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***Sustainability as a Major Source of Competitive Advantage  
for Small and Medium Sized Enterprises***

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# **SUSTAINABILITY AS A MAJOR SOURCE OF COMPETITIVE ADVANTAGE FOR SMALL AND MEDIUM SIZED ENTERPRISES**

## **INTRODUCTION**

While sustainable development is recognized as an essential requirement for achieving economic goals without degrading the environment, major problems arise in implementing the concept of sustainability. At the most basic level, researchers dealing with sustainable development have suggested that the achievement of sustainability requires ecologically sustainable political and economic systems, organizations, and individuals (*e.g.*, Starik and Rands 1995; Costanza and Daly; Gallup International Institute 1992). Specifically, governments, consumers, and enterprises contribute and play crucial roles in reaching sustainable development. As a result, if goals of sustainability are to be achieved, small and medium-sized enterprises must be reformed to minimize their negative ecological and social impacts (Gladwin, 1992). It appears, therefore, inevitable that enterprises will be constrained by and dependent upon nature and social aspects.

Generally speaking, there has been an active debate among management researchers and practitioners concerning the relationship between sustainable development and competitiveness. The prevailing view is that the goals of business and sustainability seem hopelessly irreconcilable, as being sustainable implies additional costs for enterprises (*e.g.*, investments for prevention of negative ecological impacts and cleanup) and a loss of competitiveness. Recently, however, a new perspective has emerged in the literature on management by which sustainable enterprises could also achieve important benefits such as ecological efficiency cost reductions, capturing emerging green markets, gaining first-mover advantage in their industries, establishing better community relations, and improving their image.

This paper reviews the existing literature on sustainable management with a view to identifying the implications of sustainability for small and medium-sized enterprises. Major costs and benefits of implementing sustainable business strategies are described and sustainability as a source of competitive advantage is examined.

## CONCEPTUAL APPROACH TO COMPETITIVE ADVANTAGE

A particular organization has *competitive advantage* when it achieves a higher return on investment than its competitors, or it is able to do so (Grant, 1996). Therefore, in order to have competitive advantage organizations must have the ability to obtain higher profit margins than other companies in the industry. Organizations with competitive advantage, however, might show not the highest profit rate. For example, competitive organizations might prefer, for one or another reason, to sell their products and services at a lower price than the maximum price it could mark.

Two major types of competitive advantage can be enjoyed by organizations (Porter, 1985): *cost advantage*, which is the result of supplying similar products and/or services to low prices; and *differentiation advantage*, which comes from offering differentiated products and/or services to customers, who, in turn, are ready to pay an additional price which overcomes the additional differentiation costs. While the cost advantage position implies to have the lowest costs in the industry, differentiation advantage refers to offering something unique which is valued by customers.

Competitive advantage can derive from one or more factors or sources. Firstly, literature on strategic management suggests the following major sources of cost advantage (*e.g.*, Porter, 1985; Grant, 1996): scale economies, learning economies, production capacity management, product design, cost of inputs, process technology, and management efficiency.

Secondly, sources of differentiation advantage include tangible and intangible aspects which are significantly valued by potential customers as to be ready to pay an additional price for them (*e.g.*, Porter, 1985; Grant, 1996); tangible aspects refer to observable characteristics of the products and services, their performance, and complementary products and services; intangible aspects, in turn, include social, emotional, psychological and aesthetic considerations which are present in any choice of products and services.

Recently, a major theoretical framework has been developed in strategic management

literature which seems to be particularly appropriate for identifying the characteristics that a particular resource or capability must show in order to be a major source of competitive advantage. This theoretical framework is *the resource-based view of the firm theory* and it will be discussed next.

### **Resource-based theory of the firm**

This theory represents an emerging theoretical framework which is being used by researchers on strategic management, economics, and industrial organization (Mahoney and Pandian, 1992; Barney, 1992). With regard to strategic management, resource-based theory provides a model of how firms compete and achieve competitive advantages. Specifically, two primary assumptions of this theory are that (Barney, 1991): a) organizations competing in the same industry might be heterogeneous across the strategic resources and capabilities that they control, and b) these resources and capabilities might be not perfectly mobile and, thus, heterogeneity might be long-lasting.

These two hypotheses are used by this theory in determining sources of competitive advantages, thereby completing the traditional strategic management analysis, which is particularly concerned with identifying opportunities and threats (*e.g.*, Barney, 1991, 1992). According to Schulze (1994), in addition to these hypotheses, the resource-based view of the firm also assumes that resources and capabilities are determinants of organizational performance, meaning that for a particular organization to maximize its performance, the organization must either own or control the resources and capabilities contributing to produce more efficiently and/or better meet customers' needs.

