Corporate Environmental Management

SYSTEMS AND STRATEGIES

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Earthscan Publications Ltd.
Chapter 2

Corporate Strategy and the Environment:
the Theory

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INTRODUCTION

Corporate strategy has been driven by different forces in the past, by production pressures, personnel pressures, and more lately by information pressures. This decade as well as the next shows clear signs of corporate strategy being driven by environmental pressures (Welford, 1995). Major changes in corporate strategy are clearly visible due to the increased environmental concerns of stakeholders and the belief that being `green' pays through cost reduction and increased market entry. This chapter examines much of the relevant theoretical literature in this field. In so doing it builds a basis for the more practical chapters which follow. This is a subject area which is still relatively underdeveloped, and given the paucity of literature, the intention of this chapter is to classify and provide a framework for past and current theories of corporate strategy and environmental pressures. We argue that not only are the existing sub-theories of corporate strategy (principally competitive advantage and competitive strategy) being slowly modified to include environmental problems and concerns, but they are also being broadened to incorporate the principles of sustainable development (Welford, 1995).

HISTORICAL OVERVIEW

Rachel Carson's Silent Spring, a book on the global problems of herbicides and pesticides written in 1962, heralded the arrival of the environmental era. The 1960s also saw the emergence of environmental economics as a separate branch of economics. During this period, it was felt that growth and development and protection of the environment could not go hand in hand. Hence most of the theories that developed during this period were anti-growth (Pearce et al, 1990). It was in 1972 that the first Earth Summit was held, leading to the establishment of the United Nations Environment Program (UNEP). During this decade, on the one hand, there were some environmental economists who were quite optimistic and felt that resources could never be completely exhausted (Pearce et al, 1990), and that the development of substitutes or technological changes like recycling, in order to conserve resources, was bound to take place. On the other hand, the Club of Rome's renowned The Limits to Growth (Meadows et al, 1979), concluded that even under the most optimistic assumptions, the world could not support the rate at which the world's population and economy were growing for more than a few decades.

The 1980s witnessed a shift in thinking. The concept of 'zero growth' was replaced by sustainable development, which essentially involves meeting the needs of the present without compromising the ability of future generations to meet their own needs (Bruntland Report, 1991). In other words, it means income generation while maintaining the (natural and man-made) capital base (Beaumont et al, 1993). Pearce, Markandya and Barbier's Blueprint for a Green Economy (1989), which showed how sustainable development might be achieved through market forces and regulations, was one of the first attempts to show that preservation of the environment and economic growth are not necessarily incompatible. This period also marked the rise to prominence of environmental organizations like Greenpeace and Friends of the Earth.

The 1990s, which saw the second Earth Summit in Rio de Janeiro (1992), might be regarded as the period of strategic action, both on the part of government and by some companies at the corporate level. In the 1970s, environmental management was regarded by companies with indifference and even hostility (Greeno et al, 1992), with the exception of a few such as 3M (Royston, 1979). More recently, leading companies have begun to regard environmental
management as a strategic tool for gaining competitive advantage (Shrivastava et al, 1992). In most western countries governments, for their part, have increased the level of legislation affecting business with increased emphasis on the 'Polluter Pays' principle. In the UK and Ireland there has also been an emphasis on the concepts of BATNEEC (best available techniques not entailing excessive costs) and BPEO (best practicable environmental option), which emphasize the importance of drawing a balance between economic growth and preservation of the environment. In the UK, where systems approaches within business are perhaps best developed, the government has also made a comprehensive compilation of its existing policies in its White Paper, This Common Inheritance (1990) and specifically supports BS7750, the British Standard for Environmental Management Systems, and the development of Strategic Environmental Assessment (SEA), (Hill et al, 1994).

Thus the concept of zero growth and other steady-state theories that emerged during the 1960s and 1970s, which were anti-growth, have now been largely replaced by the concept of sustainable development. Moreover, theories of corporate strategy are also gradually being modified to incorporate environmental problems and concerns. However, there is still relatively little debate over whether a traditional corporate strategic planning approach within the traditional capitalist system (with all its financial and short-term constraints) can actually lead us towards sustainable development. Welford (1995) argues for a radical reappraisal of the way we do business for example. However, for the time being this problem is put aside.

