

**GREENING SMALL BUSINESS -
ASSESSING THE LEVEL OF ENVIRONMENTAL AWARENESS
AND PRACTICE IN SMALL BUSINESSES IN EDENVALE**

by

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ABSTRACT

With increased public environmental awareness and support for environmental protection, business success is becoming more dependant on environmental performance. Many large companies have acknowledged this and are engaged in corporate environmentalism to work towards the goal of ecological sustainability. The small business sector has an equally important role to play in sustainable development since their combined impact on the environment is significant. The extent to which the small business sector in South Africa has adopted a pro-environmental attitude however, has not been established. This research therefore attempts to ascertain the level of environmental awareness and practice within small business.

To achieve this aim, a questionnaire was used to collect both quantitative and qualitative data from a sample population of small businesses in Edenvale, Gauteng. The sample population represented a variety of economic sectors. The quantitative data was analysed statistically by calculating the percentage of respondents or responses and by performing a test of proportions. The qualitative data was used to clarify the findings.

The results suggested that the overall level of environmental awareness and practice within the small businesses was very low. Environmental issues were not considered to be a part of the business agenda as small business managers were unaware of the environmental impacts of their business activities. Moreover, there was a lack of both environmental pressures and information. The majority of the small businesses were therefore environmentally inactive. A small proportion of the businesses were environmentally reactive in that they had started to address environmental issues. This was however, only in response to environmental pressures and not through their own volition. Furthermore, unless subjected to environmental pressures or given incentives, the small businesses were not planning to integrate environmental practices into their business activities in the future.

DECLARATION

The research described in this dissertation was carried out through the School of Environment and Development, University of Natal, Pietermaritzburg, from September 1997 to May 1998, under the supervision of Mr Duncan De Waal and Ms Karin Ireton.

These studies represent original work by the author and have not otherwise been submitted in any form for any degree or diploma to any University. Where use has been made of the work of others it is duly acknowledged in the text.

Ciranne Dobeyn

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CHAPTER 1

INTRODUCTION

The natural environment serves the business community by both supplying resources and absorbing emissions (Schaltegger & Sturm, 1992). Survival of corporations and industries thus depends on the survival of the Earth's ecosystem (Schaltegger & Sturm, 1992). Industrial and technological developments over the last two centuries however, have disrupted this natural ecological balance (Hooper & Rocca, 1991). The consequences of which have resulted in environmental problems of global proportions.

Many businesses regard themselves primarily as economic and technological entities, with little or no understanding as to their ecological and social role (Shrivastava, 1996). They are also unaware of the harmful effects that their company may have on the environment and the repercussions that this may have on the economy. Environmental issues, such as waste minimisation and energy conservation, when presented to a business person are often simply viewed as an extra cost or an extra regulation (Hawken, 1993). The result of this thinking, is a deep-seated unwillingness to face the necessary changes within the business institutions to become ecologically and socially acceptable (Hawken, 1993).

There is a need for a change in the mindset within the business community to become environmentally responsible. According to Hawken (1993), an enduring society can only be created through a system of commerce and production where all activities are sustainable and restorative. Since virtually all business activities have environmental implications, businesses face the challenge of creating new company visions (Hooper & Rocca, 1991). Visions which encompass products and production processes that can be sustained by the environment (Shrivastava, 1996).

Dealing with environmental issues is of growing importance to companies. It is becoming increasingly essential to improve management practices within this area to remain competitive and within legislative requirements. This however, is only largely occurring within the 'big' business sector which has generally been held responsible for environmental problems such as, pollution, acid rain and depletion of the Earth's natural resources (Welford, 1994). Many large corporations, in response to increasing

environmental pressures, have included the environment as a primary concern within their companies. It was realised that the perceptions of the public, government and environmentalists towards a company's environmental performance would have significant consequences for a company's future (Buzzelli, 1991).

In large corporations greening one's business has become a competitive, ecological, economic, political and social necessity (Shrivastava, 1996). Companies such as Du pont, Dow Chemical, 3M, The Body Shop and McDonald's have thus become environmentally proactive, setting examples for other companies to follow (Buzzelli, 1991; Winter, 1995; Shrivastava, 1996). In South Africa the trend towards environmental responsibility is also becoming increasingly important for top companies such as, Eskom and South African Pulp and Paper Industry (Sappi) (KPMG & Industrial Environmental Forum (IEF), 1997). The public awareness of environmental issues in South Africa is thus growing, following international trends (Rensburg, 1996).

According to Winter (1988:11),

'The Sevesco, Bhopal, Chernobyl and Basle disasters have dramatically highlighted the fact that environmentally aware business management has become one of the key issues in the world today'.

Winter (1988) argues that although these disasters were spectacular events, the environmental damage was small compared with the combined damage caused daily by a large number of smaller polluters. The environmental impact of an individual small business however, is generally regarded by both the public and the business person as insignificant in comparison with the activities of large corporations. As a result little attention has been given to assessing the environmental impacts of small business and developing environmental awareness within the small business sector. Although large businesses are responding to environmental pressures, small businesses are 'lagging' behind in terms of their level of environmental activities (Welford, 1994). Small businesses must transform their activities to incorporate environmental concerns, as their combined impact on the environment is significant and contributes to the environmental problems of today.

In South Africa the small business sector is currently being promoted as it is regarded as an important vehicle to generate employment, address equity and stimulate economic growth (Department of Trade and Industry (DTI), 1995). The inevitable development of

the small business sector will result in increased environmental impacts. Addressing the need to incorporate environmental awareness and activities within small business, will thus increasingly become more important to achieve a business environment that is sustainable for both present and future generations.

According to Leon Bredenhann, director of the Department of Water Affairs for South Africa,

'It is true that in the small business sector we have no idea who is generating what, where or how much. It is a problem, and although urgent action is needed, it is not a priority' (Shaw, 1997:13).

In South Africa very little information is therefore known by the research establishment on the activities of small business. Their combined environmental effect can therefore only be assumed. The business community however, must not neglect environmental concerns in its focus to encourage small business development. Similarly, the promotion of environmental awareness within the small business sector must also not be regarded as a hindrance to development. The environmental issues surrounding this sector therefore need to be addressed.

In order to manage the environmental impacts of small business, it is necessary to initially establish the current environmental status of this sector in South Africa. An investigation into the environmental activities, attitudes and perceptions within small businesses in Edenvale was used to determine this current status. The aim of this research is thus to assess the level of environmental awareness and practices occurring within the small business sector. To achieve this aim, the study seeks the following objectives:

- to assess how small businesses view the significance of the environment with regards to their company;
- to determine the extent to which small businesses are aware of environmental issues pertaining to their company;
- to determine the factors which are influencing small businesses to be environmentally responsible;
- to consider the extent to which small businesses actively pursue environmental concerns;
- to investigate current environmental initiatives occurring within small businesses; and

- to investigate the possible future implementation of environmental practices within small businesses.

The research findings could be used to determine whether small businesses in South Africa are environmentally inactive, reactive, proactive or hyperactive (see pages 12-14 for definitions).

In South Africa, limited research has been undertaken on environmental issues within the small business sector. For this reason, it is difficult to speculate on the findings of the current research. However, certain expectations of the conclusions of this research may be formulated based on reviewed literature. It is therefore expected that the majority of small businesses will be environmentally inactive. Environmental concerns will therefore not be included within their business agenda's. It is further expected that small businesses will be unwilling to become environmentally responsible in the future, unless forced by Government or given incentives to do so.

CHAPTER 2

REVIEW OF RELEVANT LITERATURE

This chapter reviews literature on various aspects of business and the environment. It provides a theoretical framework in order to permit a clear understanding of the research aim and objectives. Section 2.1 discusses the relationship between business and the environment and addresses the need to develop sustainable business practices. Section 2.2 outlines the general meaning of the term green as used in the business context and characterises the different types of green businesses. It also briefly discusses the pressures and benefits which are forcing and/or encouraging businesses to initiate greening activities. Section 2.3 defines a small business and outlines the roles and contributions of the small business sector in South Africa. Section 2.4 discusses environmental standards and regulations effecting small businesses and the need to implement an environmental management system to effectively cope with them. Finally, section 2.5 reviews previous studies that are of relevance to the current research topic and to which comparisons can be made.

2.1 BUSINESS AND THE ENVIRONMENT

In discussing the relationship between business and the environment it is necessary to initially define what is implied by these two terms. According to Weston (1998:1) a business can be defined as,

'an activity conducted for the purpose of making a profit'.

The environment, in traditional management theories, is taken to mean the economic, social, technological, commercial and political environment (Shrivastava, 1996). Only recently have business managers begun to acknowledge the importance of the ecological performance of a business and therefore the need to consider the natural environment within business practices (Shrivastava, 1996). Although the term environment is a collective one, for the purpose of this study unless otherwise specified, the environment will be defined according to the *Oxford concise Science Dictionary* which states that the environment is,

'the physical, chemical and biological conditions of the region in which an organism lives' (Isaacs, Daintith & Martin, 1996: 255).

The physical, biological and chemical conditions within this definition refer to:

- renewable and non-renewable natural resources;
- natural ecosystems and habitats; and
- ecosystems, habitats and spatial surroundings modified or constructed by people, for example urbanised areas, and agricultural and rural landscapes (Department of Environmental Affairs and Tourism (DEAT), 1998).

Hawken (1993) argues that in the past it was not crucial to understand the relationship between business and a healthy environment as natural resources seemed unlimited. The whole development of industry during modern history was thus based on infinite possibilities and resources in the natural world (Warnock, 1997). Little attempt was made at making development sustainable and this resulted in the destruction and depletion of many of the Earth's natural resources (Jack, 1993).

Global environmental problems such as acid rain, global warming and stratospheric ozone depletion coupled with a surge of ecological disasters such as Chernobyl, Bophal, the Exxon Valdez oil spill and locally, Thor Chemicals, have increased the public awareness of the impact of business on the environment (Winter, 1995). According to Makower (1993:9),

'conventional wisdom has it that if you scratch the surface of just about any environmental problem, you'll find the corporate world lurking as its root cause'.

Large companies are often regarded as the cause of these many environmental problems, especially since most sensational environmental disasters are connected to large companies (Makower, 1993). It is however, more difficult to sensationalise and quantify the combined environmental effects of small businesses and to recognise their contribution to the environmental problems of today.

Whether a business is big or small however, it must be realised that all businesses, through the production of goods and services, effect the environment in two ways. First, business consumes energy and other resources and second, they produce wastes that

need to be disposed of (Makower, 1993). Business is thus often depicted as a primary source of environmental problems (Warnock, 1997). According to Hawken (1993:3),

'There is no polite way to say that business is destroying the world'.

Despite the growing awareness that business activities are a major contributor to environmental problems, there is the belief that there is an inherent fixed trade-off: ecology versus the economy (Makower, 1993; Porter & van der Linde, 1995). Many companies believe that protecting the environment, reduces the ability to do business. Similarly, to save resources means that jobs will be lost and conserving local resources means sending business abroad (Makower, 1993). The goals of business and the environment have thus seemed irreconcilable. Kleiner (1991) argues however, that industry cannot survive if the future quality of life is sacrificed simply for present economic gain. He further comments that the principles of economic growth and environmental quality reinforce each other in the long run.

A balance between environmental and economic needs has to be attained in order to maintain an acceptable standard of living for all people. This requires a change in the mindset of the business community. Hawken (1993) believes that business is beginning to transform as a result of biological and social pressure which can no longer be ignored. Business has begun to realise that it is not only ethically and socially responsible to become environmentally accountable, but it also makes sound business practice (Welford, 1994).

Increasingly it is being realised that since business is at the core of many environmental problems, it must be part of the solution (Hawken, 1993, Warnock, 1997). Cairncross (1990) argues that without the co-operation of the business community, existing environmental problems will not lessen. She suggests that with incentives, businesses can diminish the quantity of resources used to fulfil human needs. The idea of producing goods and services within strictly finite environmental and ethical limits is thus today seriously being confronted (Warnock, 1997). The business and environment debate, which over the last two decades has focused on 'what business is doing to the environment', is beginning to change its focus to 'what business can do for the environment'.

2.1.1 Business and Sustainable Development

Trade off decisions throughout the world have been made in favour of growth and against the environment. Sustainable development however, has made the pendulum swing back towards the environment (Pearce, Markandya & Barbier, 1989). The concept of sustainable development was introduced in a 1987 in a report entitled *Our Common Future* (referred to as the Bruntland Report) by the World Commission on Environment and Development of the United Nations. In its simplest form, sustainable development is defined as, a process of change 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).

The International Institute for Sustainable Development has recently developed a definition for sustainable development relating to business,

'For the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining and enhancing the human and natural resources that will be needed in the future' (Ullman & Fava, 1998:1).

The business sector, because of its use of resources and production of wastes, has an important role in play in the development of a sustainable society. In 1987 The World Commission on the Environment developed its action plan for sustainable development, called Agenda 21. This action plan was adopted at the Earth Summit held in Rio de Janeiro in 1992 (Warnock, 1997). The Plan challenged the business community to recognise environmental management as among the highest of priorities and as a key determinant to sustainable development (Warnock, 1997).

The concept of sustainable development is based on the premise that there is a trade off between economic growth and the sustainability of the environment. It therefore emphasises the interdependence between economic growth and environmental quality (Welford, 1994). According to Jonathan Hobbs (Co-ordinator of the Cleaner Production program for the United Nations Environmental Program) apartheid, sanctions, disinvestments, political uncertainty and violence have had an effect on both the economies and environments of southern Africa (Winter, 1995). Southern Africa thus faces a greater challenge in having to balance the need for improved environmental

responsibility within business and the need to alleviate unemployment and poverty (Winter, 1995). Jonathan Hobbs suggests that the political turbulence experienced, could have eroded the business communities commitment to environmental performance until it became a low priority. He further argues that there can be no political stability without sound economic growth and no economic growth without wise environmental management (Winter, 1995). Hobbs also suggests that,

'a prosperous and sustainable economy cannot be developed on a bankrupt environment; the environment cannot be the trade-off for economic development' (Winter, 1995:16).

Businesses need to emulate the economics of nature in order for sustainable development to succeed. In the natural economic system nature, through systematic recycling and reuse, ensures that renewable and non-renewable resources are not pushed beyond the critical limits required for sustainability. Natural resources are constantly cycled in, with wastes flowing back into the system (Thompson, 1998).

Sustainable development thus requires that business play numerous roles, namely: to develop substitutes for non-renewable resources; to develop innovations to reduce waste and use energy more efficiently; to design more environmentally friendly products; to educate consumers to become more environmentally responsible and; to process material in a manner that is also environmentally responsible. The environment must be valued as an integral part of the economic process. Business must therefore not compromise long-term environmental protection for short-term economic goals (Welford, 1994).

The relationship between business and the environment is an important one to understand if a sustainable future is to be obtained. The business community, which includes both big and small businesses, must realise that the environmental movement is not at odds with their interests, rather it is at odds with the slow pace of inevitable corporate change (Kleiner, 1991).