Other assumptions serve to divide resource-based theory as a whole into two schools of thought (Schulze, 1994): the structural school and the process school. The first suggests that sustained competitive advantage is feasible if the resources used to achieve that advantage are rare, imperfectly mobile, and non-substitutable (Barney, 1991). This assumption is also accepted by the process school, which focuses on the conditions and process through which resources generate different types of benefits (Grant, 1991); specifically, it is suggested that capabilities, defined as teams of resources working together (Grant, 1991:120), are considered major sources of competitive advantages.

## **SUSTAINABILITY AS A SOURCE OF COMPETITIVE ADVANTAGE**

### **Conceptual approach to sustainability**

Since early in the 1980s there has been a growing number of studies, international reports, statements, and agreements concerning with the present and future well-being of Planet Earth. Notable among these documents is the Brundtland report (World Commission for the Environment and Development, 1987:8), which recommends to carrying out human activities in a sustainable manner. Specifically, *sustainable development*, defined as development which meets the needs of the present without compromising the ability of future generations to meet their own needs, is suggested. Moreover, the Brundtland report conceptualizes sustainable development in terms of four interrelated strategies: a) managing the impacts of populations on ecosystems, b) ensuring worldwide food security, c) managing ecosystem resources, and d) creating sustainable economies.

Although the Brundtland report's definition of sustainable development has been widely accepted and endorsed by governments and other organizations worldwide, it is just a normative abstraction, which is problematic for several reasons (Starik and Rands, 1995), including that it can be perceived as anthropocentric, it is unclear regarding the benefits and costs of intergenerational sacrifice and transfers, and it does not provide a notion about how sustainability should be achieved.

Given the numerous political interests that have used the term *sustainability*, the ability of a single definition of the concept to satisfy everyone appears severely limited (El Serafy, 1992). Furthermore, no shortage of alternative definitions of sustainable development have been proposed. Yet, as an emerging paradigm, sustainable development is expected to generate definitional diversity, which should be proactively embraced for the advance of the literature. According to Gladwin, Kennelly, and Krause (1995), the debate over the meaning of sustainable development will go on, and should go on, for a long time, and any chosen conception is but one of many that might be offered at this time.

An overview of recently published definitions of sustainable development led these authors to conceptualize it as a process of achieving human development: a) over time and space, b) embracing ecological, social, and economic interdependence, c) with intergenerational, intragenerational, and interspecies fairness, d) caring and preventing technologically, scientifically, and politically, and e) with safety from chronic threats and protection from harmful disruption.

Furthermore, several scholars dealing with sustainable development have suggested that the achievement of sustainability requires ecologically sustainable political and economic systems, organizations, and individuals (*e.g.*, Starik and Rands, 1995; Costanza, Daly, and Bartholomew, 1992; Gallup International Institute, 1992).

Specifically, Shrivastava (1995) states that governments, consumers, and corporations contribute and play crucial roles in reaching sustainable development. Firstly, governments, as well as selectively mitigating many environmental problems by undertaking appropriate programs, must also establish ecologically sustainable economic policies. Secondly, consumers must be willing to consume fewer products and use them more wisely. Thirdly, in order to address industrially induced ecological problems, corporations should make voluntary efforts, which could also provide them with benefits such as ecological efficiency cost reductions, capturing emerging green markets, gaining first-mover advantage in their industries, establishing better community relations, and improving their image.

### **Sustainability in management literature**

In line with the aforementioned, firms represent one of the main agents in any process aiming to achieve a sustainable development. However, our review of organization and strategic management literature suggests that scholars and professionals in the management field have paid a scarce, although increasing, attention to the sustainable management of the firms. Specifically, Shrivastava (1994) considers that only 10 per cent of the studies in the management field of study have focused on sociocultural and environmental aspects of the organizations.

One of the explanations of this scarce attention to sustainability which is mentioned in literature refers to the supremacy of the human being-based view of the firm over the environment. More precisely, Purser, Park and Montuori (1995) identify a dual perception between organizations and environment, meaning that humans welfare is accepted as the main purpose of firms. Shrivastava (1995c) further mentions other three reasons why management literature has paid a scarce attention to environmental aspects. Firstly, general environment analysis has ignored environmental variables, focusing, however, on economic, social, political, law, and technological variables. On the other hand, management literature has emphasized financial risks and those associated to changes in the demand, thereby being marginal the attention paid to the environmental risks produced by business activities. Finally, environmental problems have been also minimized by the idea that firms must produce efficiently and that consumption represents a crucial characteristic in current economic systems.