THEORETICAL FRAMEWORK

Meima's (1994) categorization of the various environmental management paradigms that have emerged over the past few years into four groups, gives us an overall theoretical framework. His approach suggests that while there are some who perceive the environment as an anthropocentric moral/ethical issue, there are others who regard it as a means to gaining financial benefits. It is here that the concept of competitive strategies and competitive advantage comes in, and it is on this approach to the environmental challenge that this book will be focused. The third paradigm perceives environmental management as a function of quality (eg TQEM, BS7750). The fourth approach to environmental management is determining ways in which industrial action can be made compatible with nature; for instance, by minimizing emissions, by reducing wastes at source etc. Although it is beyond the scope of this chapter we might also suggest a fifth (underdeveloped) category which takes the definition of the environment further, and deals with the achievement of wider principles of sustainable development including equity and futurity.

Simpson (1991) suggests that corporate responses to environmental pressures can be categorized into three main groups; the 'Why Mes', the 'Smart Movers' and the 'Enthusiasts'. The 'Why Mes' are the companies that have been forced to improve their environmental performance as a result of some well-publicized event. Some outstanding environmental accident acts as a catalyst and induces the company to take some action in the field. 'Smart Movers' are the ones that have been able to exploit the opportunity created by the arrival of the green consumer to gain competitive advantage. Heinz is an example of a company adopting such a strategy. The 'Enthusiasts' include companies like The Body Shop, that have moved beyond compliance, and have incorporated their environmental strategy into their overall business strategy.

Similarly, Steger's conceptual model (1990, in Roome, 1994) categorizes corporate strategies into four categories; indifference, offensive, defensive and innovative. Indifferent companies are those that have low environmental risk and even less environmentally-based opportunities for growth. Offensive companies are those that have considerable potential for exploiting environmentally-related market opportunities, and include companies that manufacture pollution control equipment etc. Those adopting a defensive strategy are companies like the chemical companies, which have high environmental risk and cannot afford to ignore environmental issues, or their very survival could be at stake. The innovators are those that have high environmental risk and also a lot of environmentally-based opportunities for growth.

In Roome's Strategic Options Model (Roome, 1992), there are five environmental strategies for companies, namely; non-compliance, compliance, compliance-plus, commercial and environmental excellence, and leading edge. These are referred to as; stable, reactive, anticipatory, entrepreneurial and creative in Ansoff's Strategic Posture Analysis (1990, in Ketola, 1993). The first three strategies are related to compliance with the environmental standards, as the name suggests. Compliance-plus implies looking beyond the existing standards and norms. It involves integration of the environmental management techniques with the entire management system of the company. Excellence and leading edge approaches view environmental
management as good management, recognize the opportunities that have arisen as a result of the environmental revolution and strive towards state-of-the-art environmental management. Hence, it is through the adoption of excellence and leading edge strategies that a company can gain competitive advantage.

The difference between Steger's and Roome's models is that while Steger perceives corporate response to the environment as based on environmental risks and market-based opportunities, Roome argues that environmental pressures like legislation, constraints within the firm, and the ability of managers to bring about an organizational change in order to incorporate environmental issues, are equally important. James' framework (1992) is similar to that of Roome's. He believes that there are four categories into which companies can be divided, in accordance with the environmental strategy adopted by them. The first category is similar to Steger's indifference and Roome's non-compliance, where all environmental issues are simply ignored. Companies that do the minimum that is required by law fall in the second category. In the third category are companies that move beyond legislation and the last group consists of companies that use the environment as a tool for gaining competitive advantage.

Welford's (1994) categorization of the SME (small- and medium-sized enterprises) sector into four main groups is slightly different. The first group is referred to as the 'ostriches'. Companies that fall in this category not only assume that concern for the environment is a passing phase and that their impact on the environment is negligible, but also assume that their competitors feel the same and hence do nothing to conserve the environment. Then there are the 'laggards', companies that are aware of the environmental challenges facing them, but are unable to combat those challenges because of cost constraints, lack of trained manpower, lack of knowledge etc. The third group consists of the 'thinkers', companies that know that something should be done, but are still waiting for others to show the way forward. The 'doers' are the ones that have proceeded to put their thoughts into action.

