MAURITIUS RESEARCH COUNCIL

INNOVATION FOR TECHNOLOGY

A STUDY OF THE BUYER CHARACTERISTICS OF THE GREEN CONSUMERS IN MAURITIUS AND THEIR IMPLICATIONS FOR MARKETING STRATEGY

Final Report

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Dr T D Juwaheer

ABSTRACT

During this present decade, concern for the environment has emerged as a major socio-political issue among developed nations throughout the world and the increase in the number of environmentally friendly or 'green' products has been significant. In addition to growth in the number of people experiencing environment concern and engaging in ecological activities, the economic and social diversity of this 'environmental public' has widened to include people from diverse backgrounds. The purpose of this study was to assess the green purchasing behaviour of consumers in Mauritius and to construct a psychographic profile of the green consumer in Mauritius. Management's perception of the barriers to future 'green' product update and diffusion in Mauritius have been reviewed.

The discussions during the focus groups and the analysis of the responses given by the participants have revealed that company executives are concerned about the environment. However, in order to fully integrate green marketing practices in their daily activities, these executives have insisted on three main issues, namely, the government must be more proactive, the importance of educating the Mauritian population by starting with the young ones and that reforms must be on a continuous basis. Hence, one possible solution could be the introduction of a national reform relating to the implementation of environmental clubs in all the schools around the island.

It is also apparent from the survey among Mauritian respondents that environmentally friendly or green products have achieved a substantial awareness among consumers. Green products in Mauritius no longer represent a gimmick or a fad and represent an economic note for a better environment in the future. Five main profiles of the green consumers in Mauritius have emerged from the study, namely, the Pure Greens, the Light Greens, the Moderate Greens, the Poor Greens and the Indifferent Greens. The foundation for creating and maintaining a green market segment in Mauritius is based on information on the significance of consumer action as well as a wider understanding of the underlying problems addressed by the 'green' products.

Corporate environmentalism will become an imperative for Mauritius companies and to this end, they may wish to adopt an enviropreneurial approach to marketing – 'blending environmental concerns with marketing strategy in search of innovations and opportunities.

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CHAPTER One
INTRODUCTION

1.0 INTRODUCTION

Environmental marketing and green marketing programmes have gained momentum since the 1970's as consumers, manufacturers, and distributors became environmentally conscious of their actions in the production and consumption of goods and services.

Green marketing is a style of marketing which has arisen in response to increasing concern about the state of the global environment and the life that it contains. Strategies for green marketing must be at the heart of the company's forward planning since consumers and the public will often assess the company's environmental performance from the marketing point of view.

Although the environmental movement has been underway for years, marketers in Mauritius have been typically slow to adopt this innovation. The use of green appeals by marketers can be productive. 'Green customers must be treated fairly and with respect. They appear to be careful and thoughtful customers. Treated fairly they may be receptive; treated poorly, they may not only switch brands but also take others with them' (Shrum *et al,* 1995).

1.1 THE MAURITIAN CONTEXT

In the recent years, environmental issues in Mauritius have received much attention, reflecting rising public concern and awareness of environmental problems. Pressure groups have been campaigning vigorously for the environment; media reporting on environmental issues has increased dramatically, the environment has moved up on the agenda in political decision making; numerous regulations and laws for the protection of the environment has been passed, and through the Earth Summit in Rio de Janeiro in 1992 and its follow-up summits in Berlin in 1995 and in New York in 1997, targets have been set for international co operation and action (Keating 1993).

There is considerable evidence that most markets in developing economies like Mauritius have been affected by green consumer behaviour, that means by behaviour that reflects concern about the effects of manufacturing and consumption on the natural environment. Besides legal changes over the past decade, many companies began to feel the impact of market forces such as changing buying habits of environmentally oriented consumers and boycotting behaviour that resulted from media reporting and pressure group activity.

Whether there has been a reversal over the years regarding the occurrence of green consumer behaviour in Mauritius is hotly debated. Green product options have stayed on the shelves of many retailers, which indicated that green consumers on Mauritius remain at least a niche market that is worth catering for. But in general, the Mauritian consumer can still be considered a “sleeping giant”.