As a result, organization theory and strategic management literature contributions to the new multidisciplinary paradigm named *sustainable development* are scarce. Within organization theory, Jennings and Zandbergen (1995) show the institutional theory contributions to explain how sustainable development practices are adopted by organizations. Specifically, this theory hypothesizes that most of the organizational actions show a behavioral pattern which evolves and is legitimized by the government, other organizations or the organization itself (Pfeffer, 1987; Zucker, 1987). Consequently, for firms to implement sustainable actions, they must receive any pressure by the government, other organizations or the organization itself. Moreover, according to this theory, the progressive acceptance of the principles associated to sustainability by all of the agents in a community, including firms themselves, is expected to contribute to a sustainable business behavior.

On the other hand, literature on organizations social responsibility has mainly focused on the changing role of organizations in the society with a view to explaining why organizations must be particularly sensitive to social needs, including the environmental problems as a crucial issue (Freeman, 1984). However, the lack of operational definitions on the term *social responsibility* makes it difficult to explain its actual concept (Wood,

1991). Clarkson (1995) suggests that a society determines, usually over the time, what is a social issue, and when necessary it is governed by law. When there is no specific regulation, a particular organization social issues are those over which its stakeholders are concerned with. Therefore, according to the social responsibility literature, the extent to which a particular firm fulfils the sustainability principles can be determined by two key factors: a) the existence of an appropriate environmental and social law, and b) the stakeholders (e.g., employees, customers, suppliers, public organizations, other organizations) pressures to address environmental and social issues.

Within strategic management literature, the green perspective has emerged the importance of ecological issues and social responsibility in any strategic planning process (Borch and Arthur, 1991; Shrivastava, 1995a; Hart, 1995). Among the studies included in the green perspective of the strategic management, Shrivastava's (e.g., 1995a, 1995b, 1995c) must be mentioned; this author suggests that firms, in their efforts to effectively address the ecological degradation, must manage technological and environmental risks appropriately; that is, firms must place nature at the center of the management and organization (Shrivastava, 1995c). Specifically, this author introduces the term of *ecocentric management* to make reference to a new management style which aims to achieve a sustainable economic development and improve the life quality of all of the stakeholders worldwide. This purpose is based upon values which reject the supremacy of the human beings over the nature, and imply the need for changes in all of the organizational aspects: mission, inputs, procedures, and products. The ecocentric management focuses on producing sustainable products by designing them appropriately and using the adequate materials and ecological wrappings, packagings and bottlings; it further encourages the minimum consumption of energy and natural resources, together with the usage of technologies which are efficient and appropriate from an environmental point of view.

Jennings and Zandbergen (1995), in their review of the literature on the role of organizations in the sustainable development, conclude that the first methods used by firms with a view to adopting the sustainability principles are mere direct answers to the pressures that they received as a result of the progressive environmental degradation.

Among these measures we include the following (Williams, Medhurst and Drew, 1993): a) environmental audits, b) technical responses based upon key technologies of the firm and the industry, c) waste management, with the waste audits as a technique to estimate costs, and d) modifications of products and services based upon the customers demand of sustainability.

Recently, a number of relevant authors in the strategic management field of study have focused their efforts on the design of models to formulate strategies which cover the sustainability principles. They actually aim to show how important is for firms to have a more proactive attitude towards the sustainability strategic implications for firms. For example, Post and Altman (1992) suggest that firms which are interested in adopting the sustainability principles must make relevant changes in their overall strategy and its implementation, organizational structure, operations, and learning systems.

Innovation is usually referred to as the main strategic action for facing the environmental restrictions imposed by law, together with the environmental and sustainability standards imposed by the organization itself (Porter and van der Linde, 1995). Business innovations with regard to environmental issues can be classified in two major categories. Firstly, there are technologies and processes which minimize the costs generated by facing the environmental impacts caused by business activities; these innovations concern with the conversion, by recycling and reusing, of contaminating substances or wastes into something with value. Secondly, there are technologies related to the causes of contaminating substances and wastes; in this case, technologies aim to improve the efficiency in the usage of materials and energy.