Topfer (1985, in Bostrum et al, 1992) also divides companies into four categories, namely; resistant, passive, reactive and innovative. Companies that fall in the first category are the ones that view concern for the environment as a hindrance to their growth and do their level best to hinder the passing of environmental laws. Passive companies are like Steger's indifferent companies, who ignore the issue altogether. Roome argues that action taken by reactive companies has been triggered off by legislation, whereas Topfer sees it as a defensive move to catch up with the competitors. The last category, the innovators, are the same as Steger's innovators and Simpson's enthusiasts.

Pietilainen (1991, in Bostrum et al, 1992) has taken a different approach to classifying the various environmental strategies that can be adopted by an organization. Rather than classifying strategies in an ascending order of increased environmental responsibility, Pietilainen has identified the various strategic options that can be pursued by organizations simultaneously. One option available to companies is to improve market communication by highlighting a product's environmentally beneficial attributes and use it as an 'advertising gimmick'. The second strategic option is improving the existing manufacturing processes by using cleaner and more efficient technology. The third strategy is applicable to companies belonging to one particular industry, eg companies engaged in the manufacture of pollution abatement equipment, machines based on the conservation of energy and raw materials, waste reduction, recycling etc. The fourth strategy incorporates taking a long-term approach to the environment, basing the entire strategy and product mix on the environment, and carrying out research and development extensively. Vandermerwe and Oliff s (1990) framework is based on a similar approach. In their framework, (see Figure 2.1), improving market communication, improving manufacturing processes, and carrying out research and development, are the three main options available to organizations. Thus environmental improvement will be driven by marketing and manufacturing innovations and ongoing research and development to support those innovations. Barisal (1993) provides us with a useful synthesis in an attempt to sub-categorize these three categories (see Table 2.1).
Table 2.1 Options for environmental improvement

**Marketing**
- Labelling own brand products for environmental enhancement
- Introducing a 'green' product line
- Landscaping and store design to make the external and internal environment safe and aesthetically pleasing
- Providing recycling points in car parks
- The publication and distribution of materials addressing general ecological issues

**Environmental Management**
- Replacing refrigerants when retired, with lower CFCs
- Removing CFCs from aerosols
- Reducing the use of CFCs in construction materials
- Energy reduction
- Ensuring that the claims made by manufacturers of ecologically friendlier product lines are substantiated
- Reducing the use of tropical hardwoods
- Recycling and reducing waste
- Using recycled paper
- Encouraging the reuse and recycling of carrier bags
- The use of unleaded petrol in the lorry and car fleet
- Reducing the amount of product packaging
- Adopting a corporate environmental policy
- Developing specific ecologically motivated targets and ensuring that they are being met
- Conducting environmental audits

**Research and Development**
- Engaging in scientific research with respect to ecological issues, eg research into CFCs
- Engaging in ecological research, like uncovering ways in which to reduce the impact of packaging waste
- Coordinating activities between other food retailers to reduce impact on the environment
- Applying pressure on suppliers of merchandised brands to change packaging
- Applying pressure on suppliers of own brands to use environmentally friendlier manufacturing processes
- Applying pressure on suppliers of merchandized brands to use environmentally-friendlier manufacturing processes

Porter's well-known framework (Porter, 1985) of the competitive forces that determine industry profitability, can be used to indicate the nature of competition with regard to the environment in
any particular industry (Beaumont et al, 1993). The approach is summarized in Figure 2.2. Undoubtedly, the green revolution has been responsible for a number of new market entrants. For example, companies manufacturing greener and cleaner products have increased the threat of substitutes such as replacements for CFCs and aerosols etc. In addition, greening of industry strategies have brought about changed relationships between companies and their suppliers and buyers. And within some industries the environment has brought about new levels of competition and rivalry. The two by two matrix shown in Figure 2.3 sums up Beaumont, Pedersen and Whitakker's strategic environmental framework. It shows the various options available to companies for achieving competitive advantage.

