in terms of opportunity, urgency and impact, as well as their ways of presenting or 'selling' their ideas in a persuasive manner to those having a decision-making capacity in the company. The success of these actions, together with contextual factors, such as the legal requirements or competitive pressures, will translate into calling the attention of top managers and the allocation of time and money to this issue.

The importance of personal motivation is also evidenced in the study of Sharma (2000). Among his conclusions, the existence of a positive relationship between the interpretation of environmental issues as opportunities and the adoption of voluntary strategies for environmental preservation, which goes beyond compliance with the laws or industry standards, stand out. On the contrary, a conformist environmental strategy would be promoted by those managers who consider environmental issues as threats instead of as opportunities. Although based on economic and not ethical incentives, in both cases it is personal motivation that affects corporate environmental action.

Table 1 Economic consequences of corporate environmental management

Author	*Sample*	*Results*
Spicer 1978	17 American firms in the pulp and paper industry.	A statistically significant association between the indicators of pollution-control and certain economic indicators was found. In concrete, the companies with better pollution-control records tended to have higher profitability, larger asset size, lower risk and higher price/earning ratios, than companies with poorer pollution-control
Chen and Metcalf 1980	17 American firms in the pulp and paper industry (same as that of Spicer, 1978).	It could not be stated that investors were indifferent to corporate social performance but their primary concern was the return on the investment. While pollution-control was enough as to not affect the earnings of the firm, the investors did not show a special interest in it. Any negative effect of pollution-control performance on financial indicators was confined to firms with poor pollution control records.
Shane and Spicer 1983	72 American companies in several industries (pulp and paper; electric power; iron and steel; petroleum) whose pollution-control records and costs of abatement had been studied by the Council on Economic Priorities (CEP) in the period 1972–1977.	Returns for companies with low pollution-control performance rankings were more negative than in the case of companies with high rankings. Investors used the information released by the CEP to discriminate between companies.
Stevens 1984	54 American firms in four industries (pulp and paper, petroleum, steel and electrical utilities) subjects of CEP reports in the period 1972–1977.	The information compiled and diffused by an independent research institution (CEP) in relation to a company's pollution-control records was used by investors, and consequently, determined the price of its shares.
Hamilton 1995	436 American firms included in the database called the Toxics Release Inventory (TRI) of 1989 elaborated by the Environmental Protection Agency (EPA).	Stockholders in firms reporting TRI pollution figures experienced negative, statistically significant abnormal returns upon the first release of the information.

Table 1 Economic consequences of corporate environmental management (continued)

Author	*Sample*	*Results*
Hart and Ahuja 1996	127 firms involved in manufacturing, mining or production of some kind (SIC codes below 5000) drawn from the Standard and Poor's 500.	Efforts to reduce emissions through pollution prevention appeared to drop to the bottom line within one to two years alter initiation. Operating performance (ROS, ROA) was significantly benefited in the following year, whereas it took about two years before financial performance (ROE) was affected.
Klassen and McLaughlin 1996	96 American firms with positive environmental news during 1985–1991 and 16 with negative news during 1989–1990 according to the database NEXIS.	Significant positive abnormal stock returns were documented following positive environmental events. Significant negative returns were documented for environmental crises. The results concluded that there was a causal link between environmental and perceived future financial performance.
Russo and Fouts 1997	Final sample of 243 firms assigned environmental ratings by the Franklin Research and Development Corporation (FRDC) in 1991 and 1992.	High levels of environmental performance (compliance records, expenditures, and other initiatives used to meet new demands, to reduce waste and to support environmental protection organisations) were associated with enhanced profitability (ROA). The greater the industry growth, the greater the positive impact of environmental performance on firm profitability.
Judge and Douglas 1998	196 environmental executives from US-based firms selected from the 1992 World Environmental Directory's listing of corporate environmental officers.	The level of integration of environmental management concerns in the strategic planning process was positively related to financial and environmental performance.
Sharma and Vredenburg 1998	Seven companies in the Canadian oil and gas industry.	Evidence of the development of a capability for stakeholder integration, a capability for higher-order learning, and a capability for continuous innovation in firms labelled as having proactive environmental strategies was found. These capabilities appeared to account for more than 50% of the firms' self-reported variance in competitive benefits.

Table 1 Economic consequences of corporate environmental management (continued)

Author	*Sample*	*Results*
Berman et al. 1999	81 firms from the top 100 USA firms on the 1996 Fortune 500 list.	According to data from the Kinder, Lydenberg, Domini and Company (KLD) Socrates database, the natural environment failed to exhibit statistically significant impacts on firm financial performance.
Stanwick and Stanwick 2000	469 firms listed in the 1994 Forbes 500.	Firms classified as high financial performers had higher incidents of environmental policies and/or descriptions of environmental commitment than firms classified as low performers. However, medium performing firms had the highest levels of environmental commitments.
Gilley et al. 2000	71 announcements of corporate environmental initiatives published in the Wall Street Journal over the period 1983 through 1996.	An overall effect of announcing environmental initiatives on stock returns was not found. However, reactions to product-driven initiatives were significantly different than reactions to process-driven ones, probably because the latter showed a greater effect on the firm's perceived reputation by stakeholders.
Christmann 2000	88 business units of chemical companies operating in the USA listed in the 1995 Ward's Business Directory.	The use of pollution prevention technologies and early timing of environmental strategies did not significantly contribute to cost advantage. Firms needed to possess complementary assets in order to create cost advantage from the implementation of such practices. Firms with high levels of complementary assets gain larger cost advantage from the use of pollution prevention technologies, from the innovation of proprietary pollution prevention technologies and from early timing of environmental strategies, compared to firms with low levels of complementary assets.