Some firms, particularly those concern with minimizing operations environmental impact, have further adopted specific management measures with a view to achieving a sustainable behavior, including the following (*e.g.*, Shrivastava, 1995a; Hart, 1995): a) environmental audits, b) environmental impact assessments, and c) the inclusion of sustainability in the business ethics and philosophy. As a result, more and more firms are showing an increasing interest in Total Quality Environmental Management (TQEM), a more complex technique which aims to make continuous improvements in each of the

stages of the design and production process undertaken by a particular firm with a view to minimizing the environmental impact of the different activities undertaken by the firm. Just as Total Quality Management demands the zero-defects goal as they are clear indicators of inefficiency in the design of processes and products and services as well, TQEM sees waste generation as an indicator of inefficiency, and, as a result, it aims to improve efficiency and quality by minimizing wastes; specifically, it seeks to eliminate emissions, effluents, and accidents (Porter and van der Linde, 1995).

Finally, it is worth mentioning the recent research stream concerning with the conditions under which a sustainable behavior is economically profitable for a particular firm. Specifically, environmental and social aspects are suggested in literature as major sources of competitive advantage that, however, are not being appropriately pursued by firms (*e.g.*, Shrivastava, 1995a; Hart, 1995; Porter and van der Linde, 1995). The resource-based view of the firm theory, which was previously described, seems to be particularly useful in identifying the resources and capabilities which actually contribute to successfully implement the principles of sustainability (*e.g.*, Hart, 1995). Next section will examine the conditions under which a sustainable business behavior is expected to represent a major source of competitive advantage.

### **Sustainability and competitive advantage**

A number of researchers consider that firms are the only institution in modern societies with enough power to cause the necessary changes leading to sustainable development (*e.g.*, Makower, 1994; Shrivastava, 1995a). However, for this power to be exercised it seems to be crucial that firms recognize that a sustainable behavior represents a major source of competitive advantage. Specifically, in as far as it is economically interested, firms are expected to formulate and implement specific strategic actions associated to sustainability; meaning that these actions should allow firms to obtain superior benefits in comparison to their competitors. Particular interest should show private firms and organizations operating in industries directly related to sustainability (*e.g.*, recycling), as they only operate in such industries whenever the industry is economically attractive.

In line with the aforementioned, political institutions should promote the establishment of

the appropriate sociocultural, legal, technological, and economic conditions which contribute to the economic appealing of those business activities following sustainability guidelines (e.g., Gladwin, Kennelly, and Krause, 1995; Porter and van der Linde, 1995). Specifically, a few guidelines, including the *Business Charter for Sustainability*, have been formulated with a view to guiding firms in implementing sustainable actions. According to Kolluru (1994), the principles included in the *Business Charter* affect the following six elements of management: management of product/service design, operations management, precautionary management, employee/customer education, contractor/supplier management, and technology transfer. More detailed guideles are being developed by taking into consideration the industry characteristics in which firms operate; for example, the *Agenda 21 for the Travel and Tourism Industry* includes recommendations about ten priority areas for action: a) waste minimization, reuse and recycling; b) energy efficiency, conservation and management; c) management of fresh water resources; d) waste water management; e) hazardous substances; f) transport; g) land-use planning and management; h) involving staff, customers, and communities in environmental issues; i) design for sustainability; and j) partnerships for sustainability development. Each of these priority areas is further developed in more specific actions (World Travel and Tourism Council, World Tourism Organization, and Earth Council, 1996).

A particular firm sustainable actions must be coherent and integrated in the rest of the strategic actions which are being currently undertaken by the firm with a view to competing with other firms in the same industry. However, sustainable actions might also represent major sources of competitive advantage. According to Porter (1985), sources of competitive advantage can be classified in the following categories: a) cost advantage sources, which imply being the cost leader in the industry; and b) differentiation advantage sources, which allow firms to offer something unique for customers, who, in turn, are ready to pay extramoney for it.

Generally speaking, a sustainable behavior is considered to be a major source of differentiation advantage, as a business behavior which is concerned with the environmental conditions and sociocultural characteristics of the geographic areas in

which firms operate is frequently recognized by potential customers, who are increasingly conscious of achieving a sustainable development and seems to be ready to sacrifice some economic growth for environment conservation and social progress (Shrivastava, 1995b). For example, products and services which are certified as being ecological are having the fastest demand growth.

In line with Porter (1985), sources of differentiation are unlimited, although they can refer to products and services observable characteristics (*e.g.*, size, form, colour, weight, design, raw materials), performance (*e.g.*, reliability, consistency, flavour, speed, durability, security), complementary products and services (*e.g.*, presell and postsell services, accessories, availability, delivery), and social, emotional, psychological, and aesthetic considerations which are present in any choice between products and services. These last sources of differentiation are the most directly related to a sustainable business behavior, meaning that the ecological image of a particular firm is usually recognized by a segment of potential customers which is increasingly growing. Furthermore, a business behavior interested in the economic and social development of the geographical area in which a particular firm operates is expected to make residents more loyal to the firm, as they would associate the firm benefits with the community benefits. In line with this, many firms are taking advantage of having been the first in implementing specific actions for achieving sustainability (*e.g.*, Walley and Whitehead, 1994); these advantages usually come from the reputation of being a sustainable firm.