Beaumont, Pedersen and Whitaker perceive corporations at six different levels, in accordance to their response to the environment. The first two levels are similar to Roome's non-compliance and compliance. The third level is referred to as 'corporate action', where management begins to regard environmental matters as important and takes a broader and a more long-term perspective of the environment. At the fourth level changes take place in the organization in response to environmental issues. The fifth level is 'supply chain action', where environmental matters become an integral part of the entire industry's supply chain. At the final level of 'business scope action', an organization expands its activities, using environmental issues to get ahead in business.
Dodge and Welford have developed an environmental performance scale which has become known as the ROAST scale (Welford, 1995, see pp 21-22 for explanation) and is now being used by others to identify aspects of corporate environmental performance. It extends the traditional environmental categorizations to include sustainable development. In order to measure improving environmental performance Dodge and Welford argue that we need to define an ultimate goal towards which the organization must move. This goal may not be achievable but it will serve as an upper boundary of sustainable performance on a five point scale. This utopian form of organization is referred to as the 'transcendent firm'. This firm will have ideals very similar to those of deep ecology and will perform in a way which is completely consistent with sustainable development. Although the debate on a definitive definition of deep ecology and its comparison to sustainable development is far from settled, for simplicity Dodge and Welford consider the four pillars of the green philosophy and deep ecology to mix as one: ecology, grassroots democracy, social responsibility, and non-violence. It becomes quite obvious at this level of abstraction that human and animal rights, non-violent behaviour, ecological management and an emphasis on regionalism are all part of the same issue.

The least environmentally sensitive measure on the ROAST scale is represented by the 'resistant organization'; the firm's environmental performance would be represented by extremely resistive behaviour. Organizations would totally disregard ecological issues in their decision making. The prime and ultimate motive of the organization would be profit and the satisfaction of shareholders. The organization would contain strong, pervasive, negative environmental values. It would tend to reject any green arguments as the trite views of extremists and a few academics. Table 2.2 compares the extremes on the performance scale.

**Table 2.2 Environmental performance scale extremes**

<table>
<thead>
<tr>
<th>Resistant organization</th>
<th>Transcendent organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resists any green behaviour</td>
<td>Internalises sustainable development</td>
</tr>
<tr>
<td>Disregards green aspects in decisions</td>
<td>Green criteria become paramount in decision making.</td>
</tr>
<tr>
<td>Willing to damage environment if beneficial to the organization</td>
<td>No decision will upset the ecological relationships</td>
</tr>
<tr>
<td>Negative environment values</td>
<td>Environmental values take on an ideology associated with sustainable development</td>
</tr>
<tr>
<td>Sees resources and nature for human profit and pleasure</td>
<td>Human beings are not above nature and but with nature, all decisions must reflect the intrinsic values and interrelationships of other members of the biosphere</td>
</tr>
<tr>
<td>Resists any green intellectual or philosophical argument as trite views of extremists</td>
<td></td>
</tr>
</tbody>
</table>

It is argued that an organization's performance can be categorized as lying somewhere between the resistant firm and the transcendent firm. The five point ROAST scale is therefore be represented by the following interval values:

| R Resistance (Stage I) | Total resistance to environmental values and rules. Organizations would be absolutely unresponsive and reactive to environmental initiatives. |
| O Observe & Comply (Stage II) | The organization observes environmental laws but actions reflect an unwilling attitude or lack of ability to comply. Actions are being enforced through legislation or court decisions. |
| A Accommodate (Stage III) | Organization begins to adapt to change. Early indications of proactive and responsive behaviours. Actions are no longer based entirely on complying with environmental legislation; the organization begins to exhibit voluntary behaviour. |
| S Seize & Preempt (Stage IV) | The organization voluntarily seizes and preempts its actions with environmental concerns. It proactively engages in setting the agenda. It is responsive to the many external |
Transcend (Stage V)

The organization's environmental values, attitudes, beliefs and culture exhibit a total support for the environment. The organization would proactively support and be responsive to all living things. It would act in a way which is fully consistent with sustainable development.

The ROAST scale can be useful in the classification of environmental performance responses from both external stakeholder groups and internal organizational functions, systems and activities. It integrates the deep ecology, social and business performance models of environmental performance. The scale, although it is a continuous spectrum, has been broken into five descriptive points for convenience. The extreme top end of Stage V represents near-perfect environmental performance reflecting the near-theological views of deep ecology. The voluntary environmental actions of the organization represented by Stages III and IV can be compared to the ideals of a more shallow ecology often typified by traditional approaches to environmental management. The organization displays a proactive and responsive attitude and stance as it moves from accommodating the greening agenda to seizing and preempting it.