Consumers apparently find it difficult to assess the environmental friendliness of a product. Consumer confusion and skepticism about the 'greenness' of product is reported to be widespread. This is thought to present an important (cognitive) barrier to the adoption of green products, which, in turn, prevents the market mechanism from developing an ethical impact on companies. Also the failure of green marketing communication in Mauritius, both corporate and non-corporate, has been related to a lack of understanding of green consumer behaviour at a cognitive level. This highlights the need for cognitive research into green consumer behaviour.

The purpose of the study will be to assess the green purchasing behaviour of consumers in Mauritius and the author will try to construct a psychographic profile of the green consumer in Mauritius in terms of variables directly related to purchase behaviour such as price consciousness and general care in shopping, interest in new products and brand loyalty towards advertising and media interests and preferences.

1.2 OBJECTIVES OF THE STUDY

This research aims at studying the green consumer behaviour in Mauritius with a view to better shape the marketing strategies of Mauritian Businesses in the green age. Hence objectives of the research are twofold, that is, firstly in respect of the Companies bases in Mauritius and secondly for the Mauritian Consumers.

1.2.1 OBJECTIVES IN RESPECT OF BUSINESS

The objectives in respect of companies based in Mauritius will be as follows:

1 To assess management's view of the key pressures that affect the firm's development of 'green' products and the firms' response to green pressure;

2 To outline the firm's marketing objectives for 'green' products, their strategies, commitment to R&D and the firm's influence on the demand for green products;

3 To determine the pricing, communication and promotion strategies for 'green' products;

4 To investigate distribution concerns, particularly intermediaries' influence on making the firm's new green innovations to consumers;

5 Lastly to assess management's perception of the barriers to future 'green' product uptake and diffusion in Mauritius.

1.2.2 OBJECTIVES IN RESPECT OF CONSUMERS

Green consumer behaviour in Mauritius raises a chest of intriguing questions that cover a wide range of issues in relation to the green consumer. In the present study the objectives for the consumers will be as follows:

1. What drives the green consumer? What are the values, motives, desires and needs behind green consumer behaviour?

2. Does green consumer behaviour in Mauritius carry on ethical religious and/or spiritual dimension?

3. What knowledge and understanding of environmental issues are held by green consumers? How does learning occur regarding green consumption?

4. Does the Mauritian green consumer have a distinctive socio-demographic consumer behaviour related to age, gender, and income?

5. What impacts do media reports/advertising and pressure group campaigns have on 'public opinion' and on the occurrence of green consumer behaviour?

1.2.3 CHAPTER OUTLINES

The structure of the project report is as follows:

Chapter 1: Introduction

The current chapter provides an introductory note about the rational of this study and highlights its main objectives in respect of businesses and consumers.

Chapter 2: Literature Review 1 - The Role of Businesses in Towards Greening

According to Johnson and Douglas (1998), the very notion of sustainable development suggests that business organizations, even if only small household "firms," must be the principal actors in bringing about viable relationships between society and nature. Chapter 2 highlights the role of businesses in the green movement, differentiates green marketing from traditional marketing, discuss the level of green business strategies, and explains the implementation of green marketing strategies and tactics.

Chapter 3: Literature Review 2 – The Green Consumer Behaviour

According to Kotler *et al* (1997), consumers make many buying decisions in their daily lives. Chapter three introduces different models of consumer behaviour in marketing and in particular in the field of green marketing. In addition, the existence of different levels of greenness and green consumer segments has been confirmed supported by many studies done in different countries. This chapter also discusses how to profile green market segments.

Chapter 4: Methodology – Focus Group Interviews (Mauritian Companies)

This chapter presents the methodology that has been used for conducting five focus groups in the context of this study. Explanation of how participants have been selected and how the focus groups have been done are part of the methodology.