Some innovations which allow firms to reduce their environmental impact could further imply other sources of differentiation different to those associated to the firm image. In this line, Porter and van der Linde (1995) suggest as a major potential benefit the improvement of quality and consistency of products and services.

On the other hand, environmental law requisites and standards for minimizing firms environmental impacts, particularly in industries which are intensive in energy and natural resources, represent a new type of costs for firms, thereby significantly modifying firms cost structure (Smart, 1992). However, many of the actions that firms are currently undertaking with a view to having a sustainable behavior might imply cost saving and,

therefore, might represent a major source of cost advantage (*e.g.*, Walley and Whitehead, 1994; Porter, 1994; Porter and van der Linde, 1995). Specifically, Porter and van der Linde (1995) consider that, generally speaking, any reduction of contaminating substances (*e.g.*, solid wastes, residual water and air emissions), suggests that resources have not been used efficiently or effectively, and, thus, these contaminating substances must be considered as firms economic wastes. Moreover, owing to the inadequacy usage of resources, firms must undertake additional activities which add costs and do not create value to customers, including collection, storage and deterioration of wastes. As a result, it is suggested that by minimizing its wastes, a particular firm will also improve its competitiveness.

Moreover, Shrivastava (1995b:185) introduces the term *environmental technology* to refer to production equipment, methods and procedures, product designs, and product delivery mechanisms that conserve energy and natural resources, minimize environmental load of human activities, and protect the natural environment . Environmental technologies incorporate environmental considerations into many aspects of business operations, and thus affect the competitive landscape in most sectors of the economy and provide many firms with sources of cost advantage in comparison with their competitors. One of the firms more mentioned in literature is 3M, which has minimized its operations environmental impact by a number of innovations which, in turn, have represented major cost savings. Specifically, it is estimated that since 1975 3M has reduced its emissions in more than 1 billion pounds and its costs in more than 500 million dollars (Walley and Whitehead, 1994).

As mentioned previously, major sources of cost advantage include (Porter, 1985; Grant, 1996): scale economies, learning economies, production capacity management, management efficiency, cost of inputs, product design, and process technology. By adopting a sustainable behavior, firms can gain some of these sources of cost advantage, particularly that associated to designing products with a view to minimizing the environmental impact of wastes, thereby reducing simultaneously the consumption of energy and materials (*e.g.*, Shrivastava, 1995a; Porter and van der Linde, 1995). Moreover, products wrapping, packaging, and bottling represent a major source of cost

saving whenever they are not demanded by channels of distribution and customers who are conscious of the need for conserving the environment and who are forced to pay taxes, directly or indirectly, by using those complementary materials to the main product (Porter and van der Linde, 1995). Another major source of cost saving includes the technology and processes which are necessary to reduce the consumption of energy and materials, reuse materials and limit waste generation (*e.g.*, Shrivastava, 1995a, 1995b; Porter and van der Linde, 1995). Finally, it is worth mentioning that some materials which are considered ecological because they are easily recycled or renewed, together with alternative energies, can represent an important cost reduction owing to their relatively lower costs, in comparison with traditional materials and energies.

The extent to which scale economies, learning economies, and production capacity management represent sources of cost saving depends on the industry in which the firm operates. Specifically, these sources of cost advantage are frequent in industries, like the recycling industry, which are directly related to the environment conservation (*e.g.*, Biddle, 1993); major reasons include: a) increases in production are higher than increases in consumption of materials, b) they are relatively new industries in which processes are not perfectly designed, and c) they are industries in which a firm production capacity is relevant, and, as a result, an appropriate capacity management can contribute to achieve a major cost advantage.

Other sources of cost advantage come from the existing relationships among the different activities which are currently undertaken a particular firm. More precisely, firms undertaking specific actions to control its environmental impact could avoid important sanctions established by environmental law; as a result, the cost associated to establishing an appropriate control system might be lower than the monetary sanctions imposed against an excessive environmental impact (*e.g.*, Porter and van der Linde, 1995). Negative consequences of an excessive environmental impact also include the negative effect on the firm image, and thus on the firm sales. Firms image is expected to be equally affected when firms behave without taking into consideration the economic and social needs of the community in which they operate.