Table 2.3 The ten point strategy

<table>
<thead>
<tr>
<th>No</th>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ostrich</td>
<td>Companies that assume environmental challenge is a passing fad</td>
</tr>
<tr>
<td>2</td>
<td>Resistant</td>
<td>Companies that hinder the passing of environmental laws and regulations</td>
</tr>
<tr>
<td>3</td>
<td>Why mes</td>
<td>Companies in which some wellpublicized event or accident acts as a catalyst</td>
</tr>
<tr>
<td>4</td>
<td>Indifference/non-compliance/stable/passive/ laggards/ignored</td>
<td>Companies having low environmental risks, low environmental returns, cost constraints etc</td>
</tr>
<tr>
<td>5</td>
<td>Thinkers</td>
<td>Companies waiting for others to take the lead</td>
</tr>
<tr>
<td>6</td>
<td>Offensive/smart movers</td>
<td>Companies having high environmental returns</td>
</tr>
<tr>
<td>7</td>
<td>Defensive/compliance/reactive/localized action</td>
<td>Companies having high environmental risks</td>
</tr>
<tr>
<td>8</td>
<td>Compliance-plus/anticipatory/doers/corporate action</td>
<td>Companies that move beyond compliance (proactive)</td>
</tr>
<tr>
<td>9</td>
<td>Commercial and environmental excellence/entrepreneurial</td>
<td>Companies where there is clean technology and organizational reform</td>
</tr>
<tr>
<td>10</td>
<td>Innovative/enthusiasts/leading edge/business scope action</td>
<td>Companies having high environmental risk, and also high return</td>
</tr>
</tbody>
</table>

At Stage V the firm transcends traditional commercial performance measures and adopts strategies consistent with ecological management and sustainable development. It becomes almost evangelical in its green marketing strategy and considers very carefully whether it is operating at an appropriate scale.

In summary we would suggest that while the frameworks developed by Steger, Roome, Topfer etc speak about competitive advantage, they do not specify the various strategies a company should adopt in order to become greener or to gain competitive advantage. Pietilainen, Vandermerwe and Oliff, Barisal and Beaumont, Pedersen and Whitaker have attempted to do this. Their frameworks, however, fail to indicate how competitive advantage and sustainability can be measured in the way which Dodge and Welford have described. We can, however, synthesize much of this discussion into a list of the various environmental strategies adopted by companies.
Table 2.3 therefore expands much of the literature referenced above into a ten point strategy classification. We should note that all these theoretical frameworks have been developed only during the past couple of years. Although passing references to the environment have been made by Ansoff (1979) and Porter (1991), earlier strategic management literature has otherwise been devoid of any mention of the 'natural' environment.

CORPORATE STRATEGIES FOR GAINING COMPETITIVE ADVANTAGE

We have argued above that while in the 1970s, environmental management was regarded by companies with little enthusiasm, more recently companies have begun to regard environmental management as a strategic tool for gaining competitive advantage (Shrivastava et al, 1992). This usually implies incorporating environmental management into the overall business strategy (Rushton, 1993; Bostrum et al, 1992). A study undertaken by Booz, Allen and Hamilton in 1991 of top executives in the chemical industry in the US, revealed that the leading chemical companies believe that an integrated and holistic approach to the environment is required in order to incorporate it into the overall business strategy (Rushton, 1993). This, in turn, requires the adoption of a proactive environmental strategy, as opposed to a passive or reactive strategy (Norcia et al, 1993; Little, 1991). This is equivalent to a shift from compliance to 'excellence' and 'leading edge' in Roome's Strategic Options Model (Roome, 1992). Thus according to Roome (1992), Norcia et al (1993), Little (1991) and Newman et al (1993), while a passive or a reactive strategy focuses on doing the minimum that is required by law, a proactive approach aims at moving beyond compliance, in order to gain an edge over competitors.