2.2 THE GREEN CONCEPT

Environmental pressure on companies is growing in parallel to public awareness of environmental damage. As a result, the demand for green products, manufacturing processes and services has grown dynamically (Winter, 1995). Makower (1993) suggests that the distinction between being 'green' or 'ungreen' may be a significant factor in how stakeholders, competitors and employees view a business in the twenty-first century. Makower (1993) further comments that being green could make the difference in a companies ability to remain competitive.

Despite this mounting pressure on business to become environmentally responsible, managers share no common understanding of what this might represent in their own companies (Kleiner, 1991). The question then arises as to what 'going green' should mean for business.

2.2.1 Defining Green

The use of the term green has been widely and loosely used. It has been applied to, or appropriated by, all manner of environmental and political positions over the past decade (Eckersley, 1992). When applying it to a business perspective, it is difficult to define accurately what makes a particular company green. According to Peattie (1992:25), they generally share at least some of the following common traits:

- *a concern for life on earth;*
- *a concern for future generations;*
- *a concern for other countries and their peoples;*
- *a desire to develop sustainable alternatives to environmentally destructive economic growth;*
- *a desire to protect the environment as part of a process of improving the quality of human life, globally and in the long term;*
- *a desire for a 'fairer world'; through more equitable patterns of trade and through open participatory government at every level of society;*
- *a desire to move away from the values of consumption and materialism towards the values of conservation, sharing , and self-reliance; and*
- *an emphasis on quality of life over material standards of living.*

These traits closely resemble principles for sustainable development. For a business 'going green' thus implies becoming sustainable so that all parts of the organisation accept both social and environmental responsibilities for the benefit of current and future generations.

According to Ryall and Pinder (1994: 87),

'A green company is one which integrates all environmental considerations into its policies, plans and practices. It minimises environmental impacts at every stage of operations, from design and processing to waste disposal. The environmentally responsible business must effect a change of corporate consciousness. All personnel, from chief executives to cleaners can and should be environmental managers and this should be expressed in the parts they play in reducing damage to the environment'.

This definition suggests that 'going green' requires a business to make organisational decisions from among various alternatives, each of which is more or less harmful to the environment (Prokop, 1993). Decisions regarding product design, manufacturing, packaging, transportation, customer use and ultimate disposal of a product should not only reflect environmental considerations but should also be driven by them (Hooper & Rocca, 1991).

The term greening reflects the many responses of companies to environmental concerns. These concerns include both the natural and human environments. Greening therefore incorporates not only environmental protection and conservation of resources, but also human health, technological risks, and worker and customer safety (Shrivastava, 1996). Green organisations are also responsible for ensuring that their employees are motivated and trained to become environmentally aware and informed green consumers (Prokop, 1993; Welford, 1994).

To 'go green', for all the many things that it entails, reduces to two basic goals; reduce waste and maximise resource efficiency (Prokop, 1993; Makower, 1993). Waste refers not just to raw materials but also to human effort, energy expenditure, facility use and money. Resources refers to both a company's resources (raw materials, energy, supplies, facilities, inventory, capital and people) and the Earth's resources (water, air, land, plants and animals). When a business reduces waste and maximises resource

efficiency, it can become more competitive and receive a better return on investments over the long run (Prokop, 1993; Makower, 1993).

The greening of a company does not start with a single demonstration of concern to produce an 'environmentally friendly' product, for example paper over plastic. Rather, it is embodied in a company's willingness to experiment continually with the life cycles of its products and with its activities (Kleiner, 1991). The process of greening thus requires innovation in order to meet the goals of waste reduction and resource efficiency.

It has mainly been large businesses, especially from the Northern Hemisphere, that have led the way in developing and promoting a green culture. They have been able to respond to green challenges as they often have the technology for cleaning up their products and production processes, and the money and time required for research and development (Warnock, 1997). Small businesses however, are often managed by entrepreneurs and by nature entrepreneurs tend to be more innovative, energetic and self-reliant (Welford, 1994). Small businesses can therefore be a great source of innovation. What seems to be preventing this innovation is the lack of recognition of the importance of green issues and the lack of skills and knowledge regarding greening activities (Welford, 1994).

In today's society being green thus requires a company to be innovative and move beyond the law and ahead of its industry and customers (Kleiner, 1991). A green business should meet its basic economic and legal obligations, respond to societal demands, and actively pursue long-term goals that are good for society and the environment (Pizzolatto & Zeringue, 1993).

2.2.2 Typology of Green Organisations

There are a number of different ways for a company to be green, as such it is necessary to characterise the various types of green organisations. Businesses can be classified in terms of their level of environmental awareness and activity. According to Ford (1992), one can imagine the ways in which companies respond to environmental pressures as lying along a spectrum of environmental activities. There are various 'shades' of organisational green lying along the spectrum, namely: inactive; reactive; proactive and hyperactive, as shown in Figure 2.1 (page 13).

information on how to proceed and are ultimately more concerned with other more pressing demands.

Ford (1992) defines environmentally proactive companies as companies that anticipate market or legislative changes. They plan ahead and see the need to change products and production processes (Welford, 1994). According to Ford (1992), these businesses have made a strategic commitment to stay ahead of the environmental challenge. They would not pursue profits if it lead to unacceptable environmental consequences, even if the activity was legal (Ford, 1992). Environmental issues such as, the health and welfare of their employees and their community, and the environmental impact of their own suppliers products and production processes are regarded as important (Ford, 1992). Although these companies are visionary, their visions are realistic and pragmatic with the ultimate success of the company being based on profits (Ford, 1992).

To the far right of the spectrum, shown in Figure 2.1 (page 13), are the hyperactive companies for whom improving the environment is their sole justification for being in business. Ford (1992) suggests that they are fundamentally anti-capitalists, pursuing environmental benefits rather than profits. They are likely to ignore future changes to laws or markets, on the assumption that their own environmental standards will be superior to any new changes (Ford, 1992). They also stimulate and provoke other companies to take more cognisance of environmental and other moral issues. These companies thus seek to provoke changes (Ford, 1992).

2.2.3 Green Pressures

Businesses have until recently generally been negligent towards their wider social, ethical and environmental responsibilities (Welford, 1994). There are many different pressures today however, that are either forcing or encouraging business to be environmentally responsible. The most basic of these pressures is public pressure which has resulted from the growing public awareness of environmental issues, such as pollution, recycling, noise and related problems (Clements, 1996). The issue of environmental improvement is being taken seriously by the public because it is now affecting peoples lifestyles (Pizzolatto & Zeringue, 1993). Armstrong (1994) claims that attitudes towards environmental issues are beginning to change with the growth of grassroots movements in South Africa.

Public pressure takes several forms, namely: consumer pressure, pressure groups and overseas pressure. Consumers are an important green pressure as the relationship between a business and its customers is of paramount importance. Green consumerism is growing in many countries with consumers becoming environmentally proactive in choosing their products. According to Peattie (1992), surveys have indicated that 75% of the population of developed countries regularly use environmental criteria in some purchasing decisions. Winter (1995) suggests that consumers are often even willing to pay a higher price for green products.

In South Africa however, green consumerism is still in its early phases with the majority of consumers being 'economical' or 'doubtful and confused' about their choice of product (Addai-Poku, 1997). Income plays a significant role in the consumers green expenditure in that they are not prepared to pay a higher price for green products (Addai-Poku, 1997). Hobbs (1990) suggests that South Africa's green consumer commitment tends to lag behind other more developed countries because of the first/third world dichotomy that exists. It is inevitable however, that South Africa will follow the path of other developed countries and as such green consumerism will be an important environmental pressure for the small business sector in the future.

The combination of increased public awareness and freedom of access to information on the environmental performance of companies, has intensified the media and green pressure groups interest in the greening activities of business (Welford & Gouldson, 1993; Welford, 1994). As more information on the combined environmental effects of small business is disclosed, this source of public pressure will influence the greening activities of small business. Welford (1994:8) argues that,

'it is pressure groups who have often been happy to expose the worst environmental practices of industry and who have pushed businesses to be more proactive'.

The introduction of treaties such as the General Agreement on Tariffs and Trade (GATT), have opened up international trading. In the world of free trade between nations there is a need for common environmental standards to be applied (Clements, 1996). The growing concept of international neighbourliness and the knock-on-effect of pollution have also endorsed the trend towards developing internationally acceptable systems of

environmental accountability (Nankervis, 1996). Environmental factors have changed international market structures and thus companies need to adopt international environmental standards (Merten, 1993). Increasingly the business community will thus have to take into consideration not only local environmental standards but also international demands for environmental regulations (Clements, 1996).

Merten (1993) reports that a number of South African business cannot compete with overseas as they do not comply with international environmental standards. South Africa has also recently regained access to international markets and having being disadvantaged by political sanctions would not want to substitute these with environmental sanctions (Hobbs & Ireton, 1996a). Overseas environmental pressures thus act as a driving force for companies to 'go green'.

Environmental regulations increasingly require large companies to review not only their own environmental performance but the production methods of their suppliers, which are often small businesses (Schreiber, 1996). Merten (1993) reports that many United States and European companies assess supplier environmental performances before reaching trade agreements. Increasing pressure will therefore be applied to small businesses as environmental management strategies are pushed along the supply chain (Welford & Gouldson, 1993). They will need to adapt to the demands made of them so as not to lose markets to competitors who can offer better environmental performance characteristics.

Governments throughout the world have been responding to the public's concern for the environment by developing policy frameworks for environmental protection. Public attitudes are influencing the movement towards stricter environmental legislation and standards (Winter, 1995). These standards will increasingly effect small business. Environmental laws are forcing business to think more widely as to how they do business and how to integrate environmental considerations into their activities (Welford, 1994). Companies also need to consider the increased risk of being held liable for environmentally harmful products or the failure to meet emission levels (Winter, 1995).

According to Wilson (1991), South African businesses are not responding to the opportunity to profit pro-actively by addressing environmental concerns. Their prime motivation for involvement in environmental issues is for self protection from stricter legislation. Most companies will only be as green as the governments make them. The

greenest company will therefore try to ensure that government policies set environmental standards at levels that they, but not their competitors, can match (Cairncross, 1990).

Business also has a responsibility towards their employees. It must be remembered that sensitivity of the general public to environmental issues also applies to the employees (Clements, 1996). The pressure to provide a healthy living environment is thus magnified within the workplace (Welford & Gouldson, 1993; Welford, 1994).

Environmental issues will continue to be a matter of public and governmental concern and business, which is identified as a major source of environmental problems, will face increasing environmental pressure. Although there are many different sources of pressures that will eventually force small businesses to 'go green', being green must not be seen as a barrier or a cost. Green pressures should rather act as catalysts for innovation, new market opportunities and wealth creation (Porter & van der Linde, 1995).

2.2.4 Green Benefits

Within business there is a need for continuous improvement to reduce costs and improve quality. According to Clements (1996), environmental concerns can be seen as part of the system for continuous improvement. Making environmental improvements can therefore often be the best way to increase a companies efficiency and profitability (Walley & Whitehead, 1994). Many companies throughout the world are thus voluntarily becoming proactive, launching ecological alternatives to drive competitors from the market. Companies have found that profits can be boosted by making and marketing products that give savings in water, raw materials and energy and reductions in waste disposal costs (Winter, 1995).

There are also many other benefits that can be derived from 'going green'. Immediate benefits include: reducing waste; avoiding costly disasters; and preventing penalties for non-compliance (McCallum, 1992b). Medium benefits include: an enhanced company image which assists in green marketing; improved public credibility; international and local acceptability; and according introduction of punitive legislation through self-regulation. Long term benefits include: conservation of resources; improved working environment, thus improved productivity; and a better economic climate in an improved environment (McCallum, 1992b). Therefore, there are a variety of reasons for 'going

green', which includes not only economic benefits but also ethical and social benefits which are necessary for developing a sustainable society.

2.3 SMALL BUSINESS IN SOUTH AFRICA

2.3.1 Defining Small Business

Small business defies easy definition, as such, there are numerous descriptions used throughout the world for different purposes. The problem of defining small business lies in the fact that small is a relative concept because of the diverse characteristics of various sectors of the economy (Lucas, 1992). Consequently in many countries there is no single official definition of small business, alternatively, there are numerous definitions used for example in taxation, industrial relations or government incentives (Barrow, 1993).

The term is generally used to describe 'one-man bands', such as neighbourhood shops and restaurants, whereas the term 'big business' is used for such giants as Sappi, International Business Machines (IBM), Shell and Eskom. In-between these two extremes fall businesses that could be seen to be either big or small, depending on the definition used to measure size (Barrow, 1993).

Definitions are based on a qualitative and/or quantitative criteria. The qualitative criteria relates to the issues of independent ownership, management and control of the businesses. The control element is of particular importance in excluding branches or franchises that may comply with the definition, but are in reality controlled by a larger enterprise (Lucas, 1992). Quantitative definitions rely on clearly defined statistical parameters which include one or more of the following: number of employees; sales; turnover; assets; capital; net worth; or even specific industry wide measures (e.g. amount of energy consumed or number of hotel rooms).

The most widely used criteria to describe small, micro and medium enterprises (SMMEs) is based on employment (Barrow, 1993; Yazman 1996). According to Hailey (1991), international definitions range from businesses that employ fewer than 10 employees, for example Western Samoa, to those employing fewer than 300, for example Japan. Schmidt (1990) found that in international studies, small businesses are seen as

enterprises employing fewer than 100 persons, while small and medium businesses are described as having less than 500 employees.

The first national definition of small business, the National Small Business Act (Act 102), was passed through parliament at the end of 1996. The Act describes a small business as a separate and distinct business entity. It cannot be part of a group of companies. If it does have subsidiaries and branches, they must all be included when measuring size. It must be managed by its owner or owners which can be a natural person, a sole proprietorship or partnership, or a legal person such as a closed corporation or a company (Department of Trade and Industry (DTI) & Ntsika, 1997).

The National Small Business Act also classifies small business into four categories: micro, which includes survivalists enterprises; very small; small and; medium (DTI & Ntsika, 1997)¹. The general term small business and the abbreviation SMMEs are widely used to separate this sector from big business (DTI, 1995). The Act uses quantitative criteria, namely: employment; turnover; and assets, to classify the businesses. For practical purposes the number of employees is the most important criteria used to define the small businesses (DTI & Ntsika, 1997).

For the purpose of this study the small businesses used in the sample population are defined by the National Small Business Act. For practical purposes however, only the quantitative criteria of number of employees is used, where small businesses are defined by 100 employee or less. The small businesses have not been classified into any of the four categories as described by the National Small Business Act.