According to the resource-based view of the firm theory, a particular firm competitive advantage is a consequence of its resources and/or capabilities which are scarce, as they are not possessed by all of the firms in the same industry, and relevant, as they contribute to either improve the internal efficiency or achieve a differentiation advantage (*e.g.*, Barney, 1991). Moreover, for a competitive advantage to be sustained it is necessary that the resources and capabilities which create the competitive advantage be long lasting and difficult to acquire and/or imitate by competitors. However, any change in the general environment, including economic, technological, political, law, sociocultural, and environmental changes, and in the specific environment, including competitors, buyers, suppliers, and substitutes actions, could modify a particular firm competitive advantage.

By using the resource-based view of the firm theoretical framework, Hart (1995) suggests a natural resource-based view of the firm perspective, which focuses on the restrictions and challenges associated to the environment as major sources of competitive advantages. This theoretical perspective is based upon the consideration that natural resources are limited, together to the environmental impact of the economic activities, which represent one of the major causes of the progressive deterioration of the environment. In line with this perspective, a number of authors suggest a change in the strategic management paradigm with a view to introducing the sustainability principles in order to identify new resources and capabilities which are able to generate a competitive advantage (*e.g.*, Hart, 1995; Shrivastava, 1995a). Specifically, it is suggested that in the future the major sources of competitive advantage will be those resources (*e.g.*, reputation of contributing to the environment conservation and the economic and social development) and capabilities (*e.g.*, design of green products, reduction of wastes) which significantly contribute to a sustainable economic activity.

### **THE CASE OF SMALL- AND MEDIUM-SIZED FIRMS**

A number of input and output measures have been used in defining SMEs, including (*e.g.*, Atkins and Lowe, 1995): number of employees, turnover, assets, managerial processes, and other criteria (sometimes based on ownership or independence). However, the definition of SMEs usually varies enormously between industry sectors and between countries. For example, in the European Community, micro enterprises are those with

less than 10 employees, while medium-sized enterprises are those with more than 10 and less than 500 employees (de Koning and Snijders, 1994). More specifically, Atkins and Lowe (1995) consider that not only do manufacturing and services require different definitions of SMEs in terms of the number of employees but the differences between those definitions increases as the degree of sophistication in the planning process expected also increases. In the following sections the authors will discuss SMEs contributions to a particular community sustainable development, in comparison with large companies, and underline how SMEs can take competitive advantage by behaving in line with the principles of sustainability.

### **SMEs contributions towards sustainable development**

Although a particular SME contribution towards sustainable development is small, taken together SMEs have a very large impact on the development quality of a specific geographic area. The more presence of SMEs in the economy of a particular area, the more important is the SMEs role for achieving sustainability (*e.g.*, Welford and Gouldson, 1993).

In comparison with large companies, SMEs show particular benefits for a geographic area interested in achieving a sustainable development, which can be grouped in the following categories: economic, sociocultural, environmental, and collaboration contributions.

Major *economic contributions* to sustainability come from the fact that residents and indigenous are more probably to own and run SMEs than larger companies, which frequently are multinational companies. Specifically, in the SMEs, the management process is characterised by the highly personalised preferences, prejudices, and attitudes of the firm's entrepreneur, owner and/or owner-manager (Jennings and Beaver, 1995). As a result, SMEs allow residents and indigenous to participate in the economic development and, consequently, to obtain the economic benefits generated by the community (Howard and Hine, 1995). Furthermore, SMEs which are owned and run by residents are expected to reinvest their benefits in the community itself, while large companies usually act internationally. Finally, SMEs draw out capital that would

otherwise remain underexploited by the economy, and help develop new markets by improving forward and backward linkages between economically, socially, and geographically diverse sectors of the economy (Howard and Hine, 1995) These SMEs potential economic contributions to sustainability might be balanced against overall economic efficiency of SMEs in comparison with larger companies; meaning that SMEs operating in a particular community must be internationally competitive in order to make significant contributions to sustainability. For example, inefficient SMEs increase the production costs and, consequently, the prices the residents must pay.

Although large companies, particularly multinational companies, are more and more implementing strategic actions with a view to conserving the sociocultural aspects of the communities where they operate, SMEs show particular characteristics which make them particularly appropriate for *conserving the sociocultural aspects* of the community. Firstly, it is suggested that SMEs generate much more employment than what large companies do; specifically, in the European Community, SMEs cover 99,9 per cent of the enterprises and almost 72 per cent of employment; the remaining part is covered by large businesses (de Koning and Snijders, 1994). Secondly, in as far as SMEs are owned and run by residents, SMEs organizational cultures are expected to be fit to community values and attitudes. Thirdly, for the same reason, SMEs might be particularly interested in conserving local cultural heritage.