According to authors such as Taylor (1992) and Welford (1992) a proactive stance therefore requires total managerial commitment. It means incorporating environmental concerns into all the activities of the organization, like product quality, employee relations, and corporate image. Arthur D Little (1991) has adapted the traditional business value chain (Porter, 1985) to the environment in order to identify the various ways in which the internal performance drivers can contribute to the development of competitive environmental strategies (see Figure 2.4). Similar attempts have been made by James (1992, in Beaumont et al, 1993). Taylor's research (1992) shows that leading companies are using environmental pressures to improve operational efficiency, heighten corporate image and to develop new products and opportunities, and thus gain a competitive edge. This could mean a change in corporate culture, objectives, plans and even allocation of resources (Welford and Gouldson, 1993).

<table>
<thead>
<tr>
<th>Management and organisation</th>
<th>Top Management's Support</th>
<th>Board of Directors' Involvement</th>
<th>Organisation Relationships to Environmental Functions</th>
<th>Participation From shop Floor</th>
<th>Environmental Elements in Employee Performance evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>Research And Development</td>
<td>Pollution control</td>
<td>Energy Conservation</td>
<td>Waste minimisation</td>
<td>Recycling</td>
</tr>
<tr>
<td>Communications</td>
<td>Employees</td>
<td>Customers And suppliers</td>
<td>Local Community</td>
<td>Shareholders</td>
<td>Public media</td>
</tr>
<tr>
<td>Stages in Product Life-cycle</td>
<td>Product Design</td>
<td>Raw materials sourcing</td>
<td>Manufacturing, Sales, Distribution</td>
<td>Product Use</td>
<td>Final Disposal</td>
</tr>
</tbody>
</table>


Figure 2.4 The environmental value chain

Roome (1994) regards change as essential for the growth and development of business in the 1990s, emphasizing the importance of environmental issues in business today. He feels that it is not sufficient simply to comply with the current legislation. According to Welford (1992) the first step must be the development of environmental management systems which promote quality and a commitment by the management as well as the employees to environmental issues. This would impact across all levels of business and would be a necessary (but not sufficient) step in the achievement of sustainability in businesses.
Hutchinson (1992) has developed an organizational model which demonstrates how and where changes will occur in a company's organizational structure with the incorporation of environmental issues (Figure 2.5). He argues that the incorporation of environmental considerations will result in a number of significant changes in the organization, starting with a change in the tasks to be performed. A change in work practices may either mean that different people will be required, or the existing workforce will have to be retrained. Such a change in the work and people employed implies a change in the reward structure. Then again, such a change in these three areas, namely; work practices, workforce, and reward structure, would mean a change in the flow of information and in the decision-making process. Such changes, Hutchinson argues, should be embodied in the environmental strategies adopted by the company and not left to chance. A 'good fit' (also

![Diagram of organizational model for dealing with environmental issues](source)

mentioned by Smith, 1992) between the inputs from the environment and the above mentioned five areas is essential for the successful implementation of an environmental management system.

Companies have begun to realize that 'green issues' or 'green management' is not a passing fad but is here to stay (Greeno et al, 1992). Consequently, they are now taking a more positive attitude to environmental regulations. Barrett (1991) claims that some companies have even begun to realize that they can influence the regulations that are introduced, in such a way as to increase competitive advantage. One way of doing this is by moving beyond compliance, in anticipation of future legislation and converting what might have become legislation into voluntary codes of conduct. Such a strategy enables a company to minimize the disruption caused by complying with new regulations, and to seize market opportunities. Besides, by spending now, one avoids having to spend much more at a later stage. For example, by developing its automobiles to meet the emission standards of the US market (Taylor, 1992), Mercedes-Benz was able to create a competitive edge over its European competitors. Similarly, Shell UK has started incinerating all its solid waste in accordance with US legislation, in anticipation of similar legislation in Europe in the near future.

Porter (1985) describes two main strategies for gaining competitive advantage - cost leadership and differentiation. Little (1991) claims that both these strategies can be applied to the environment for gaining competitive advantage. Gladwin (1993) suggests that the theory of strategic choice can be applied to environmental management which, in other words, means an organization's search for different types of competitive advantage. Bostrum et al (1992) feel that there are a number of economic benefits from environmental considerations. A more effective use of raw materials in production
results in diminishing costs for example, and a greener corporate image leads to an increase in market share. New market opportunities might also be created in the form of new products and technology. Some of the main constituents of competitive advantage are listed by Welford and Gouldson (1993), and can be seen in Figure 2.6. In a nutshell, we might consider there to be five main environmental strategies that have been mentioned in the literature for gaining competitive advantage:

1. **`Excellence' and `leading edge':** This implies moving beyond compliance, viewing environmental management as good management, seizing environmentally-based opportunities that have arisen as a result of the environmental challenge and striving towards state-of-the-art environmental management (Roome, 1992).