2.3.2 Role and Contribution of Small Business

In recent years there has been a major resurgence of small businesses throughout the world (Barrow, 1993). Governments are recognising that this sector is the innovative backbone of most economies, providing services and products to customers (Barrow, 1993). This sector plays a critical role not only in the economic development of a country but also in its social development (DTI, 1995). The small business sector in South Africa however, has generally been neglected during much of the century following the discovery of diamonds and gold, and with the establishment of a modern, white capitalist

¹ A description of these four categories can be found in the National Small Business Act of 1996.

economy (DTI, 1995). South Africa has recently recognised the important role that small business can play to meet the challenges of its post-apartheid era (DTI, 1995).

Economic empowerment and growth are issues of high priority for the Government of National Unity of South Africa (DTI, 1995). There is a need to provide employment and generate sustainable and equitable economic growth. Small, medium and micro-enterprises have been recognised as vehicles to address these needs (DTI, 1995). Evidence suggests that small businesses have a high labour absorptive capacity; the average capital cost per job is also often lower than in big business; and its role in innovations are vital to meeting many of South Africa's economic challenges (DTI, 1995). The small business sector activates competition, exploits niche markets and generates more equitable wealth and employment, often unlike big business. It also plays an important role in meeting the need of previously marginalised groups for example, female heads of households, disabled people and rural families (DTI, 1995).

Currently this sector absorbs nearly half of the formally employed in the private sector and it contributes approximately 32.7% to the countries gross domestic products (DTI & Ntsika, 1997). There are also more than 800 000 SMMEs in the country and with the significant increase in the number of registered business since the 1994 elections, this sector will become more important for the future economy (DTI & Ntsika, 1997). The economic and social benefits of this sector cannot be underestimated and therefore its promotion and development has been seen as an integrated strategy to stimulate South Africa's economy (DTI, 1995).

As a business becomes larger, generally the impact of their activities on the environment becomes more visible and thus more prone to public criticism and eventual action (Stroup, Neubert & Andersen, 1987). The impact of a small business is thus not often a visible threat to the public. Welford (1994) argues however, that although the individual contribution of a small business towards environmental degradation may be small, the sectors combined impact is very large. Small businesses therefore, have an equally important role to play in the strive towards an environmentally sustainable economy.

According to Henry Laing, a chemical consultant who has conducted extensive research for the Government, the United States waste-related research is not concerned with companies with fewer than 10 employees. Laing observes however, that the economy in

South Africa is structured differently with small businesses often making up to 80% of all-players in a given industry. He suggests that it is the small businesses that are an environmental problem as the government is not 'watching' them. They are also not often involved in exporting their products and as such they do not have to adhere to international environmental guidelines (Shaw, 1997). The need to investigate the activities of small businesses is thus clearly needed.

2.4 ENVIRONMENTAL STANDARDS AND REGULATIONS

Clements (1996) suggests that environmental laws and regulations are not a recent trend. For example, in the United States the first environmental law, called the River and Harbours Appropriation Act or the Refuse Act, was enacted in 1899 and the Insecticides Act was passed in 1910. Many of the environmental issues that are confronted today have in fact been long-running concerns. What is a recent trend, is the popular and widespread interest in environmental issues. This interest in issues such as pollution, ecology and the environment lead to the emergence of the environmental movement near the end of the 1960s (Kuhre, 1995; Clements, 1996). This movement resulted in a large increase in the number and scope of regulations to protect the environment. According to Clements (1996:1),

'just about any company faces a growing number of environmentally related regulations'.

Government has an obligation to give effect to people's environmental rights contained in section 24 of the Bill of Rights in Constitution of the Republic of South Africa, 1996. Environmental legislation is therefore essential to set minimum standards to ensure that these rights are adhered to. South Africa is currently going through a re-evaluation of almost all environmental policies and institutions (Hobbs & Ireton, 1996b). The recent formulation of the White Paper on Environmental Management Policy for South Africa and the recent regulations regarding Environmental Impact Assessment (EIA) represent a change towards incorporating environmental concerns into strategic business planning. A National Waste Management Strategy is being is also currently being developed by the DEAT and the Department of Water Affairs and Forestry (DWAF). These regulations however, do not at present have any significant effect on the small business sector. Furthermore, critical to the success of command and control approaches is the

enforcement of non-compliance. This capacity for enforcement in South Africa is however lacking (Hobbs & Ireton, 1996b).

According to Hopewell (1996), legislators are determined to modify industry's behaviours through the use of regulations and incentives. Creating sustainable growth has been recognised as a long term goal and thus the impact of environmental legislation will continue in the future (Hopewell, 1996). The key elements of legislation that business managers need to recognise and plan for are:

- *polluter pays;*
- *integrated pollution control;*
- *inventory of emissions, discharges and waste;*
- *emission limits;*
- *process approval;*
- *product regulations;*
- *waste minimisation;*
- *environmental auditing;*
- *cradle to grave; and*
- *recycle and reuse* (Hopewell, 1996).

An over reliance on command and control legislation however, creates a reactive response from business which can inhibit innovation. Voluntary environmental standards or initiatives are therefore important to encourage companies to become environmentally proactive. They also prepare an organisation to handle present as well as future environmental issues (Kuhre, 1995). At the 1992 Earth Summit (UNCED), it was decided by the business council for Sustainable Development and the International Chamber of Commerce that voluntary standards were a more efficient means for pursuing environmental goals (Warnock, 1997). International regulations are more difficult to agree upon and enforce, compared with voluntary initiatives which could be more effective if market prices start changing to reflect environmental values, cost and scarcities (Warnock, 1997).

To cope with increasing voluntary and involuntary environmental standards, a business needs to develop a systematic environmental management system (Clements, 1996). A system that should ideally be consistent with sustainable development principles and be

integrated across all relevant functions within a company. Ullman and Fava (1998:1) describes an environmental management system as,

'a group of policies, standards, systems, practices and tools to increase an organisation's effectiveness in dealing with environmental matters'.

Implementing an environmental management system essentially involves identifying company activities that may have an impact on the environment and determining the significance of these impacts (Soutter & Mohr, 1996). These impacts need not be negative or detrimental; they could be positive or advantageous (Rensburg, 1996). This identification forms the foundation of the entire environmental management system.

A business also needs to look beyond its own direct impacts and consider those impacts on which it can have an influence. For example, contractors and supplier activities may impact on the environment and these activities should be included in the management system. Once activities that impact on the environment have been identified, they then need to be carried out under controlled circumstances. Targets then need to be set for environmental improvements (Soutter & Mohr, 1996). These goals and targets can be set through a company environmental policy.

To develop an effective environmental management system, many businesses are adopting the International Organisation for Standardisation (ISO) guidelines for environmental management standards. The ISO is a world-wide federation of national standards bodies from some 100 countries. Its purpose is to promote the development of standardisation and related activities in the world to facilitate international trade, as well as to develop co-operation in the intellectual, scientific, technological and economic field (Rothery, 1995). The results of this organisations activities are international voluntary agreements which are published as International Standards (Rothery, 1995). These standards can be used as a benchmark to compare existing management systems with the requirements of the ISO standards.

ISO 9000, which developed from the British Standard (BS) 5750, is the series of standards for quality management systems (Clements, 1996). Being certified proves that an organisation has the capabilities to manufacture a product according to an agreed upon level of quality (Soutter & Mohr, 1996). The ISO 14 000 series was developed to cover the areas of environmental management systems, environmental auditing, environmental performance evaluation, life cycle assessment and, environmental terms

and definitions. It represents a move towards integrating sustainable development principles into the free market economic system. This series of standards is thus an important step towards adopting a natural system of economics and facilitates business to undergo continuous performance improvements (Biggs & Nestel, 1998).

ISO 14 001, which developed from BS 7750, provides the specifications for the implementation of an environmental management system (Clements, 1996). It acts as a model to help companies become more effective and efficient to cope with the increasing number of regulations and internal needs relating to a business (Clements, 1996). The South African Bureau of Standards (SABS) has adopted this international standard as a national one called SABS ISO 14 001. Being certified assures a customer that the products or services being offered by a company, have been produced in accordance with universally accepted standards of environmental management (Kuhre, 1995).

ISO 14 001 was designed to be applicable to any organisation, whether it be small, medium or large; in a developed or a developing economy; in the public or private sector; or in an industrial or service sector (Soutter & Mohr, 1996).

To the small businesses person, implementing an environmental management system may seem like an expenditure of more money and time, especially since besides being the manager he or she also has to be involved in ownership and several other tasks. The environmental management system however, does not have to be a separate entity to an already established management system (Clements, 1996).

Quality standards and environmental standards share numerous common elements. If a company has already implemented ISO 9000 then with only a few modifications and additional requirements, that company can comply with ISO 14 001 requirements. (Rensburg, 1996). In addition, ISO 9000 certified organisations already possess an internal structure that will facilitate faster certification (Kuhre, 1995). According to Clements (1996), the biggest change may be to write a company environmental policy statement and control plans.

The amount of paperwork, time or money spent on developing and implementing ISO regulations is relative to the nature or size of one's business. For example, an environmental audit for a small business with two employees may take a day, compared

with a larger company which may require a week or more. According to Clements (1996:58),

'massive amounts of documentation are not required for a small business. Many times it will be able to combine work instruction into procedure. In addition, a small business will find that often its procedures can cover many requirements for ISO 14 001'.

In terms of the cost to implement ISO standards, there would be initial implementation cost. In the long run however, there should be cost saving due to avoided cleanups, fines or other costs related to environmental problems (Kuhre, 1995).

ISO 14 001 does not guarantee that an organisation is 'environmentally friendly' because ISO standards do not contain any performance requirements, such as, a maximum pH standard for effluent, or an upper limit of sulphur dioxide concentrations (Soutter & Mohr, 1996). Companies must therefore specify their own environmental performance goals, taking into account the company's effects on the environment and the views of its stockholders.

Environmental management systems may seem complicated and more appropriate for larger companies. New regulations and standards on environmental management will however, increasingly become more important to small businesses which, as already mentioned, are often suppliers for large companies which often have to adhere to local and international regulations or voluntary standards.

It is inevitable that environmental regulations or voluntary standards will in the future, not only continue to increase in number, but will also become more stringent as a result of international and local environmental pressures (Koechlin & Muller, 1992). According to Hobbs and Ireton (1996a), it is therefore in the interest of every business to monitor and track the progress being made in formulating and adopting environmental standards. Businesses that plan and prepare for environmental regulations, whether they are current or future regulations, will survive and prosper (Clements, 1996).

2.5 REVIEW OF PAST STUDIES

Following a literary survey, it became apparent to the researcher that very little work has been done to investigate the level of environmental awareness and practices in small businesses, or to assess the environmental impact of small businesses. The following section details two studies that are of significance to the current research and to which comparison can be made in Chapter 5.

2.5.1 The West Yorkshire Survey

Welford (1994), reports on the results of an on-going survey of 102 small/medium sized businesses (up to 100 employees) in West Yorkshire. All businesses were in the manufacturing sector. The research was conducted in 1992 and 1993.

The survey demonstrated that :

- There was a general lack of environmental activities such as the publication of an environmental policy and the implementation of environmental reviews, environmental audits or environmental management systems. This lack of activities reflected the low priority given to environmental management. The slight increases in the response rates for these activities, over the 12 month period, did however indicate that environmental issues were slowly being pushed down the supplier chain.
- The general view amongst the businesses survey was that environmental management would only become marginally more important over the next five years. There was some importance attached to environmental management which was seen to be encouraging.
- The majority of the businesses felt that there was no need to integrate green issues into their product profiles as many of the firms believed that their products were environmentally benign.
- There was the perception that customers were price sensitive and therefore not prepared to pay for a product with green credentials. The businesses were thus not in favour of producing 'environmentally friendly' products unless they could be sold at the same price.
- The number of firms belonging to associations addressing environmental concerns, although few in number, doubled over the 12 month period. This indicated that this

strategy could bring firms to think about environmental strategies that they could pursue in the future.

- There was a substantial increase over the twelve month period in the number of firms that thought that their customer demand for environmental responsibility would increasingly become more important. This customer pressure included retailer demands which increased over the two years, indicating that environmental performance was being pushed along the supplier chain.
- There were environmental pressures being exerted on businesses, even if they were not taken seriously. The pressures identified as important were, in decreasing order of importance for both years: local government; national government; customers; pressure groups; and other. The European community which ranked as the third highest pressure in 1992, was the most important pressure in 1993 as a result of the demands from the UK Environmental Protection Act.
- Competitive advantage was viewed as a driving force to adopt environmental management.
- There was a large increase in the number of firms using environmental attributes in their marketing as a means gaining access to new market.
- The key impediments to further environmental improvements was not so much the lack of skills and costs, but rather the perception that there were other priorities that needed to be dealt with, before environmental considerations could be taken into account.
- There was a contradiction between the wishes of the individual small business and the benefits to society. Environmental improvements were generally regarded as good for the planet but bad for business.

This survey demonstrated that although environmental issues were not of paramount importance to the small businesses, there were significant changes over the 12 month period. The increase in environmental activities indicated that environmental issues were moving up the business agenda. The results also indicated that a small number of small businesses were engaged in positive environmental action and this looked likely to increase in the future. The minority of the businesses were thus proactive and some were preparing for change. The majority of the businesses however, were not involved in environmental activities as they viewed environmental challenges as an irrelevancy. The survey concluded that unless forced to do so, these businesses would not become environmentally responsible (Welford, 1994).

2.5.2 The Top Companies Environmental Survey

A survey to assess the extent of environmental concern in top companies in South Africa was undertaken during May 1997 (KPMG & IEF, 1997). This survey was conducted by KPMG and the Industrial Environmental Forum of Southern Africa. A total of 200 top companies were sampled, which included South Africa's top 150 companies, by asset size. A 45% response rate indicated a high level of interest for environmental issues by South Africa's top companies. The findings, which confirmed this level of interest, are summarised as follows:

- Environmental issues were important for top companies as 76% considered the environmental issues to be of strategic concern and 86% expected environmental issues to become more significant over the next five years.
- The level of awareness of environmental implications of various policy-based documents was generally low, particularly regarding the new South Africa environmental policy and the environmental management standard ISO 14 001.
- Environmental awareness was on the rise among senior management, decreasing through middle management and was less prominent among non-managerial staff.
- Public perception concerning a companies level of environmental responsibility was regarded to be unimportant. Sixty-three percent of the companies however, stated that public opinion was likely to become a significant pressure for greater environmental responsibility within their companies. Other pressures cited as being significant were, in descending order of importance: Government policy and legislation; customer demands; and international trade.
- The extent to which environmental initiatives, such as an environmental policy or an environmental management system, had been implemented was considered to be encouraging.
- More than half the companies were contemplating to adopt various voluntary environmental standards including ISO 14 001.
- More than half the companies had their most senior person responsible for environmental issues on their board of directors. The rest were generally at senior management level.
- Three quarters of the companies had one or more staff with either full or part time environmental responsibilities.

- Approximately half of the companies drew support from associations addressing environmental issues. Two-thirds had employed external environmental consultants or specialists in their environmental improvement process.
- More than a third of the companies were budgeting in excess of R1 million per annum for environmentally-related expenditure.