3 Discussion

The environment as a common good is an issue subject to continuous debate. Important advances were made in recognising the intrinsic value of the natural surroundings during the second half of the 20th century, and its submission to human interests is still generally accepted. Nevertheless, it is complicated to establish reasonable norms of behaviour to preserve the right that all inhabitants of the earth have to enjoy natural resources. In this sense, industrial activity becomes the most noxious element for the environment and its behaviour subject to an increasingly strict evaluation.

The relationship between the economic subsystem and the world ecosystem, by which the former uses the latter as source of resources and energy as well as waste recipient, poses continuity problems. While the dimensions of the economic subsystem keep expanding, the natural ecosystem is finite and starts showing difficulties in holding the present economic processes. The situation is so acute that there are some that even claim that growing limits have been reached and in the case that the present trend continues, world collapse will be practically unavoidable (Goodland, 1991; Meadows et al., 1992).

The issue is trying to make economic growth and ecologic growth compatible in such a way that the former does not destroy the latter. Based on these ideas the concept of 'sustainable development' came up some time ago, and was made popular by the Brundtland Commission in1987, which defined it as: 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987: p.43).

If sustainable development becomes one of the main corporate objectives (Rondinelli and Berry, 2000) or is taken as the minimum imposition included in the rules which control economic practice (DesJardins, 1998), a deep and thorough transformation of management research and theory practices will be needed (Gladwin et al., 1995; Shrivastava 1995a).

Even though important advances have been made in this direction, corporations, whose activities seem to have closer and more tangible objectives, do not consider sustainable development as a goal in itself. Observing business practices allows explaining how the environment affects decision-taking processes. On the one hand, the interrelation established between a company and its stakeholders should be the essential and adequate response to their environmental interests, necessary for the company's success. Among these stakeholders, the government is the most relevant one, because of its normative capacity, which causes significant changes in the way companies have to compete. On the other hand, environmental management can be considered a source of real economic opportunities and important competitive advantages. The perception of a reality is what definitely determines how to react. Thus, the personal attitude of managers towards the environment will constitute a significant element when assessing corporate environmental decisions.

Economic development, as understood in the past, is unacceptable today and changes in business attitudes are needed to guarantee sustainable development. In conclusion, stemming from a social, cultural and political movement, the rules of business have drastically changed.

In any case, in spite of corporate efforts to reduce environmental impact, sustainable development will be an unreachable objective unless excessive consumerism and overpopulation are dealt with (Starik and Rands, 1995).

4 Conclusion and suggestions for future work

The theories indicated in this article help to identify how environmental corporate management can be analysed in a practical way. Sustainable development, stated as the ultimate objective to be reached by means of a profound restructuring of the present economic system, has to be substituted by other interests, closer to corporate reality. Thus, the following research fields could de defined.

4.1 Environmental policy

Government intervention to protect the environment can be justified from the economic point of view as the environment is a common good which receives negative external influences. As there are different ways of intervening – direct regulation, economic instruments and voluntary measures – it is necessary to know the relative efficiency of each of them.

Since environmental problems are often international and the economy is more and more global, these analyses should be done at a supranational level. In Europe, in particular, these protective environmental measures have to be perfectly coordinated and the European Union has to ensure that they are observed.

4.2 Stakeholders theory

The stakeholders theory has served to deal with the issue of corporate responsibility in a more practical way. To a lesser extent this theory has also been applied to the field of environmental responsibility. Nevertheless, and depending on the specific subject being treated, more individual knowledge of the stakeholders stance is necessary. Stakeholders attributes (power, legitimacy, urgency and salience according to Agle et al., 1999) can vary depending on the subject being dealt with. Only after the stakeholders' power to impose their environmental interests, their legitimacy to do so and the urgency they require, are defined will it be possible for corporations to determine their salience and to take the appropriate environmental measures.

4.3 Competitive analysis and economic efficiency

The economic advantages derived from a greater corporate environmental compromise can result in cost reductions and sales increase. Even though there are quite a few studies on this subject, it is still necessary to define even more the relationship between environmental practices and benefits, as this would constitute one of the main stimuli in favour of the environment.

From a strategic point of view the environment will be, without a doubt, an important source of competitive advantages and should be studied as a differentiating element among corporations. Corporations capable of developing valid environmental resources and capacities which cannot be easily copied by competitors, will occupy a leading position, sustainable in time. Therefore, there is still a long way to go in the study of the origin and development of natural resources as a competitive instrument.

4.4 Personal motivations

Managers' personal commitment to the environment can be very important in defining their corporation environmental commitment. This field of research will be based on psychology and sociology to better understand managers' behaviour. The position of the environment in the set of values of those with decision taking capacities or the position it occupies in the dominant corporate culture should be studied closer. This is particularly relevant when dealing with companies present in different countries where it is possible to compare environmental practices adopted in different social milieus.

Even though this paper has analysed the elements that can cause lesser or greater corporate environmental commitment separately, a global perspective of the problem should be kept in mind. Future studies could simultaneously deal with several of the analysis elements presented here and discover possible relations relevant to the theoretical and practical knowledge of corporate environmental management.

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