Chapter 5: Empirical Findings of Focus Groups Interviews (Mauritian Companies)

Chapter five highlights the findings from the focus groups. The discussions during the focus groups and the analysis of the responses given by the participants have revealed that company executives are concerned about the environment. However, in order to fully integrate green marketing practices in their daily activities, these executives have insisted on three main issues, namely, the government must be more proactive, the importance of educating the Mauritian population by starting with the young ones and that reforms must be on a continuous basis.

Chapter 6: Methodology – Consumer Survey

This chapter presents the methodology that has been used for conducting a national survey in the context of this study with a sample size of 1000 respondents. The methodology highlights the questionnaire design and the sample plan of the survey. Much emphasis is also given to the statistical tools that have been used for interpreting the results of the survey.

Chapter 7: Empirical Findings of Consumer Survey

Mauritians consumers can be classified as per their level of 'greenness', as per the analysis presented in this chapter, five clusters have been identified within which the Mauritian consumer can be grouped in respect of their level of 'greenness', namely, Pure Greens, Moderate Greens, Light Greens, Poor Greens and Indifferent Greens. Also this chapter attempts to profile these consumers across demographic variables and psychographic variables.

Chapter 8: Suggestions & Recommendations

Chapter 8 presents the suggestions and recommendations of the study by integrating the findings from the focus groups and the national survey. The emphasis is on the marketing strategies that marketing managers must adopt to be in line with the green movement.

Chapter 9: Conclusion

This chapter outlines the main limitations of the project and provides directions for further research in the field of environmental marketing. I also highlight the main findings of the focus groups and the national survey.

CHAPTER Two

Literature Review 1:

THE ROLE OF BUSINESSES TOWARDS GREENING

2.0 INTRODUCTION

This chapter reviews the existing literature on how businesses are evolving in the green era. Also, the difference between traditional marketing and green marketing is explained. Also, the implementation of marketing strategies and tactics are discussed. And as a concluding note to the chapter, the roles that businesses can play in this era is explained.

A wide variety of technological breakthroughs in the late 19th and 20th centuries have transformed the human world. These breakthroughs include advances in media (e.g., the television), communication (e.g., the Internet), production (e.g., miniaturization), and others (e.g., the home computer). All of these breakthroughs have had the effect of "shrinking the world." Or, to use another cliche, these technological revolutions create a "global village." Given this chain of events, a concern with environmental (or green) issues is heightened. As citizens and as consumers, we worry about the future and wonder whether or not there will be enough resources to ensure that everyone has a chance to achieve "the good life." As participants in a capitalist economy, we turn to corporations to transform our thoughts into goods and services. In this sense, corporations are the agents of our desires (Zinkhan *et al,* 1995).

Also, as per Gallarotti and Giulio (1995), the traditional view in management circles about the relationship between the environment and business can best be summed up as “pollution pays, pollution prevention doesn't't”. Notwithstanding the recent proliferation of literature on the benefits of green management, many managers continue to see environmentally sound strategies as detrimental to the principal goals of profitability, maintaining markets, controlling costs and efficient production.

Stricter government regulation of the environment in developed nations changed the equation. There are also many opportunities for managers to profit from environmentally sound strategies that are independent of public pressures. Together, these two types of incentives serve to turn the traditional vision about the incompatibility between good business and the environment on its head: it is becoming increasingly apparent that, indeed, "*pollution prevention pays while pollution doesn't* ".

2.1 THE NEW STAKEHOLDERS

Publicly traded corporations often adopt agency theory as a foundation for business decision making. Agency theory suggests that the paramount goal of management is to create wealth for the owners (Jensen & Meckling, 1976). A corporation that adamantly follows agency theory will relentlessly pursue activities that maximize stockholder value, moderated only by externally imposed law and regulation. However, Quinn and Jones (1995) propose in the current social climate that shareholder wealth maximinization must also be tempered by the social and moral obligations of the firm. Quinn and Jones (1995) suggest that this broader perspective, termed "agent morality theory," results in enhanced long term performance derived from the "invisible asset" of ethical and socially responsible behavior.