This survey only targeted large companies and did not consider the combined environmental impact of small business. The results of this survey, for the purpose of the current research, can be used to compare the level of environmental activities between large and small businesses in South Africa.

CHAPTER 3

STUDY APPROACH

3.1 MOTIVATION AND CHOICE OF STUDY AREA

The town of Edenvale, which forms part of the Edenvale/Modderfontein Metropolitan Substructure in Gauteng, South Africa, was selected as the study area. It was ideally suited for conducting the research for numerous reasons.

Edenvale is considered to be an important decentralised nucleus of industrial development, office development and commercial and business development (North East Rand Metropolitan Council (NERM), 1996). According to statistical information on the Edenvale/Modderfontein Metropolitan Substructure, Edenvale has approximately 1 900 formal business, industrial and commercial erven (Du Toit, 1996). It thus has a well developed industrial, commercial and retail component.

Edenvale is centrally located, sharing its borders with Johannesburg, Kempton Park, Germiston, Bedfordview and Modderfontein (Figure 3.1, page 31). It is less than eight minutes away from Jan Smuts Airport and fifteen minutes away from the Johannesburg city centre. It also has good access roads and is bounded by a network of major national routes. This makes it the most accessible Metropolitan Substructure in Gauteng (NERM, 1996).

Edenvale's central location, combined with factors of land availability and the co-operation of the town council, which encourages the development of business, has stimulated the growth of business and industry in Edenvale (NERM, 1996). The economic strength of the town thus lies within the business sector.

Edenvale was therefore perceived by the researcher to be an ideal and accessible study area. One which would contain a large and diverse number of businesses from which a small business sample population could be selected. Edenvale also has an active Chamber of Business, from which information on the small businesses in the area could be obtained. This information facilitated in the selection of the sample population.



Figure 3.1 Location of the study area

Edenvale was also considered by the researcher to be representative of many other South African towns or metropolitan areas which have a strong focus on business and industry. Although the study focuses on only Edenvale, the issues addressed in this study can be applied to other small businesses in similar environments in South Africa.

3.2 RESEARCH METHODOLOGY

3.2.1 Data Collection

This research was an exploratory study to determine the level of environmental awareness and practice in small businesses in Edenvale. In order to develop an understanding of the relationship between small business and the environment, an extensive literary review was conducted to obtain secondary data relating to the research topic.

Primary data was then collected from a sample of small businesses using a self-administered standardised questionnaire (Appendix 1, page 72). Businesses were initially contacted by telephone to obtain their agreements to participate in the survey. The questionnaires were then distributed during the month of October 1997. When completed, they were returned by fax or collected by the researcher.

Structured questions were used in the questionnaire to collect quantitative data. These questions were used to determine the frequency of answers and to find relationships of answers to questions. Open-ended (unstructured) questions were also included to clarify the closed questions and to obtain any additional or relevant information (Bless & Higson-Smith, 1995).

An inherent disadvantage of the self-administered questionnaire is response bias. This is caused by respondents misunderstanding or misinterpreting the questions (Bless & Higson-Smith, 1995). To reduce the effects of this bias, respondents were provided with a telephone and facsimile number to contact the researcher if there were any queries regarding the questionnaire.

3.2.2 Questionnaire Construction

The questionnaire consisted of eight sections (A through to H), each of which focused on different environmental issues affecting small businesses. To identify these issues a literary review, which included previous environmental business surveys, was undertaken. The sections in the questionnaire enabled the data to be more easily analysed and interpreted, to more accurately assess the level of environmental awareness and practices in the small business sample population.

The eight sections in the questionnaire covered the following issues:

- Section A focused on the importance that small businesses place on the environment. This section was used to determine the respondents' perceptions towards future trends in environmentalism and their beliefs regarding the longer term effect on business.
- Section B focused on the level of environmental awareness within a company. This section was used to assess the extent to which small businesses have been educated or made aware of environmental issues relevant to their business.
- Section C focused on environmental initiatives. This section was used to identify the type of environmental activities taking place within small businesses.
- Section D focused on environmental market forces. This enabled the researcher to identify green pressures that are forcing and/or encouraging small businesses to become environmentally responsible.
- Section E focused on various aspects of environmental training. This section was used to determine the extent to which training had been implemented in the small businesses and the possible barriers preventing its implementation.
- Section F focused on environmental reporting. This section was used to assess the extent to which small businesses report on environmental requirements.
- Section G focused on environmental advice. This section enabled the researcher to determine the extent to which small businesses seek external environmental advice.
- Section H focused on future environmental initiatives. This section enabled the researcher to assess future environmental activities within the small businesses sector.

3.2.3 Sample Design

A list containing information on: the names; number of employees; contact telephone numbers; and descriptions of the businesses registered with the Edenvale Chamber of Commerce, was used to locate the formal small businesses. This list was obtained from the Edenvale Chamber of Business.

From this list, the sample population was chosen on the basis of two criteria. First, for practical reasons, the number of employees had to number 100 or less. Second, the business had to be managed by its owner or owners and thus be a separate and distinct business entity. These two criteria correspond with the study's definition of a small business (page 19). Annual turnover and assets were not taken into account due to the sensitive nature of obtaining this kind of information. Since the businesses selected were formal, it was assumed that illiteracy and understanding English would not present a problem.

Stratified random sampling, as described by Bless and Higson-Smith (1995), was undertaken to select the sample population. The sample population was divided into different strata according to the nature of their business. This was done to include a spread of economic sectors to ensure that a representative sample, reflecting the general population of small businesses in South Africa, was obtained.

The following categories (strata) were used: Engineering; Manufacturing and Services; Wholesale and Retail Suppliers; Construction; Chemical (which included paint and dry-cleaning businesses); Advisory and Consulting Services, and Printing and Publishing. Within each of these categories, simple random sampling was performed. The total sample size for the study consisted of 82 small businesses.

3.2.4 Data Analysis

Data from the completed questionnaires was then captured on the computer package 'Excel' and statistically analysed. For all structured questions, the percentage of respondents or responses were calculated for easier interpretation. Answers to open-ended questions were analysed qualitatively.

A test of proportions was performed on the questions that required either a yes or no reply from the respondents. This test was used to determine if there was a significant difference between the proportion of respondents that answered yes and the proportion that answered no. The test was calculated using a 5% significance level ($\alpha = 0.05$) and it was a two-tailed test.

The equation used for the test of proportions (adapted from Groebner & Shannon, 1985; Rees, 1991) was as follows:

$$Z = \frac{(py - 0.5)}{\sqrt{\frac{py(1 - py)}{n}}} \quad (3.1)$$

where, py = proportion of respondents that answered yes
 n = number of respondents

The null hypothesis (H_0) was that there was no significant difference between the proportion that answered yes and the proportion that answered no ($H_0: py = 0.5$). The alternative hypothesis (H_A) was that there was a significant difference in the proportion that answered yes and the proportion that answered no ($H_A: py \neq 0.5$).

The null hypothesis was rejected if Z , as calculated in equation 3.1, was > 1.96 or < -1.96 . If the Z value was < 1.96 or > -1.96 , then there was not enough evidence to support the H_0 .

3.2.5 Limitations of the Research

The research focused on the formal small businesses within Edenvale. It did not investigate the environmental perceptions and environmental activities of small businesses from informal or rural areas. Inferences made through the analysis of the questionnaire thus cannot be used to give an all-encompassing analysis of the attitudes of South African small businesses towards environmental issues.

CHAPTER 4

PRESENTATION OF RESULTS

4.1 SAMPLE DESCRIPTION

A total of 40 small businesses, or 49% of the total sample population, responded to the questionnaire. According to Bless & Higson-Smith (1995), the response rate for self-administered questionnaires is generally very low. Bright (1991) suggests that a normally acceptable response rate level lies between 60 to 70 % however, he further suggests that with the self-administered questionnaire the response rate is usually in the vicinity of 40%. The study's response rate is thus statistically acceptable.

A good spread of economic sectors was obtained with the completed questionnaires. As shown in Figure 4.1, the Manufacturing and Services (25.0%), Wholesale and Retail Suppliers (22.5%), Advisory and Consulting Services (17.5%), and the Engineering sectors (12.5%) were the four most forthcoming in their responses.

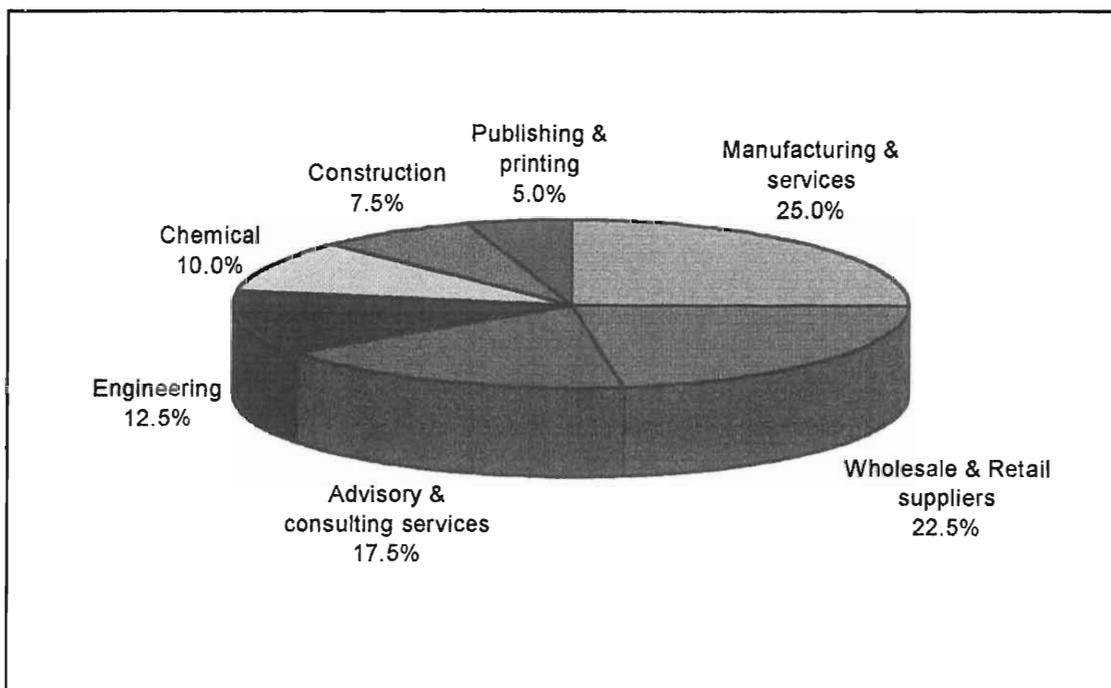


Figure 4.1 Percentage distribution of the economic sectors obtained in the survey

4.2 QUESTIONNAIRE RESULTS

This section details the findings of the forty completed questionnaires. The results are presented in the same order as used in the questionnaire and are given as percentages. The number of respondents or responses to the questions are given in Appendix 2 (page 78).

4.2.1 Environmental Importance

In **question one**, respondents were asked to indicate the importance of environmental issues for their company. The results, as shown in Figure 4.2, indicate that the majority (45%) of the small businesses regarded the environment as fairly important. Since only a quarter considered the environment not to be important, the survey indicates that generally, small businesses do regard environment issues as having a degree of importance for their business.

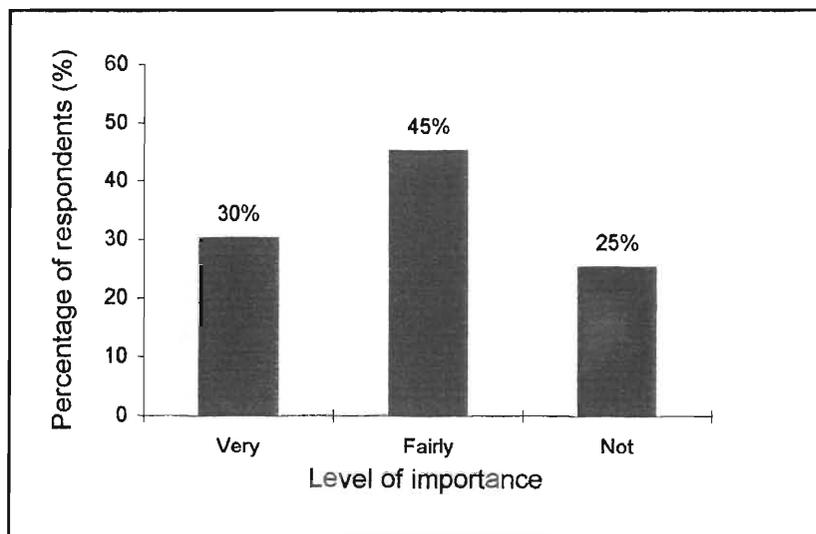


Figure 4.2 Level of environmental importance among the respondents

In **question two**, respondents were asked to indicate how they thought environmental issues would change their company in the next five years. The results, shown in Figure 4.3 (page 38), indicate that the majority (60%) of respondents agreed that the significance of environmental issues for their business would remain the same, while the minority (2.5%) expected the effects of environment issues to decrease. Only

approximately a third of the respondents (35%) thought that the effects of environmental issues would increase for their businesses.

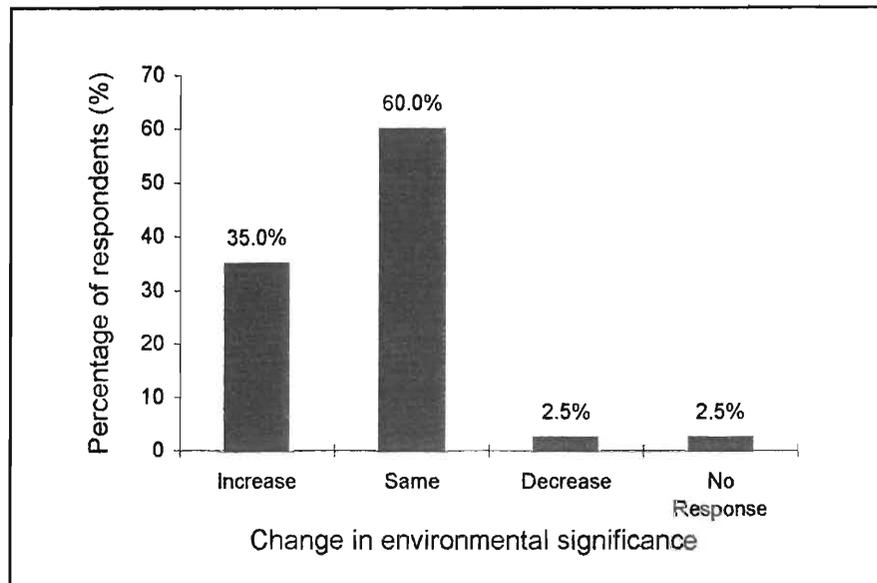


Figure 4.3 Change in the significance of environmental issues for small businesses in the next five years

In question three, the respondents were asked whether or not they supported moves towards stronger environmental laws and legislation. Ninety percent of the respondents answered yes and 10% answered no. Using the test of proportions, the null hypothesis (stated on page 35) was rejected at the 5% level of significance ($Z = 8.43$, $n = 40$). From this it can be determined that in general, small businesses support moves towards stronger environmental laws and legislation.