2. **Incorporation of the environmental management strategy into the overall corporate strategy:** This implies giving due weight and importance to environmental issues during the planning process and not just including it as an afterthought. As Little (1991) rightly points out, in many companies there is no intersection of the environmental management strategies and the overall corporate planning process. Moreover, quite often there is a conflict between the two. Welford and Gouldson (1993), Taylor (1992) and Newman et al. (1992) feel that this should not happen. The organization's environmental policy, programmes and practices should be incorporated into all the activities of the business. Each and every aspect of an organization's environmental impact should be taken into consideration.

3. **Line driven:** Environmental management ought to be regarded as a line function rather than a staff function. It has been seen in a number of companies that line managers hinder the environmental staff and are not themselves responsible for the company's environmental performance. This is not right. Line managers should be aware of their environmental obligations and should be fully accountable for the environmental performance of their particular operations.

4. **The short- vs long-term strategy:** Most companies tend to lay an emphasis on short-term gains and returns, thus discounting long-term environmental benefits like increases in the morale of the workers, goodwill, improvement in public image, avoidance of the cost of penalty, compensation etc. They look for short-term solutions and for an immediate financial payback on their investments. However, investments in the field of environment do not bring immediate returns and are evident only in the long run. Moreover, it may be much simpler and cheaper to clean up the existing process using end-of-pipe technology than to develop an entirely new process or product. However, Rushton (1993) and Royston (1979) point out that the opposite can also be true. In the long run, it may be more profitable to renew the entire production process than to clean up the existing process (Bostrum et al., 1992). Hence it pays to have a long-term environmental strategy.

5. **Effective communication:** Communication, as explained by Buhr (1991) and Grayson (1992), plays a significant role in maintaining good public relations and in achieving competitive advantage. For example, Norsk Hydro (Duff, 1992) was the first company in the UK to publish its externally audited environmental report. This exercise has greatly enhanced the company's green image in the eyes of its stakeholders.
BUSINESS STRATEGIES FOR SUSTAINABILITY

While many believe that competitive advantage rather than sustainable development motivates companies to improve their environmental performance (Irwin et al., 1992), there are others who have been quick to argue that competitive advantage and sustainability can actually go hand in hand. Throop et al. (1993) advocate the use of clean technology, doing more than what is required by law, collective action and ‘an environmentalist organizational culture’, for attaining sustainable development. While collective action implies arousing the interest and involvement of the stakeholders as well as cooperation among the firms within the industry, an environmentalist organizational culture can be created by building up a knowledge base among employees, a personal belief and interest in the principles of sustainability by the management, developing adequate skills and finally by evaluating performance along the abovementioned lines.

There are other approaches, however (see for example, the framework provided in the UN Report (1993) and Welford, 1995), that perceive competitive advantage and sustainable development as being two completely different managerial approaches to the environment. While strategies employed by the former are related to seizing environmentally-based opportunities for gaining competitive advantage, the strategies employed by the latter are oriented towards dealing with global issues like global warming, desertification etc. According to Welford (1995), environmental issues, widely defined, are too important to be regarded merely as a strategic tool for gaining short-term competitive advantage. While it is true that certain benefits of industrial action to preserve the environment, like cost reduction, are in keeping with the principles of profit maximization, companies must take a more ethical and long-term approach towards the environment. This means that the definition of competitive advantage must be broadened in order to incorporate the principles of sustainability in the absence of regulation. This can only be achieved if a holistic and an integrated approach is taken towards environmental management and has the support of top management.