These social and moral obligations are made with the various "stakeholders" of the corporation including (Donaldson & Preston, 1995): (1) customers, (2) communities, (3) employees, (4) trade associations, (5) suppliers, (6) governments, (7) investors, and (8) political groups. Donaldson and Preston (1995) suggest that corporations must move from the "morally untenable" agency theory to a broader stakeholder perspective, explicitly considering the effect on all stakeholders in the development and implementation of strategy. Polonsky (1995) proposes that stake-holder theory allows the integration of environmental issues into overall corporate strategy. However, in an appraisal of modern business practices Hawken (1993) states that "not one wildlife reserve, wilderness, or indigenous culture will survive the global market economy." Similarly, Shrivastava (1995) suggests environmental management "risks have proliferated through population explosion, industrial pollution, environmental degradation, and the lack of institutional capacity for risk management."

In addition, Ottman (1998) argued that traditionally, it used to be that investors, employees, customers, and suppliers were the only ones with a keen interest in a company's activities. However, now that the condition of the ecology is a key issue, eyes from practically every corner of society scrutinize firms' environmental activities with an eye on environmental impact. These new corporate environmental stakeholders include the general public, community activists, lawmakers, educators, church leaders, even children and future generations who will feel the affects of today's corporate activities in decades to come. Like conventional industry stakeholders, they have a direct stake in the environmental and societal-related activities of specific industries and firms.

2.2 GREEN COMPANIES IN ACTION – SKEPTICISM

According to Johnson and Douglas (1998), the very notion of sustainable development suggests that business organizations, even if only small household "firms," must be the principal actors in bringing about viable relationships between society and nature.

Despite the visibility of a growing environmental wave that has been changing the fundamental structure of the business climate in developed nations over the past two decades, many managers still cling to the view that pollution pays, pollution prevention doesn't. Pursuing environmentally sound strategies continues to be seen by a large cross section of managers as detrimental to the principal managerial goals of profitability, maintaining markets, controlling costs and efficient production (Whalley and Whitehead, 1994). Such conclusions about an environmental drag on business are based on three fundamental beliefs (Sandler, 1992):-

1. First, the benefits of being green or environmentally sound practices cannot be fully appropriated by companies that follow such strategies (e.g., local residents will not pay companies for limiting water and air pollution).

2. Second, the costs associated with environmentally sound strategies are significant. Much is supposedly sacrificed in terms of:
   - the diversion of investment and scarce resources (both economic and human) from productive areas to unproductive areas (i.e., designing, operating and maintaining pollution control equipment);
   - the standard costs and delays associated with the introduction of new products; and
   - the disruption caused by plans for constructing new production facilities and entering new markets (Peattie and Ratnayaka, 1992).

3. Finally, there is limited liability in the market for pollution. In other words, companies do not bear the full costs of their environmental degradation, and because of these free uses of the environment, note Anderson and Leal (1991), argue that companies "'overuse' the air or water as garbage dumps"

2.3 GREEN COMPANIES IN ACTION – OPTIMISM

The traditional view that green does not payoff has come under close scrutiny in the past two decades, especially in developed countries. With greater governmental regulation, many of the public-goods problems in the market for environmentalism have abated. Companies have found themselves bearing greater costs for their environmental degradation (through fines, taxes and litigation) and have enjoyed greater benefits as a result of green practices (through subsidies, marketable pollution permits and fewer\bureaucratic "hassles" from public authorities) (Hunt and Auster, 1990). Corporate responses to the environment, however, continue to be perceived by many as adversarial. The view is still quite common that companies are coerced into adopting principles of green management rather than doing so voluntarily; that is, in the absence of regulation, managers would have little incentive to make their companies environmentally sound. But even the image of green managers as reluctant environmentalists underestimates the benefits of following environmentally sound strategies. Even without public coercion, the growing environmental consciousness in the developed world has opened up a plethora of opportunities to companies that are becoming greener (Maurice Strong, 1990). Without the public vigilantes, the trend toward being environmentally sound is becoming more compelling to managers.