When the respondents were asked to explain their answers, the majority that answered yes, were of the opinion that their surrounding environment was beginning to 'look like a dumping ground'. The environmental problems most cited were: inadequate refuse disposal; contamination of streams by chemical spills; sewerage and industrial effluent; and air pollution. The respondents felt that stronger legislation was needed to control business activities to prevent these environmental problems and to pressurise people into becoming more aware of their own environmentally damaging activities. The need for a policing body to implement, monitor and control the laws or legislation was also suggested.

Those respondents that answered no to question three, either gave no explanation as to why they did not support stronger environmental legislation, or they were of the opinion that environmental legislation did not affect their company. The latter of these respondents regarded their business activities as not damaging to the environment .

4.2.2 Environmental Awareness

In question four, respondents were asked to indicate the level of environmental awareness within their business. The results, as shown in Figure 4.4, indicate that the majority of the respondents in the total sample (72.5%) indicated that their level of awareness was medium to low. Less than a third of the respondents (27,5%) regarded their company's environmental awareness as high.

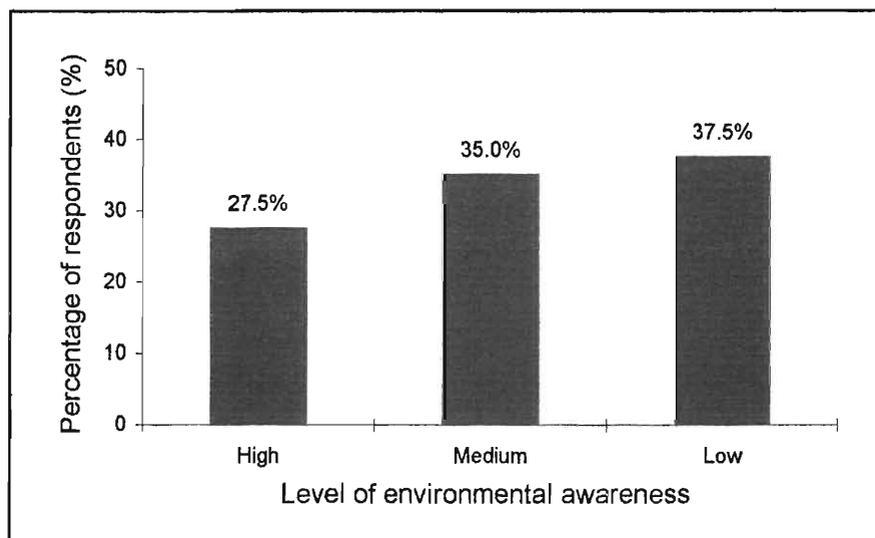


Figure 4.4 Level of environmental awareness among the respondents

In question five, respondents were asked to indicate their level of environmental awareness of various policy-based documents and voluntary environmental standards, are shown in Figure 4.5 (page 40). These results indicate that the awareness of all the documents was generally very low, particularly regarding the new South African Environmental Policy and the Environmental Management Standard ISO 14 001. Respondents had the greatest awareness for the Quality Management Standard ISO 9000.

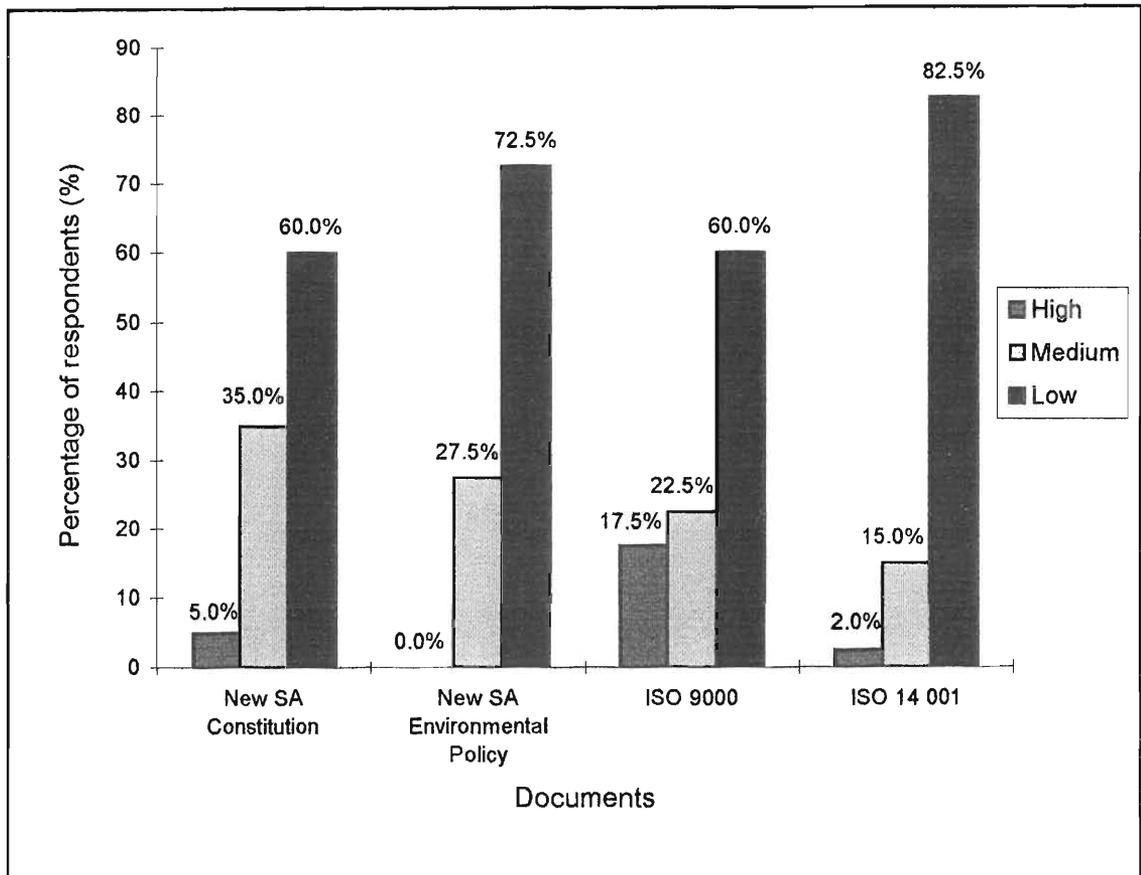


Figure 4.5 Environmental awareness of the various policy-based documents and voluntary environmental standards

In question six, the respondents were asked whether or not they were aware of the implications of the Occupational Health and Safety Act 85 of 1993 for their business. Sixty-two percent of the respondents answered yes and 38% answered no. The test of proportions indicated that there was not enough evidence to reject the null hypothesis (stated on page 35) at the 5% level of significance. As such there was no significant difference between the proportion that answered yes and the proportion that answered no ($Z = 1.48$, $n = 39$). This implies that in general, the level of awareness regarding this act is approximately 50%.

In question seven, respondents were asked whether or not their company had identified any business activities that may have either a negative or positive impact on the environment. Thirty-four percent of the respondents answered yes and 66% answered no. Using the test of proportions, the null hypothesis (stated on page 35) was rejected at the 5% level of significance, ($Z = -2.05$, $n = 38$). This implies that in general, small businesses have not identified any positive or negative activities which may impact on the environment.

The respondents that answered yes to question seven, were then asked to identify the positive or negative environmental impacts of their activities. In general, the negative impacts identified involved the handling and storage of dangerous chemicals, for example mercury. A few businesses were also aware of the negative impacts of their effluent emissions on the environment. Only one respondent mentioned the negative impacts from their vehicle emissions.

Positive impacts included: the installation of pollution control measures, such as scrubbers and filters; the use of recyclable materials in their products; and the use of 'environmentally friendly' products. Many of the respondents that answered no to question seven, were of the opinion that their business activities did not have any impact on environment.

In question eight, businesses were asked whether or not they were aware of the positive benefits of implementing an environmental management system. Ten percent of the respondents answered yes and 90% answered no. Using the test of proportions, the null hypothesis (stated on page 35) was rejected at the 5% level of significance ($Z = -8.18$, $n = 39$). This implies that in general, small businesses are not aware of the positive benefits of implementing an environmental management system.

The respondents that answered yes to question eight, were then asked to specify these benefits. In general, the respondents recognised that an environmental management system was important for attaining a better working and living environment. This in turn could lead to a more prosperous future. Only one respondent realised the economic benefits to be gained from implementing an environmental management system, such as saving paper and earning money for recycled products. These responses however, indicate that the respondents were only aware of a limited number of benefits and were not fully aware of all the advantages to implementing an environmental management system.

4.2.3 Environmental Initiatives

In question nine, the respondents were asked whether or not their company had an elected health and safety representative. Eighteen percent of the respondents answered yes and 82% answered no. Using the test of proportions, the null hypothesis (stated on

page 5) was rejected at the 5% level of significance ($Z = -5.02$, $n = 38$). This implies that in general, small businesses do not have elected health or safety representatives.

In question 10, respondents were asked to indicate which environmental initiatives their business had implemented. Respondents could identify as many activities as were applicable. The percentages of responses are shown in Figure 4.6. These results indicate that overall, the general level of environmental initiatives within the small business sample population is low.

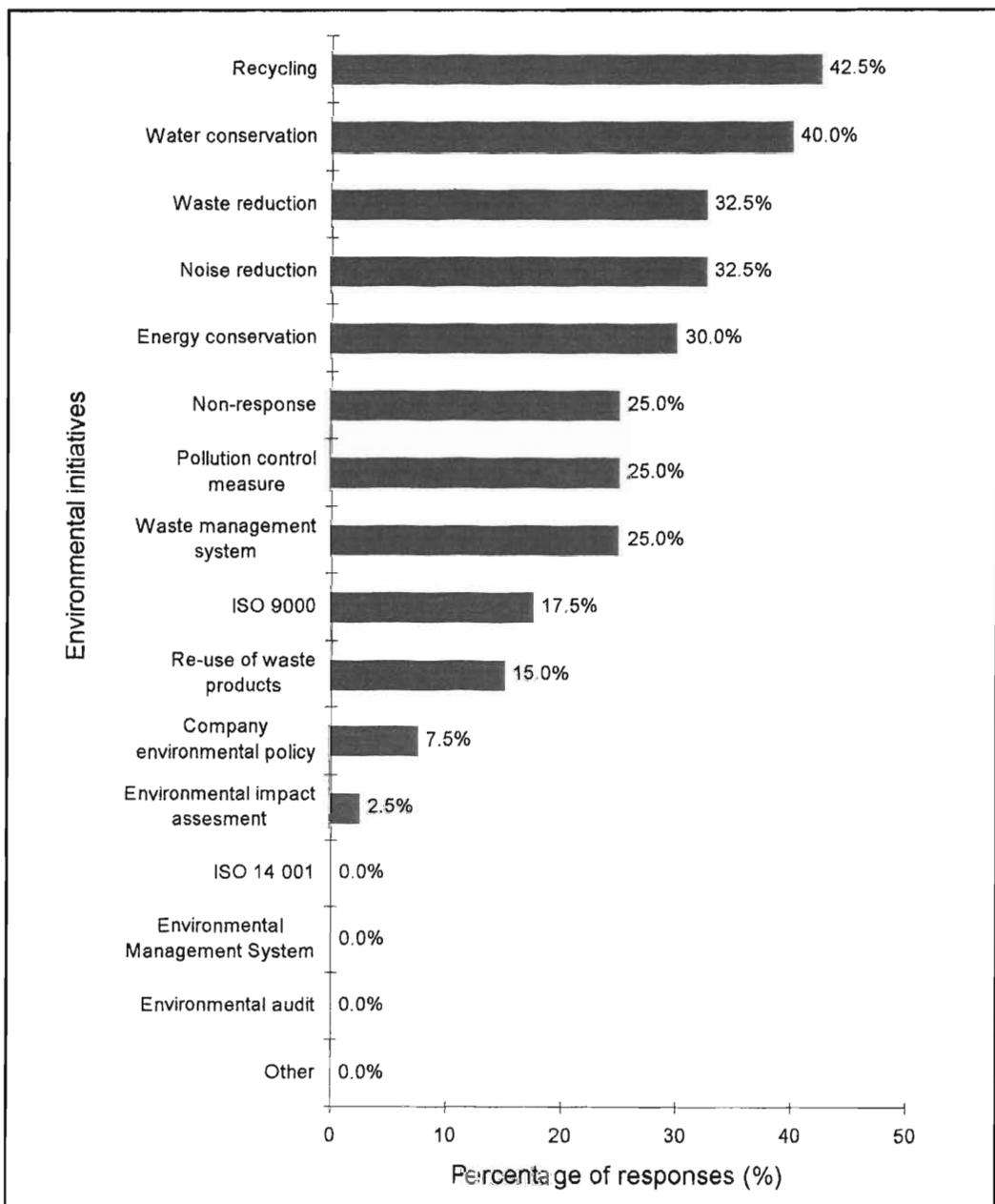


Figure 4.6 Implementation of environmental initiatives by the respondents

Only 2.5% of the businesses had performed an environmental impact assessment and none had performed an environmental audit or had implemented either ISO 14 001 or an environmental management system. Twenty-five percent of the respondents did also not respond, which implies that in general a quarter of small businesses are not implementing any of the above environmental initiatives. The results for recycling (42.5%), water conservation (40%), waste reduction (32.5%) and noise reduction (32.5%) however, although all less than 50%, can be seen to be encouraging.

4.2.4 Environmental Market Forces

In question 11, the respondents were asked to indicate which factors (green pressures) would cause greater environmental responsibility within their company. The respondents could again identify as many factors as were applicable. The percentage of responses are shown in Figure 4.7 (page 44).

Government policy or legislation and customer demands (both 45%), were cited as the most significant pressures for small businesses to integrate environmental considerations into their companies. More than a quarter of the respondents viewed public opinion (30%), voluntary environmental standards (27.5%), and local health and environmental inspectors as significant forces of change. Supplier demands (7.5%) was viewed as the least significant pressure for change.

Only the respondents who had implemented environmental practices into their businesses needed to answer questions 12a and 12b. Forty-eight percent of the respondents answered these two questions.

In question 12a, respondents were asked whether or not the introduction of environmental practices had resulted in increased production costs. Forty-seven percent of these respondents answered yes and 53% answered no. The test of proportions indicated that there was not enough evidence to reject the null hypothesis (stated on page 35). Therefore there was no significant difference between the proportion that answered yes and the proportion the answered no ($Z = -0.23$, $n = 19$). This implies that in general, there is a 50% chance of increased production costs when a small business introduces environmental practices.