SMEs *environmental contributions* to sustainability are justified by two major reasons. Firstly, SMEs owners usually make investment decisions locally and, as a result, SMEs scarce mobility is expected to make owners particularly environmentally conscious. Furthermore, local owners are probably to show a particular interest in conserving the environment they live in. Again, these advantages might be minimised by large companies growing interest in formulating corporate strategic actions with a view to conserving the environment of the communities in which they operate. Finally, SMEs are less probably to operate in high-impact industries; specifically, in the European Community, large companies provide approximately half of the employment in the manufacturing industries (de Koning and Snijders, 1994).

SMEs *collaboration contributions* refer to the fact that SMEs, in comparison with large companies, are frequently more used to cooperate with other organizations in their environment. Increasingly, small firms are being forced by market to cooperate with other organizations with a view to achieving the scale economies which are associated to large companies. By considering that cooperation among organizations, governments and residents represents a requisite for any sustainability project, it is suggested that SMEs are more probably to fit to a sustainable development program.

### **Sustainability as a source of competitive advantage for SMEs**

In line with the aforementioned, it is expected that residents in a particular community show a positive attitude towards SMEs, which, in turn, can be a psychological source of differentiation advantage for SMEs, in comparison with large companies. Furthermore, SMEs characteristics force them to achieve major sources of differentiation advantage, as large companies have easier access to some of the sources of cost advantage.

Although it is mentioned that SMEs usually participate in collaboration agreements in order to achieve sources of cost advantage directly associated to the volume of operations, generally speaking, the relatively smaller size of SMEs, in comparison with large companies, impedes SMEs from taking advantage of major sources of cost advantage, including scale and scope economies. On the contrary, it is suggested that SMEs should focus on achieving differentiation advantages. Specifically, SMEs are increasingly being forced by the market to be more flexible and, at the same time, more specialised, producing high-quality products; many of the market changes actually make the integration of environmental and social strategies easier (*e.g.*, Welford and Gouldson, 1993).

Specifically, any of the sources of differentiation advantage which derive from a sustainable business behavior -see section on *Sustainability and competitive advantage*- might be a major source of competitive advantage for SMEs. Some of these sources are: the reputation of being a sustainable firm, the improvement of quality, the consistency of products and services, and the design, materials and any other observable characteristic of an ecological product or service.

However, SMEs can not forget the need for controlling costs. As a result, they should pay attention to those sustainable business actions which represent major sources of cost savings, even though their main concern is not competing by having the lowest costs. Specifically, some of the cost savings expected from a sustainable behavior which can be particularly appropriate for SMEs include costs of inputs, product design, and process technology.

## REFERENCES

- Atkins, M.H. and Lowe, J.F.** (1995). Sizing up the small firm: UK and Australian experience . *International Small Business Journal*, Vol. 15, 3:42-55.
- Barney, J.** (1991). Firm resources and sustained competitive advantage . *Journal of Management*. Vol. 17:99-120.
- Barney, J.** (1992). Integrating organizational behavior and strategy formulation research: A resource based analysis . *Advances in Strategic Management*. Vol. 8:39-61.
- Biddle, D.** (1993). Recycling for profit: The new green business frontier . *Harvard Business Review*. November-December:145-156.
- Borch, O.J. and Arthur, M.B.** (1991). Strategic networks among small firms: Implications for strategy research methodology . Paper presented at the *Annual Conference Strategic Management Society*, Toronto.
- Clarkson, M.B.E.** (1995). A stakeholder framework for analyzing and evaluating corporate social performance . *Academy of Management Review*. Vol. 20, N 1:92-117.
- Costanza, R. and Daly, H.E.** (1992). Natural capital and sustainable development. conservation . *Biology*. Vol. 6:37-46.
- De Koning, A. and Snijders, J.** (1994). Policy on small- and medium-sized enterprises in countries of the European Community . *International Small Business Journal*. Vol. 13(1):25-39.
- El Serafy, S.** (1992). Sustainability, income measurement, and growth , en Goodland, R.; Daly, H.E. and El Serafy, S. (Eds.). *Population, Technology, and Lifestyle: The Transition to Sustainability*. Island Press. Washington, D.C. Páginas 63-79.
- Freeman, R.E.** (1984). *Strategic Management: A Stakeholder Approach*. Pitman/Ballinger. Boston.