The idea that green management can indeed be profitable is not new. As far back as 1966, the chairman of Carl Gerstacker laid out the fundamental compatibility between profitability and the environment. Dow went on to institute an environmental strategy in the early 1970s geared toward "waste elimination, improved productivity and sustainable growth" (Smart, 1992). In 1975, 3M launched the now celebrated Pollution Prevention Pays (3P) program, which was oriented around cost reduction through pollution prevention. In fact, the underlying philosophy of the program was that pollution represented "an inefficient use of resources." Operationally, 3P moved toward limiting the generation of waste and reusing residual materials through raw material substitution, end-product substitution, process modification, equipment redesign, recovery, good housekeeping, inventory control, segregation and direct recycling (Cairncross, 1992).

Notwithstanding these early manifestations of the profitability of green management, it is only recently (1990s) that a proliferation of literature emphasizing the entrepreneurial opportunities embodied in environmentally sound strategies has occurred. The most celebrated statements of such opportunities have come from Vice President Al Gore (1993) and Michael Porter (1990,1991), who suggest that companies increase their international and national competitiveness by moving toward greener production methods and products. But to go beyond the now familiar arguments of Porter and Gore, the opportunities are far more diverse and complex than a matter of simple efficiency gains and new markets and processes.

Together with the pressure from public authorities (regulation), these opportunities create a managerial incentive structure that pervades all dimensions of corporate operations. Costs can be reduced through low-bulk production and packaging, limiting the use of energy and raw materials, recycling and reusing energy and materials, substituting nonhazardous materials for hazardous ones, maximizing containment and improving quality control and byproduct use. A proenvironment strategy also enhances managerial and organizational skills by placing a premium on thinking.and operating in teams and networks, thinking in global and long-run terms and becoming familiar with all operations of a company as well as with an entire industry.

Markets can be better penetrated, maintained and even dominated as a result of environmental product differentiation and competition. Vertical links in the chains of production and distribution create greater pressures to produce green products as companies demand greener inputs and retailers respond to growing consumer demand for green goods. Moreover, green complementarities in production are increasingly squeezing nongreen complements out of the market. Environmentalism has also opened up numerous opportunities for cooperation among companies in product development, competition and production.

Managers are also faced with a variety of financial incentives to go green. A company's environmental record bears strongly on the desirability of its stock, its access to credit and, ultimately, the discretion with which it manages its own finances. Finally, the increasing exposure to litigation that has resulted from the pace of environmental legislation and enforcement has pressured companies to better manage environmental risk.

2.4 DIFFERENCE BETWEEN TRADITIONAL MARKETING AND GREEN MARKETING

Eventually, businesses have to redefine their practices so as to reorient their strategies towards greening. Green marketing has its own specificities as compare to traditional marketing. In this respect, Miles *et al* (1997) have compared environmental/sustainable marketing perspectives to traditional marketing. The differences are illustrated on the following page:

Objectives/Perspective	Environmental/Green/ Sustainable Marketing	Traditional Marketing
Objective	Satisfy customer needs in an environmentally sustainable way, while earning a profit.[1]	Satisfy customer needs at profit.[2]
Perspective of Customer	The buyer of the product, and the victim of all externalities; or all stakeholders.[1]	The reason for existence.
Perspective of Government	An ally in the creation of a sustainable economy to work and manage.[1]	A regulator and limiter. To be managed.
Perspective of Demand	The redirection of demand towards products with low levels of externatility production.	The stimulation of for any and all products. Most efforts placed on highest margin products.

Table 2.1 Environmental/Sustainable Marketing Perspectives Compared to Traditional Marketing

Several hypotheses or propositions about the characteristics and practices of green business can be culled from the management theory and corporate strategy and policy literature (Johnson and Douglas 1998).

1. The green business will operate from a belief system or paradigm that is markedly different from the dominant social or economic paradigm.

[1] Sheth and Parvatiyar (1995)
[2] McCarthy and Perreault (1993)

2. The green business will operate from a consideration of the organization as boundless and from a premise of interdependent inclusiveness (parties or entities formerly seen as external stakeholders are perceived and accommodated as integral to the systemic context and operation of the business). Cooperation supersedes competition.