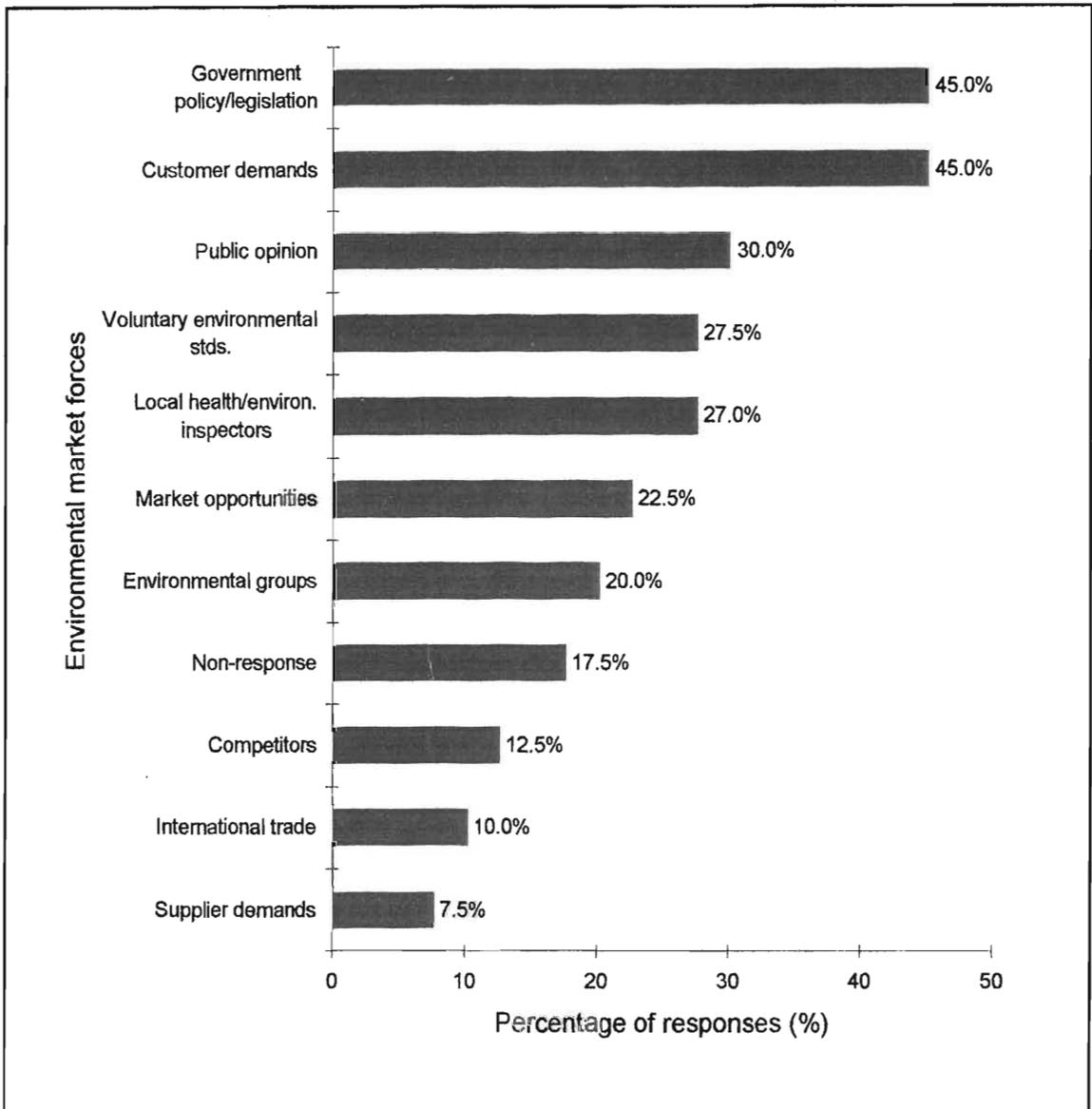


Figure 4.7 Most significant pressures to encourage the implementation of environmental initiatives

Question 12b determined the extent to which environmental practices had improved sales within the small businesses. The results, shown in Figure 4.8 (page 45), indicate that the majority of respondents felt that there was only a low improvement in sales (74%). This suggests that economic benefits are not at present a significant pressure to encourage small businesses to implement environmental practices.

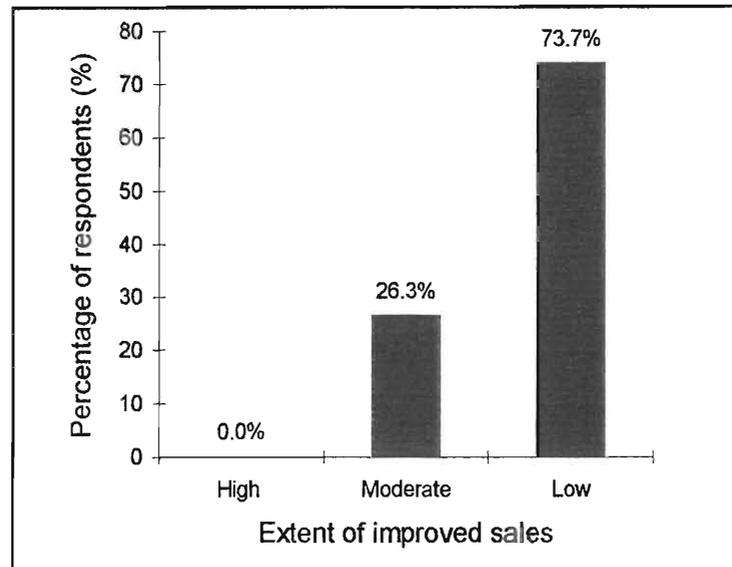


Figure 4.8 The extent to which sales have improved with the introduction of environmental practices

4.2.5 Environmental Training

In question 13, respondents were asked whether or not their company had any persons engaged in full or part time environmental responsibilities. Five percent of the respondents answered yes and 95% answered no. Using the test of proportions, the null hypothesis (stated on page 35) was rejected at the 5% level of significance ($Z = -12.7$, $n = 39$). This implies that in general small businesses do not have a person or persons involved in environmental responsibilities within their company's.

When the respondents were asked to explain their answers to question 13, the majority of that answered no, were either of the opinion that their businesses were too small, or that the need for someone to deal with environmental responsibilities was not relevant to their type of business. A few respondents also viewed environmental responsibility as part of health and safety management activities or general 'good house keeping'. The need for a person involved in environmental responsibilities was thus of no importance. Those respondents that answered yes, regarded environmental responsibility as a part-time requisite for all senior management on a supervisory basis.

In question 14, respondents were asked to indicate whether any employees had attended training in the fields of safety, environment, health or risk management. The results, shown in Figure 4.9, indicate that the majority of employees in the small businesses had not attended any training in the above mentioned fields since there was a very high non-response rate (62.5%). Of the total sample, environmental training accounted for the minority of attendance (2.5%), compared with health which represented the majority (17.5%) of attendance.

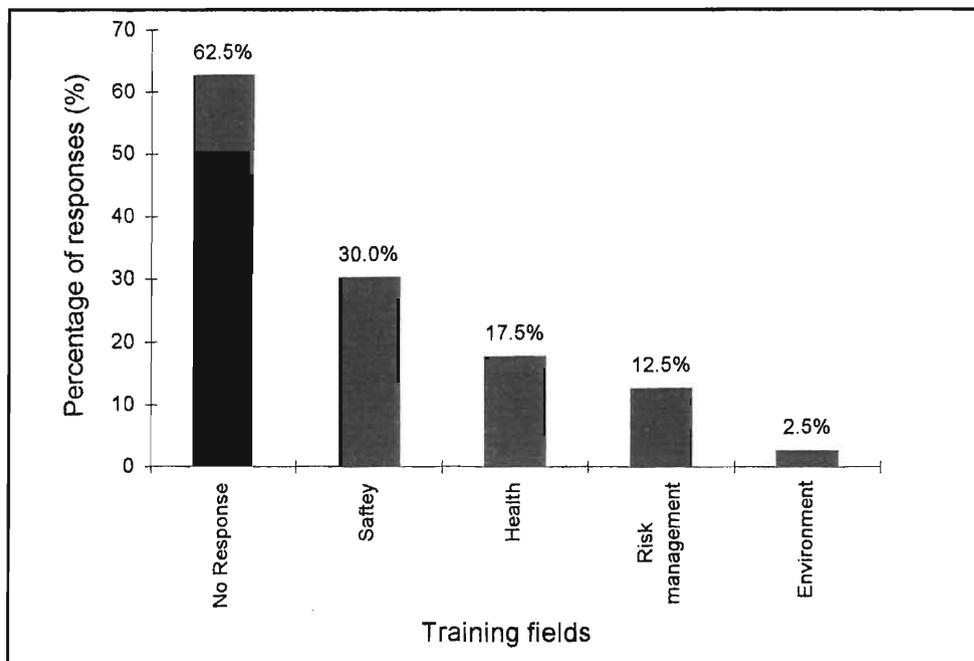


Figure 4.9 Representation of training courses among the respondents

In question 15a, respondents were asked whether or not their company would consider training any of their employees in the fields stated in question 14. Forty-eight percent of the respondents answered yes and 52% answered no. The test of proportions indicated that there was not enough evidence to reject the null hypothesis (stated on page 35). Therefore there was no significant difference between the proportion that answered yes and the proportion the answered no ($Z = -0.32$, $n = 40$). This implies that in general, there is a 50% chance that environmental training will be implemented within small businesses.

The respondents were then asked to state their reasons if they had replied no to question 15a. The respondents could identify as many of the given factors as were applicable. The results, shown in Figure 4.10 (page 47), show that the majority of the respondents

(85.7%) felt that training was not necessary for their business. Time and cost factors were not considered to be major obstacles to training employees, as the response rates for both categories were fairly low (19%).

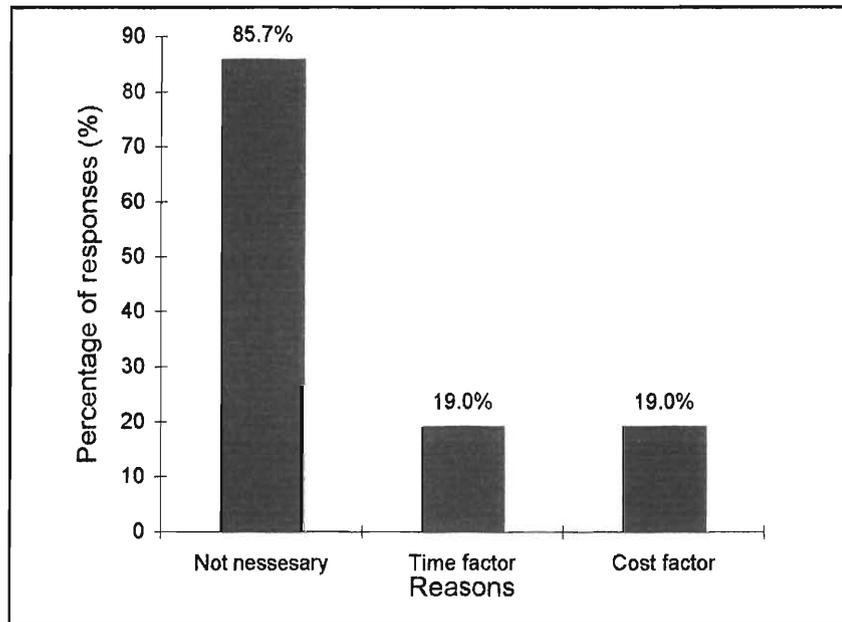


Figure 4.10 Reasons for not implementing environmental training

4.2.6 Environmental Reporting

In question 16, respondents were asked whether or not there were any requirements with which their company had to comply. Twenty-two percent of the respondents answered yes and 78% answered no. Using the test of proportions, the null hypothesis (stated on page 35) was rejected at the 5% level of significance ($z = -4.17$, $n = 40$). This implies that in general small businesses do not comply, or are simply not aware of any environmental requirements with which they have to comply.

When asked to specify these requirements, the majority of the respondents simply complied with company requirements, such as ISO 9000, design requirements or requirements regarding the correct use, storage and disposal of dangerous chemicals. Government legislation, in particular with regards to waste disposal methods, was also cited.

In question 17, respondents were asked if their company had to report on any requirements. Ten percent of the respondents answered yes and 90% answered no. Using the test of proportions, the null hypothesis (stated on page 35) was rejected at the 5% level of significance ($z = -8.43$, $n = 40$). This implies that in general, small businesses do not report on environmental requirements.

Only one of the respondents who answered yes, mentioned that their business had to report to the Department of Health and Atomic Energy Conservation approximately every 18 months. The results thus indicate that generally if there are requirements, they are company requirements which are reported for use within the business.

4.2.7 Environmental Advice

In question 18, respondents were asked whether or not they had ever consulted an environmental consultant. Only 2.5% of the respondents answered yes and 39 (97.5%) answered no. The null hypothesis (stated on page 35) was rejected at the 5% level of significance ($Z = -19.2$, $n = 40$). This implies that in general, environmental consultants are not consulted by small businesses.

In question 19, the respondents were asked whether or not their business was a member of any association addressing environmental issues. Fifteen percent of the respondents answered yes and 85% answered no. The null hypothesis (stated on page 35) was rejected at the 5% level of significance ($Z = -6.2$, $n = 40$). This implies that in general, small businesses are not members of associations concerned with environmental issues.

4.2.8 Future Environmental Initiatives

In question 20, respondents were asked whether or not their companies were planning to follow any voluntary environmental policies or practices in the future. Eighteen percent of the respondents answered yes and 82% answered no. The null hypothesis (stated on page 35) was rejected at the 5% level of significance ($Z = -5.02$, $n = 38$). This implies that in general, small businesses are not planning to 'go green' in the future.

Those respondents that answered yes, planned to voluntarily initiate the following activities in the future: comply with ISO 9000 regulations, water conservation, recycling and waste management. One respondent mentioned that in order to 'go green', facilities need to be provided for, or be available from the local government. For example, separate waste disposal facilities for different waste materials.

CHAPTER 5

DISCUSSION

The vision of any company is a broad term which represents the values, beliefs, missions and philosophy which together guides its activities (Shrivastava, 1996). A green vision acknowledges the importance of the natural and human environments of a company (Shrivastava, 1996). According to Shrivastava (1996), if concern for the environment is absent from a company's vision, it will also tend to be absent from other organisational elements, such as products, policies, strategies, training, resource allocation, technologies, systems, recruitment and programs. This chapter will therefore evaluate the research results presented in Chapter 4, to investigate the extent to which small businesses have incorporated a green vision within their companies and thus the extent to which environmental concerns have been integrated into their business activities. In addition, reference will be made to the literature reviewed in Chapter 2 and in particular, to the West Yorkshire Survey and the Top Companies Environmental Survey described in section 2.5. This will enable the research results to be more accurately interpreted and evaluated.