- Gallup International Institute** (1992). *Survey of Environmental Attitudes*. Gallup International Institute. Princeton.
- Gladwin, T.N.; Kennelly, J.J. and Krause, T.-S.** (1995). Shifting paradigms for sustainable development: Implications for management theory and research . *Academy of Management Review*. Vol. 20. N 4:874-907.
- Grant, R.M.** (1991). The resource-based theory of competitive advantage: Implications for strategy formulation . *California Management Review*. Spring: 114-135.
- Grant, R.M.** (1996). *Dirección estratégica: Conceptos, técnicas y aplicaciones*. Cívitas. Madrid.
- Hart, S.L.** (1995). A natural-resource-based view of the firm . *Academy of Management Review*. Vol. 20. N 4:986-1014.
- Howard, D. and Hine, D.** (1995). The population of organisations life cycle (POLC): Implications for small business assistance programs .
- Jennings, P.D. and Beaver, G.** (1995). The performance and competitive advantage of small firms: A management perspective . *International Small Business Journal*. Vol. 15(2):63-75.
- Jennings, P.D. and Zandbergen, P.A.** (1995). Ecologically sustainable organizations: An institutional approach . *Academy of Management Review*. Vol. 20. N 4:1015-1052.
- Kolluru, R.** (1994). *Handbook of Environmental Strategies*. Englewood Cliffs. Prentice-Hall. New Jersey.
- Mahoney, J. and Pandian, R.** (1992). The resource-based view within the conservation of strategic management . *Strategic Management Journal*. Vol. 13:559-584.
- Makower, J.** (1994). *Beyond the Bottom Line: Putting Social Responsibility to Work for your Business and the World*. Anchor Books/Doubleday. New York.
- Pfeffer, J.** (1987). *Organizaciones y Teoría de la Organización*. El Ateneo Editorial.
- Porter, M.E.** (1985). *Competitive Advantage*. Free Press. Nueva York.
- Porter, M.E.** (1994). Towards a new conception of the environment-competitiveness relationship . Paper presented at *The Global Environmental Management Initiative Conference*. Washington, D.C.
- Porter, M.E. and van der Linde, C.** (1995). Green and competitive . *Harvard Business Review*. September-October:120-134.
- Post, J.E. and Altman, B.W.** (1992). Models of corporate greening: How corporate

- social policy and organizational learning inform leading-edge environmental management . *Research in Corporate Social Performance and Policy*. Vol. 3:3-29.
- Purser, R.E., Park, Ch. and Montuori, A.** (1995). Limits to anthropocentrism: Toward an ecocentric organization paradigm? . *Academy of Management Review*. Vol. 20. N 4:1053-1089.
- Schulze, W.E.** (1994). The two schools of thought in resource-based theory: Definitions and implications for research . *Advances in Strategic Management*. Vol. 10A: 127-152.
- Shrivastava, P.** (1994). Greening business education: Toward an ecocentric pedagogy . *Journal of Management Inquiry*. Vol. 3:235-243.
- Shrivastava, P.** (1995a). The role of corporations in achieving ecological sustainability . *Academy of Management Review*. Vol. 20. N 4:936-960.
- Shrivastava, P.** (1995b). Environmental technologies and competitive advantage . *Strategic Management Journal*. Vol. 16:183-200.
- Shrivastava, P.** (1995c). Ecocentric management for a risk society . *Academy of Management Review*. Vol. 20. N 1:118-137.
- Smart, B.** (1992). *Beyond Compliance: A New Industry View of the Environment*. World Resources Institute. Washington, D.C.
- Starik, M. and Rands, G.P.** (1995). Weaving an integrated web: Multilevel and multisystem perspectives of ecologically sustainable organizations . *Academy of Management Review*. Vol. 20. N 4:908-935.
- Walley, N. and Whitehead, B.** (1994). It s not easy being green . *Harvard Business Review*. May-June:46-52.
- Welford, R. and Gouldson, A.** (1993). *Environmental management and business strategy*. Pitman Publishing. London.
- Williams, H.E.; Medhurst, J. and Drew, K.** (1993). Corporate strategies for a sustainable future , in Fischer, K. and Schot, J. (Eds.). *Environmental Strategies for Industry: International Perspectives on Research Needs and Policy Implications*. Island Press. Washington, D.C. Pages 117-146.
- Wood, D.** (1991). Corporate social performance revisited . *Academy of Management Review*. Vol. 16:691-718.
- World Commission for the Environment and Development** (1987). *Our Common Future*. Oxford University Press. London.

**Zucker, L.** (1987). Institutional theories of organizations . *Annual Review of Sociology*.  
Vol. 13:443-465.