3. The green business will employ ecological decision-making criteria that address biocentric ethics.

2.5 MOTIVES TO BECOME GREEN

According to motives for ISO-14000 adoption 1997, there are different pressures/motives that push a business to become green. These are illustrated in Table 2.2 on the next page:

Corporate Social Responsibility	A motive based on ethical perspective of business's role in society.
Differentiation	The ability to obtain a price premium due to the effect of differentiation; the potential for increased sales and/or market share due to differentiation
Entry Barrier	Certification as a barrier to entry in some markets resulting in less competition.
Image Enhancement	Voluntary adoption of environmental standards may enhance corporate image which allows some special considerations when dealing with public stakeholders.
Legal Immunity	Voluntary adoption of environmental standards may help protect firm against charges of environmental negligence.
Cost Savings	The adoption of sound environmental practices such as energy conservation and recycling may actually save the organization expenses, including lower insurance rates.
Influence on Legal Standards	Voluntary adoption of environmental practices allows commerce to have input on standards and may pre-empt regulations.

Table 2.2: Motives/Pressures to become green

2.6 LEVELS OF GREEN MARKETING

In the field of green marketing, a number of catch phrases have been used, all of which have to do with satisfying corporate objectives and consumer needs while ensuring that the world is not made worse off. The ramifications of such an approach are substantial and require that firms think globally about their activities, minimizing environmentally harmful activities in all countries in which they operate (Polonsky and Jay, 2001).

Managers may ask, "How can we achieve organizational and consumer objectives in more environmentally responsible ways?" In true green marketing practices, environmental issues become an overriding strategic: corporate focus rather than simply one strategic action. Strategic greening, then, often requires a change in corporate mindset as well as in corporate behavior (tactics).

Menon and Menon (1997) suggest that green marketing activities can occur at three levels in the firm: strategic, quasi-strategic, and tactical. In strategic greening, there is a substantial fundamental change in corporate philosophy, such as the Australian firm CarLovers designing its entire carwash process as a closed-loop, recycled-water system. Quasi-strategic greening entails a substantial change in business practices. To reduce water consumption, for example, some hotel chains have begun asking guests to indicate when they want their towels washed by leaving them on the bathroom floor or in the bathtub. With tactical greening, there is a shift in functional activities, such as promotion. In times of drought, water authorities might use promotional campaigns to encourage consumers to behave in a more responsible, water-efficient fashion.

These three levels can be used to identify the amount of change a firm requires and may reflect the degree of commitment to various environmental objectives. Take the example of a jeans manufacturer who, in the early 1990s, promoted the fact that it would donate a proportion of each sale for planting trees. Such a tactical activity might have been viewed with intense skepticism, because there is no apparent logical link between making jeans and planting trees. However, a similar program by a paper company that explains the links between its activities and the natural environment, the specific ecological issue being addressed, and how the program will assist in improving the environment would likely be seen by consumers as undertaking an appropriate tactical activity.

On the other hand, any strategic environmental activity would require an extensive long-term financial investment on the part of the firm involved. Effectively implemented, strategic greening would rarely be superficial. The German furniture manufacture Wilkhahn adopts an integrated strategic approach to greening. It designs long-lasting ergonomic products that either use recycled materials or minimize the use of virgin resources, and it manufactures them in an environmentally designed factory.

2.6.1 IMPLEMENTING GREEN MARKETING STRATEGIES AND TACTICS

Before getting on board with strategies and tactics, it worth mentioning that the green marketing mix function is different from traditional marketing. In this respect, Miles *et al* (1997) have adapted the Van Waterschoot and Van Den Bulte Improved Marketing Mix Classification Framework to Environmental/Sustainable marketing in Table 2.3 on the following page illustrates the function of the Green Marketing Mix.