The level of importance to which environmental issues are placed within a company can be considered as a preliminary indication of the level of environmental activities within that business. The results for section 4.2.1 (page 37), which focused of the level of environmental importance within small business, indicated that the majority of respondents (75%) regarded the environment as fairly to very important for their business. This environmental concern however, tended to be primarily focused on environmental problems that were external to their business. This is evidenced by the responses given to question three, where although there was an overwhelming support in favour of increased environmental laws and legislation, the general reasoning for this support was based on the fact that the environment surrounding their business was beginning to resemble a dumping ground. As such, controls were needed to curb the environmental effects of 'other' businesses. According to McCallum (1992a:3),

'A global problem perceived by an individual as small becomes a large problem when it comes through the window into that individual's sitting room'.

The responses therefore indicated that the environment was important, primarily because environmental problems were visible in their surrounding area (or 'sitting room'). Many respondents recognised the negative environmental effects that business had on the environment. They however, did not believe that their business contributed to these problems. Rather other, bigger, businesses were the cause of the environmental problems and were therefore responsible. It was interesting to note that the respondents gave no consideration or thought to the combined environmental impact of small business. Concern for the environment within the small business sample was therefore not a top priority.

The results from this research concur with the results from the West Yorkshire Survey where the environment was considered by the majority of the small businesses not to be of paramount importance (Welford, 1994). Although the results reflected the low priority given to environmental management, the West Yorkshire Survey also suggested that the significant changes in attitude over the two year period towards the environment, was seen to be encouraging (Welford, 1994). Similarly, in this study the fact that some importance was attached to the environment can also be regarded as encouraging. It is of concern however, that a quarter of the respondents regarded the environment as of no importance to their business.

The results from question two (page 37) indicated that the majority of respondents thought that the significance of environmental issues for small businesses would not change over the next five years. It is thus probable that the attitude and behaviour of the majority of small businesses, towards environmental concerns, will not alter significantly in forthcoming years. Change will occur only if there is a need to react to green demands made by Government or customers. These results therefore indicated that the majority of small businesses were environmentally inactive, in that green issues were assumed to be a 'passing phase' which would not effect their activities.

In comparison, the Top Companies Environmental Survey findings indicated that the significance of environmental issues would increase for top companies over the next five years (KPMG & IEF, 1997). This suggests that while large companies within South Africa recognise the strategic importance of environmental issues for their companies, small businesses are 'lagging' behind. A green vision cannot be incorporated successfully without recognising the importance of the environment for a business. Small businesses

are thus generally lacking the initial key factor, that of concern for the environment, which is necessary to install a 'green culture' within their companies.

The results for section 4.2.2, which focused on environmental awareness, found that the majority of the respondents general level of awareness of environmental issues in their organisation was low to medium (Figure 4.4, page 39). Their level of awareness of specific environmental issues relating to their businesses however, was very low, with the exception of the Occupational Health and Safety Act.

The level of awareness regarding ISO 14 001 was very low compared with the level of awareness for ISO 9000. These results correspond with the results from question 10 which focused on the implementation of environmental activities (Figure 4.6, page 42). The results to this question indicated that none of the respondents had implemented ISO 14 001 whereas 17.5% of the respondents had implemented ISO 9000. ISO 14 001 however, was only published at the end of August 1996, whereas ISO 9000 has been adopted in South Africa for a much longer period of time. As such, awareness for ISO 9000 would tend to be larger. ISO 9000 also relates to aspects of product quality which is of greater concern to small businesses than environmental issues, which as already discussed is not a top priority. It is encouraging that a small percentage of businesses were implementing ISO 9000 since ISO 14 0001 can be easier to implement if ISO 9000 has already been adopted by a company (Chapter 2, page 24).

The proportion of small businesses aware of the implications of the Occupational Health and Safety Act was approximately 50 %. This level of awareness was much higher than that for ISO 9000, ISO 14 001, the South African Constitution and for the New South African Environmental Policy (Figure 4.5, page 40). This is possibly because the Act is a legal requirement where employee numbers exceed 20, whereas the ISO standards are voluntary. This demonstrates the importance of laws and legislation's to increase environmental awareness within small business. The majority of the small businesses however, did not have an elected health and safety representative.

The results from the Top Companies Environmental Survey indicated that the awareness of the new South Africa constitution, the New Environmental Policy and ISO 14 001 was also low on the whole, but particularly for the new South Africa environmental policy and ISO 14 001 (KPMG & IEF, 1997). Although the results concur with Edenvale's results, in that the trend is the same amongst the different documents, the overall level of

awareness was still lower for the small business respondents. For example, the top companies had a high level of awareness (26%) regarding the ISO 14 001 standard, compared with the Edenvale study in which a high level of awareness accounted for only 2% of the respondents.

It was interesting to note the poor awareness of the New South African Constitution, which since its adoption in 1996, has been well publicised and made readily available to the general population.

The results to question seven (page 40) indicated that the majority of the respondents had not identified any of the impacts that their business may have on the environment. Without a business being able to recognise its environmental impacts, an environmental management system cannot be implemented and solutions cannot be found to counteract any adverse impacts. Furthermore, although a company may have no visible impact, for example in the service, advisory or consultancy sectors, these businesses can still cause pollution through their packaging and transporting (Welford, 1994). The majority of the small businesses were thus environmentally inactive, in that they tended to ignore the impact that their business had on the environment.

An interesting observation however, was that the responses to question seven indicated that chemical companies, or companies which produced large amounts of effluents tended to be more aware of their impact on the environment. These types of activities require stricter control through environmental legislation and the South African Bureau of Standards (SABS). For example, the Hazardous Substance Act, No 15 of 1973 which requires that all hazardous waste must be identified and disposed of safely and in the correct manner, or the Atmospheric Pollution Prevention Act, No 45 of 1965. The respondents were generally not aware of their impacts or duties, unless it was necessitated by law. They were therefore not taking the initiative to become socially responsible or environmentally proactive. This implies that a small proportion of the small businesses were environmentally reactive companies.

The majority of respondents were also not aware of the positive benefits of implementing an environmental management system, or of the opportunities of becoming green. Furthermore, none of the respondents had implemented an environmental management system. The results indicated that this was an area which was clearly less understood by small business managers. This again suggests that the majority of the small businesses

were environmentally inactive in that they did not see the possible benefits or opportunities in becoming green. Environmental responsibility was simply regarded by the respondents as an extra pressure and a new problem to solve.

The overall low level of environmental awareness among the respondents is an important reflection on the lack of provision of environmental information and advice given to small businesses. Information necessary to educate businesses not only on their impact on the environment, and how to become green, but also the benefits associated with being green. For example, economic benefits from savings in water, energy, raw materials and reductions in waste disposal (Winter, 1995). The provision of information is therefore a vital key to developing environmental responsibility among small business.

The relative lack of action in implementing environmental initiatives within the small businesses also reflected a low concern for the environment (Figure 4.6, page 42). According to Welford (1994) and Made (1994), an important indicator of a company's commitment to the environment is the publication of an environmental policy. A policy defines targets and objectives which act as goals to improve the environmental performance of a business (Welford, 1994; Made, 1994). The general lack of concern for environmental issues was reflected by the small percentage of respondents (7.5%) that had published an environmental policy. Although there were some activities where the results were encouraging, such as recycling, water conservation, and waste and noise reduction, what progress has been made appears to be driven by specific business-related factors and not out of concern for the environment.

These results concur with the findings from the West Yorkshire Survey which also concluded that the lack of environmental activities reflected the low priority given to environmental management (Welford, 1994). According to Welford (1994), the results in the West Yorkshire Survey are not surprising if one considers the barriers to implementing some of the strategies, such as environmental audits, in terms of time, money and the expertise required.

In the Top Companies Environmental Survey, the extent to which environmental initiatives had been undertaken was found to be very encouraging (KPMG & IEF, 1997). Comparing the current research results with this survey, indicated that small businesses in South Africa were not as active in implementing environmental activities as large businesses. For example, 53% of top companies had an environmental management

system compared with 0% in the small business sample, and 62% of the top companies had published an environmental policy compared with only 7.5% in the small businesses sample population.

The disparities in the results between small and large companies could again indicate barriers in terms of time, money and expertise needed to implement environmental initiatives. Although many small businesses may lack the capital or the expertise necessary to implement the strategies of larger firms, barriers can and need to be overcome through innovation, in order that small business can also move towards sustainability (Welford, 1994). As mentioned in Chapter 2 (page 12), what seems to be preventing this innovation is a lack of knowledge. Furthermore, in South Africa, as in the rest of the world, large companies have been subjected to greater public pressure due to their more visible activities. This pressure has been significant in forcing companies to become more environmentally responsible. Since little is known of activities and effects that small businesses have on the environment, consequently public pressure on this sector is negligible.

In the West Yorkshire Survey, over the two year period, commitment to environmental strategies, such as publication of an environmental policy, or the importance attached to environmental management, increased significantly (Welford, 1994). The explanation given for this increase, was that environmental issues were being highlighted on the business agenda in response to pressures from customers (Welford, 1994). In South Africa the growing importance of the environment for large business will begin to effect smaller businesses as environmental concerns are 'pushed' along the supply chain. As mentioned on in Chapter 2 (page 16), the pressure to comply with international environmental standards will require large companies to increasingly review the production methods of their suppliers.

These finding suggest that although the majority of small businesses were environmentally inactive, there was a small proportion that were beginning to address environmental issues through the implementation of environmental initiatives. This small proportion were therefore environmentally reactive, responding to green pressures.

The results for section 4.2.4 (page 43), which focused on environmental market forces, indicated that there were environmental pressures being exerted on small businesses. These pressures were not however being taken seriously since all the results were less

than 50% (Figure 4.7, page 44). The most significant pressures were government legislation, customer demands and public opinion. An interesting observation was that the respondents regarded customer pressure and government legislation or policy as both being equally significant as a force to become environmentally responsible. In comparison the results from the Top Companies Environmental Survey and the West Yorkshire Survey, indicated that customer pressure was not as significant a force for change with respects to Government regulations.

The current research findings thus demonstrates a relative lack of concern from Government regarding the combined environmental effects of small business in South Africa. In the 1995 White Paper on the Development and Promotion of Small business in South Africa, no mention is made of environmental regulations for small business. This is possibly because of the need within South Africa to stimulate economic growth to alleviate unemployment through the promotion of small business. There is also a lack of environmental regulations for small businesses and a lack of capacity to implement, monitor and enforce regulations, as mentioned in Chapter 2 (page 21). The focus of Government environmental pressures is thus extended primarily to the large business sector.

International trade was not cited as a significant environmental pressure within the small business sector. This result was not surprising as already discussed in Chapter 2 (page, 21) small businesses are not often involved in exporting their products and as such are not directly affected by international environmental standards. However, the results from the Top Companies Environmental Survey indicated that international trade was a significant pressure among large companies (KPMG & IEF, 1997). As international pressure on big companies increases, so the environmental pressure will be 'pushed' down the supply chain to indirectly effect small businesses. The pressures being forced along the supplier chain however, results in companies being reactive to change, whereas ideally small business also needs to be encouraged to be proactive (Welford, 1994).

Competition was not seen as a driving force in the adoption of environmental management techniques. Central here is the perception in business of what their competitors will be doing in the future. Since the environmental was not generally regarded as a major concern within the small businesses, many of the respondents do not expect or believe that their competitors are going to change and become green. As

such there is no need for them to become environmentally responsible. This is a typical characteristic of both environmentally inactive and reactive companies.

In the market place survival and success is linked to the ability of companies to be flexible and to respond to the new green pressures put before them (Welford & Gouldson, 1993; Welford, 1994). How a business responds to the environmental pressures may be a leading indicator of its overall competitiveness. According to Porter & van der Linde (1995) a truly competitive industry is more likely to take up new environmental standards as a challenge and thus respond to it with innovation. For this to occur, small businesses need to realise the incentives and opportunities that going green may entail for a company. The current research findings however, suggest that not only do they not realise these opportunities exist, but that the economic benefits have also not yet been realised (Figure 4.8, page 45).

The results for section 4.2.5 (page 45), which focused on environmental training, indicated that small businesses do not generally have a person engaged in full or part-time environmental activities. The reasons cited for this, namely that the business was too small or that their activities were not damaging to the environment, again reflects a low awareness and priority towards environmental issues. It also reflects the general mindset within the small business community that large companies are responsible for adverse environmental impacts. It is encouraging however, that a small proportion of the small businesses do have a person involved in part-time environmental responsibilities, especially since it was regarded as a responsibility among senior management who can more appropriately take action to implement environmental standards.

The results also suggested that the small businesses were not actively pursuing training in the fields of health, safety, risk management or the environment. This is evidenced by not only the low percentage of response rates for each of the fields but also by the high non-response rate (63%).

According to Craffert, Fourie & Hoogervorst (1997) environmental training is the key to successful environmental practices and systems in companies. The provision of environmental training is also an indication of a companies attitude towards the environment. The results indicate that environmental training within the small businesses was almost non existent, as only 2.5% of the respondents had attended training within this field. Those respondents who indicated that they would not consider environmental

training, generally felt that it was not necessary for their business. This again illustrates the fact that the small businesses did not consider the environmental issues to be important for their businesses.

The barriers preventing the implementation of environmental training can be related to a low priority being given to environmental issues within small business as time and money were not considered to be primary obstacles (Figure 4.10, page 47). This low environmental priority can also be associated with the lack of environmental awareness. It is also important however, to recognise that approximately half of the respondents indicated that they would consider environmental training. This result is encouraging.

The results from the questionnaire clearly indicate that in general, small businesses are not actively pursuing environmental concerns. Porter and Van der Linde (1995) suggest that regulations have an important role to play in creating pressures that will motivate business to innovate, alert and educate companies regarding resource inefficiencies. The responses to section 4.2.6 (page 47) however, indicated that generally there were no specific environmental regulations that the small businesses had to report on. As such, this pressure to actively pursue environmental concerns was absent.

The findings from section 4.2.7 (page 48), which focused on environmental advice, indicated that there was almost no contact between the small businesses and environmental groups or any organisation addressing environmental issues. Furthermore, only one of the small businesses had consulted with an environmental consultant. This lack of communication between small businesses and environmental associations will hinder the process of greening small businesses in the future.

The majority of small business respondents were not planning to implement environmental policies or practices in the future. This result again reflects the perception that the significance of environmental issues will stay the same for small business in the forthcoming years. There were a small proportion of respondents that were planning to increase their environmental activities and this is encouraging.

There is a clear trend running throughout the results and that is the low significance of environmental concerns within small business. This general lack of environmental concern began with the non inclusion of the human and natural environment in a company's vision. As suggested by Shrivastava (1996), this lack of environmental

importance can be reflected in business activities. As shown in this study, the majority of the small businesses activities do not include environmental practices.