Stikker (1992) has put forward ten commandments for moving towards a sustainable business. They include integrating environmental issues as the responsibility of top management, making environmental jobs a line function, taking a systems approach, reducing and substituting the use of non-renewable resources, eliminating wastes, monitoring environmental performance and setting up communication and information procedures on the company's ecological principles and environmental performance. A more comprehensive strategic framework for gaining competitive advantage and for moving one’s business towards sustainability, has been given by Hutchinson (1992). Hutchinson argues that for formulating its environmental strategy, a company's external as well as internal environment must be analysed. The implications of environmental legislation, how market pressures like green customers and public opinion are impacting upon the business, and the various opportunities of becoming green - reduction in costs, new market opportunities in the form of new products and services - should be analysed. However, both of these approaches fail to take account of the non-environmental aspects of sustainable development such as equity and futurity.

At the same time, the environmental impact of all the activities of business, ranging from planning and public relations to manufacturing and distribution, should also be analysed - what are the wastes generated from each activity, the energy consumed for each activity, the impact on the community, so on and so forth. This information can then be analysed using SWOT (strengths, weaknesses, opportunities and threats) analysis. Hutchinson believes that this would enable the company to develop strategies, and to deal with ‘the three dimensions of the environmental challenge’, namely:

1. Making the present impact acceptable: A reduction in environmental impact can be achieved by identifying issues that require immediate action and by setting up realistic targets and future action plans.
2. Identifying and realizing potential: This can be done by minimizing pollution, reducing energy and raw material consumption, and exploring new business opportunities like developing new greener products or selling the old product in a new package which has an environmental appeal.
3. Change to a sustainable business: It is recognised in Figure 2.7 that, before a business can change to a ‘sustainable business’, it is essential that a strategic approach is taken towards the environment. To do this, first of all the staff at all levels of the organization should be involved. This can be achieved by creating environmental awareness and training. Secondly, the organization's culture should be changed and developed. Thirdly, cleaner and more efficient processes and technology should be developed (Irwin et al., 1992). Finally, an organization should have a clean public image. A number of stakeholders, ranging from employees to the investors, react favourably to this.
Analyse environmental trends and pressures

- Constraining regulations
  - Legislation
  - BS5750
- Market pressures
  - Customers
  - Public opinion
- Emerging opportunities
  - Cost savings
  - Products/services

Visions of a sustainable future

- Analyse company activities for environmental impact
  - Procurement
  - Production and maintenance
  - Products and services
  - Marketing, sales and distribution
  - Central functions
    - site management
    - legal
    - personnel
      - training
      - health and safety
    - R&D
    - financial
    - public affairs

Urgent priorities

Desirable objectives

Emerging opportunities

- Cost savings
- Products/services

Threats

- Make present impact acceptable
- Identify and realize potential
- Change to a sustainable business

Opportunities

- Efficient resource usage
- New business opportunities
- Staff Satisfaction

Minimum pollution

Strengthes

- Change to a sustainable business

Weaknesses

- Staff awareness and training
- Developing organisational culture
- New procedures and processes
- Public image


Figure 2.7 Strategic framework for environmental management
CONCLUSIONS

There is little doubt that discussion of environmental strategy has increased substantially over the last two to three years. There have been many attempts, reviewed here, to analyse the strategy of companies and to propose workable ways forward which both maintain or increase profitability and provide for the improvement of corporate environmental performance. It can be seen that the roots of such strategic analyses have much in common. But we must recognize that it is the majority of firms who are still operating at the levels associated with ostriches, resistors and laggards. Few are truly enthusiastic and innovative when it comes to environmental issues.

However, there is a far more fundamental criticism which might be made in the context of this chapter. This relates to whether strategic analysis and the strategic focus of many commentators will actually drive us towards sustainable development. On the one hand it might be argued that innovative strategic approaches will continually widen the definition of the environment to include equitable, social and future concerns, as consumers and governments become more critical and comprehensive in their thinking. On the other hand however, the strategic approach does not challenge the traditional model of the profit-centred industrial organization. It is therefore an extension of ‘business-as-usual’ paradigms. The achievement of sustainable development, to many, implies the need to challenge such paradigms and to fundamentally reassess the way we do business and the way in which we organize industry. Those debates are just beginning, but if they follow the speed of development of environmental strategy, it will not be long before we begin to have some rather more concrete answers. In the meantime, it seems to be agreed by most commentators that strategies associated with corporate environmental management, and integrating a systems based approach into those strategies, is the road down which we should head. To that end, the rest of this book deals with that subject area.

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