This study thus indicates that there is generally no systematic environmental approach being taken by small business. According to Welford (1994), a systematic approach, is necessary to successfully improve environmental performance. What is lacking within small business is a real commitment to the environment, based on sound environmental principles. This commitment is needed to move small business towards a sustainable position, rather than to maximise short-term profitability.

Small businesses however, simply want to survive in the current economic climate in South Africa which is volatile at present due to the high levels of unemployment and poverty. As such, there appears to be other priorities that need to be met before environmental concerns can be fully addressed. This is especially so since there is little environmental pressure from either Government, customers or the general public and little enforcement of environmental regulations. The concern for short term objectives, such as cash-flow and short-term profits, therefore takes preference over incorporating sustainable development principles into their business practices. According to Hobbs & Ireton (1996a) however, any company wishing to operate in the 1990's and beyond must take its environmental performance as seriously as it does its commitment to technical and financial competence.

The West Yorkshire Survey, which was also conducted in a difficult economic climate, surmised that once other business objects had been met, then business would be willing to address the environmental agenda. In this study, however, a quarter of the small businesses do not as yet regard the environmental as important. This poses a future threat for the greening of small business in South Africa.

The way in which a company deals with the environment is an indication of its ability to turn changing circumstances into business opportunities. An obvious problem inherent in the small business sector was the lack of information concerning environmental strategies and lack of capital to invest in environmentally friendly techniques to effectively change their practices. There are many things a company can do, at very little cost, if they could integrate environmental considerations into everyday activities. Clearly there is a role for government and local authorities to support innovative development and provide forums where information can be obtained. This would assist small

businesses in changing their current 'nongreen' practices into environmentally friendly ones that foster sustainable development.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

The World Business Council for Sustainable Development (WBCSD) reports that since the 1992 Rio Earth Summit, significant environmental progress has been made within the business community (WBCSD, 1997). These positive changes, made towards shaping the sustainable agenda, are occurring predominantly within the big business sector. They have not been directed towards the small business sector. This can clearly be evidenced by the study's research results.

The results indicated that the level of environmental awareness and practice was very low. The majority of the small businesses were not aware of the extent of environmental issues in their own operations and were therefore not actively pursuing environmental concerns. As such, it can be concluded that the majority the small businesses were environmentally inactive. Only a small proportion of the businesses were environmentally reactive, being characterised by a general piecemeal involvement, addressing environmental issues only when necessary.

Furthermore, the research indicated that the businesses were generally unwilling to become environmentally responsible in the future, unless forced by Government or given incentives to do so. This study indicates that smaller enterprises are therefore followers rather than leaders. They are lagging behind large corporations by not accepting their social and environmental responsibilities. According to the definitions of green, given in Chapter 2, the majority of the small businesses could therefore not be characterised as green organisations.

It is important to recognise that the environment is a complex entity and as such solutions are seldom simple to find. The following recommendations however, suggest ways in which the small business sector can transform from being environmentally inactive, to becoming environmentally proactive.

- The study indicates that there was a general lack of awareness regarding the strategic value that can be drawn from good environmental management. For example, awareness of environmental management tools or procedures. This poses

as a barrier for greening small business. A clear way forward would be through co-operation and networking. This entails creating links between small firms and firms and institutions (Welford & Gouldson, 1993). By networking and co-operating beyond the firms boundaries, managers can learn from other peoples experiences and errors. It would also enable businesses to gain access to finance and information. Since time is often a limiting factor to becoming green, if small businesses work together, this barrier could be overcome. Large corporations could also play a vital role in the networking framework by taking a 'big brother approach'. This approach enables skills in larger companies to be mobilised to assist smaller businesses, especially those that supply them, in developing awareness and capabilities in environmental management. Mutually beneficial partnership can therefore be created. Furthermore, there is a need to educate and provide training in universities, business schools and adults education programs to help prepare tomorrow's business leaders for the sustainable development challenges of the next century.

What is required is a framework, to set up a support and information structure to achieve such advantages. In this regard, a study could be undertaken to establish the key factors necessary for creating linkages to increase the flow of information to small business. A further recommendation would be to establish waste minimisation clubs, which would bring together people from different business sectors to increase their environmental awareness and to solve common environmental problems.

- The small business sectors must begin to share the commitment to the environment and to the principles of economic growth and sustainable development. This can be achieved through the realisation that there is a need to move away from a fractured view of environment and development issues to a holistic view of business and sustainable development. This requires an attitudinal or conceptual change among the small business sector. The old attitude which regards conformance with environmental norms as a separate and incremental activity, not as part of the design process or operational procedures, has to change. A key to this change is again entrenched within the need to increase the level of environmental awareness among small businesses.
- The lack of Government environmental regulations and enforcement of these regulations is a further barrier preventing the greening of small businesses. It is therefore necessary to explore the role that Government can play using market

mechanisms and introducing new economic instruments (or amend existing ones) to encourage actions that work towards the goals of sustainable development. There is also a need for Government to provide incentives and assistance to promote environmental compliance among small businesses, rather than simply to tighten up on legislation or to impose heavier fines. For example, the Environmental Protection Agency (EPA) in the United States in 1996 implemented a policy on compliance incentives for small business (EPA, 1998). This policy is intended to promote environmental compliance by providing incentives for small businesses to participate in on-site compliance assistance programmes and to conduct environmental audits (EPA, 1998). A study could therefore be undertaken to investigate the extent to which Government or local authorities could assist small businesses in this type of program.

- Public pressure has been recognised as a significant force to mobilise business to become environmentally responsible. The small business sector however, has not been subjected to this pressure. One of the reason for this lack of pressure is due to the uncertainty surrounding their combined environmental impact. This lack of public pressure is a further barrier hindering the greening of small business. According to the WBCSD (1997), one cannot wait for science to provide proof that a certain action produces, or definitely does not produce a given environmental result. It is therefore recommended that a study be undertaken to assess this combined impact. This could focus attention on the small business sector, creating the necessary public pressure. The uncertainty surrounding the combined current and future impact of small businesses on the environment also points to the need for a precautionary approach rather than a 'wait and see' attitude.
- The extent to which environmental training had been implement within the small businesses was found to be very low. A study could therefore be conducted to establish the specific form and curriculum of environmental training which would be of relevance to the small business sector. This would build the small businesses capacity to effectively manage future environmental challenges.
- It is also recommended that a study be done to assess the level of environmental awareness and practice in small businesses situated within informal or remote areas.

There is a tendency for business to be called upon to do everything: to create wealth and jobs, clean up the environment, deliver 'development', satisfy all stakeholders, fight corruption, educate, provide health care and generally stabilise and improve society (Schmidheiny, Chase & DeSimone, 1998). According to Schmidheiny *et al* (1998), obviously business cannot do all these things, however, by 'looking harder' business can find its appropriate role for each of these activities. With the right encouragement, pressure and advice from all other parts of society, small businesses can be encouraged to be innovative, which is a key requirement to becoming green. Innovative entrepreneurs with a keen business acumen and who work towards the goals of sustainable development will profit.

According to Hawken (1993:xvi) a critical point that one needs to remember is that, *'our human destiny is inextricably linked to the actions of all other living things. Respecting this principle is the fundamental challenge in changing the nature of business'*.

With this point in mind, the small business sector must become environmentally proactive, taking responsibility for their actions as the environment is an issue which business can no longer afford to neglect.

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APPENDIX 1
QUESTIONNAIRE AND ACCOMPANYING COVER LETTER



Dear

I am a Masters student at the School of Environmental and Development and I am currently working on my thesis, 'Greening Small Business'. I would very much appreciate it, if you could fill in the attached questionnaire which forms as part of my data collection. The questionnaire will be held in the strictest confidence.

Thank you for your time.

Yours sincerely

Ciranne Dobeyn

ENVIRONMENTAL QUESTIONNAIRE FOR SMALL BUSINESSES

This survey will be used to assess the level of environmental activities within small businesses in the Edenvale Industrial area. Please take a moment to fill it in. This survey will be held in the strictest confidence and will be used for research purposes only.

A) ENVIRONMENTAL IMPORTANCE (tick the appropriate box)

1) How do you place the importance of environmental issues within your company?

Very important
 Fairly important
 Not important

2) How do you foresee the significance of the effects of environmental issues changing your company in the next 5 years? Do you expect their significance to

Increase
 Remain the same
 Decrease

3) Do you support moves towards stronger environmental laws and legislation?

Yes No

Please explain _____

B) ENVIRONMENTAL AWARENESS

4) In your opinion, what would you say is the general level of environmental awareness in your organisation?

High
 Medium
 Low

5) What would you say is the level of awareness in your organisation about the procedures and environmental implications of the following documents?

New SA. Constitution

High
 Medium
 Low

ISO 9000

High
 Medium
 Low

New SA Environmental Policy

High
 Medium
 Low

ISO 14 001

High
 Medium
 Low

6) Are you aware of the implications of the Occupational Health and Safety Act 85 of 1993 for your business?

Yes No

7) Has your company identified any of your activities which may have a negative or positive impact on the environment?

Yes No

If yes: explain positive _____
: explain negative _____

8) Is your company aware of the positive benefits of implementing an environmental management system?

Yes No

If yes, please specify _____

C) ENVIRONMENTAL INITIATIVES

9) Does your company have elected health and safety representatives?

Yes No

10) Which of the following environmentally related activities or initiatives, if any, has your company implemented or is implementing?

ISO 9000	<input type="checkbox"/>	Pollution control measures	<input type="checkbox"/>
ISO 14 001	<input type="checkbox"/>	Energy conservation	<input type="checkbox"/>
Environmental management system	<input type="checkbox"/>	Noise reduction	<input type="checkbox"/>
Waste management system	<input type="checkbox"/>	Water conservation	<input type="checkbox"/>
Company environmental policy	<input type="checkbox"/>	Recycling	<input type="checkbox"/>
Environmental impact assessment	<input type="checkbox"/>	Re-use of waste products	<input type="checkbox"/>
Environmental audit	<input type="checkbox"/>	Waste reduction	<input type="checkbox"/>
Other	<input type="checkbox"/>		

If other, please specify _____

D) ENVIRONMENTAL MARKET FORCES

11) Which of the following factors, if any, would you regard as significant pressures to cause greater environmental responsibility within your company?

Government policy/legislation	<input type="checkbox"/>	Public opinion	<input type="checkbox"/>
Customer demands	<input type="checkbox"/>	Environmental groups	<input type="checkbox"/>
Supplier demands	<input type="checkbox"/>	Market opportunities	<input type="checkbox"/>
International trade	<input type="checkbox"/>	Voluntary environmental standards or agreements	<input type="checkbox"/>
Competitors	<input type="checkbox"/>	Local health or environmental inspectors	<input type="checkbox"/>

12) If your company does implement environmental practices, then please answer the following (a&b):

a) Has the introduction of environmentally friendly practices by your company resulted in increased production costs?

Yes No

b) To what extent has the introduction of environmentally friendly practices by you company improved your sales?

High
Moderate
Low

E) ENVIRONMENTAL TRAINING

- 13) In your company are there any persons engaged in full-time and/or part time environmental responsibilities?

Yes No

Yes or No, please explain _____

- 14) Indicate whether any employees of your company have attended training in:

Safety	<input type="checkbox"/>	Health	<input type="checkbox"/>
Environment	<input type="checkbox"/>	Risk Management	<input type="checkbox"/>

- 15a) Would your company consider training staff in any of the above mentioned fields stated in question 14?

Yes No

- b) If no, what would be your reasons?

Time factors	<input type="checkbox"/>	Cost factors	<input type="checkbox"/>
Not necessary	<input type="checkbox"/>		

F) ENVIRONMENTAL REPORTING

- 16) Are there any environmental requirements which your company has to comply with?

Yes No

If yes, what are they? _____

- 17) Does your company have to report on the above requirements?

Yes No

If yes, to whom? _____

and how often? _____

G) ENVIRONMENTAL ADVICE

- 18) Has your company ever employed the expertise of an environmental consultant?

Yes No

- 19) Is your company a member of any association addressing environmental issues?

Yes No

If yes, who? _____

H) FUTURE ENVIRONMENTAL INITIATIVES

- 20) Is your company planning to follow any voluntary environmental policy or practices in the future?

Yes No

If yes, please specify _____

Respondents details (please complete each section)Title and name of person completing
this questionnaire: _____Name of company: _____

Position: _____

Address: _____

Tel. No: _____

Fax. No: _____

No. of employees in company: _____

If you have any queries to this survey, please contact Ciranne Dobeyn, tel no.(011) 7060734 or fax queries to (011) 800 4360.

APPENDIX 2

QUESTIONNAIRE RESULTS

A) Environmental Importance

Question Number	Category	Number of Responses
1	Very important	12
	Fairly important	18
	Not important	10
2	Increase	14
	Remain the same	24
	Decrease	1
3	Yes	36
	No	4

B) Environmental Awareness

Question Number	Category	Number of Responses
4	High	11
	Medium	14
	Low	15
5	New SA Constitution: High	2
	Medium	14
	Low	24
	New SA Environmental Policy: High	0
	Medium	11
	Low	29
	ISO 9000: High	7
	Medium	9
	Low	24
	ISO 14 001: High	1
	Medium	6
	Low	33
6	Yes	24
	No	15
7	Yes	13
	No	25

8	Yes	4
	No	35

C) Environmental Initiatives

Question Number	Category	Number of Respondents/Responses
9	Yes	7
	No	31
10	Other	0
	Environmental audit	0
	Environmental management systems	0
	ISO 14 001	0
	Environmental impact assessment	1
	Company environmental policy	3
	Re-use of waste products	6
	ISO 9000	7
	Waste management systems	10
	Pollution control measure	10
	Non-response	10
	Energy conservation	12
	Noise reduction	13
	Waste reduction	13
	Water conservation	16
	Recycling	17

D) Environmental Market Forces

Question Number	Category	Number of Respondents/Responses
11	Supplier demands	3
	International trade	4
	Competitors	5
	Non-response	7
	Environmental groups	8
	Market opportunities	9
	Local health & environ. inspectors	11
	Voluntary environ. stds/agreements	11
	Public opinion	12

	Customer demands	18
	Government policy/legislation	18
12a	Yes	9
	No	10
12b	High	0
	Moderate	5
	Low	14

E) Environmental Training

Question Number	Category	Number of Respondents/Responses
13	Yes	2
	No	37
14	No response	25
	Safety	12
	Health	7
	Risk Management	5
	Environment	1
15a	Yes	19
	No	21
15b	Not necessary	18
	Time factors	4
	Cost factors	4

F) Environmental Reporting

Question Number	Category	Number of Respondents
16	Yes	9
	No	31
17	Yes	4
	No	36

G) Environmental Advice

Question Number	Category	Number of Respondents
18	Yes	1
	No	39
19	Yes	6
	No	34

H) Future Environmental Initiatives

Question Number	Category	Number of Respondents
20	Yes	7
	No	31