Marketing Mix Function[1]	Environmental/Green/ Sustainable Marketing	Traditional Marketing
PRODUCT Need satisfying instruments in an exchange.	Environmental design of product;[4] Products designed to facilitate long term use, energy efficient, efficient recycling, "life-cycle recyclibility responsibility" & consider both the total cost of production and consumption.[2]	Planned obsolescence, designing products to have shorter lives, disposable products, no concern about externalities from the production or consumption of product.
MASS COMMUNICATION Non-personal message with goals of creating awareness, interest, and desire.	Environmental labeling. Move towards rational consumption.	Stimulation of both primary and selective demand utlizing mass media. Attempt to create desire for unsought goods. Focus on image and emotion of products.
PLACE Where and how of availability.	Lifecycle assessment, Total Cost Assessment of distribution.[4]	Distribution based on interrelation-ship between costs of distribution and strategic objectives.
PERSONAL COMMUNICATION Personal messages with goals of maintaining awareness and interest and stimulating desire and sales.	Focus on meeting consumer needs at minimal cost to environment, while achieving long term profits.	Focus on meeting customer needs at a profit.[3]
PRICE The cost and method of payment	Total cost assessment, Full Cost Accounting, [4] or the explicit internalization of all external costs must be considered in setting price in relationship to strategic objectives and demand.[5]	A strategic decision based on interrelationship between marketing objectives, financial objectives, and demand.

Table 2.3: Environmental/Sustainable Marketing Adapted to the Van Waterschoot and Van Den Bulte Improved Marketing Mix Classification Framework.

[1] Van Watershoot and Van den Bulte (1992)
[2] Sheth and Parvatiyar (1995)
[3] McCarthy and Perreault (1993)
[4] GEMI (1994a, 1994b)
[5] Miles, Russell, and Arnold (1995)

CHAPTER Two

Literature Review 1:

THE ROLE OF BUSINESSES TOWARDS GREENING

When considering green marketing, many people tend to focus incorrectly on specific individual activities, such as promoting green product characteristics or designing less ecologically harmful products. Although these activities are tactically important and necessary to the overall success of a greening program, green marketing is a holistic, integrated approach that continually reevaluates how firms can achieve corporate objectives and meet consumer needs while minimizing long-term ecological harm. Few firms, for example, have truly integrated the eco-mindset into conducting marketing audits. This makes it difficult to evaluate the overall success of programs (environmentally or based on financial performance) because the specific green activity is limited to one or two functional areas and is not imbued in the overall corporate activity or philosophy.

Green marketing now involves a diverse range of issues that have evolved since its initial conception in the early 1970s. Extensive information is available on such trategic activities and tactics, including:

- Targeting
- Pricing
- Design
- Positioning
- Logistics
- Marketing Waste
- Promotion
- Green Alliances

2.6.1.1 TARGETING

Consumers often encourage firms to develop green products, such as dolphin-free tuna or energy-efficient light bulbs. Although there are many ecologically minded consumers, firms would generally be ill-advised to develop products targeting them solely. Ottman (1998) argues that substantial numbers of consumers claim to be "green", but it is unclear to what extent they are willing to purchase goods based solely on environmental grounds. They may expect "green" goods to be competitively priced and perform the same as others, thus using a product's greenness to differentiate two relatively equal goods. When the Kyocera Ecosys laser printer was first introduced, it was promoted as a "green" printer. This focus was later shifted to emphasize product quality as well as its being more eco-friendly and costing less to operate than competitors. Kyocera broadened its initial green appeal to a bigger cross-section of the market.

New technologies, however, may allow firms to better target existing green consumer segments. The Internet allows ecologically minded firms to target green consumers globally without developing extensive distribution networks. The Ecomall (www.ecomall.com/biz/<http://www.ecomall.com/biz/>) is a good example. It promotes a diverse range of environmentally oriented firms, with company listings under 68 different product categories ranging from air purification to wood products. In this way, firms using the Net may now be able to target green consumers more effectively.

2.6.1.2 GREEN DESIGN/NEW PRODUCT DEVELOPMENT

Ashley (1993) suggests that 70 percent of a product's environmental harm is designed into the product and the associated production processes. So firms need to incorporate environmental attributes into products and processes at the initial stages of new product development (NPD) along with other issues, such as quality. They can then use life-cycle analysis to evaluate a product's ecological impact for each production stage. This allows them to identify alternative methods of designing or producing goods, consequently opening up new, untapped industries and markets while cutting production costs.

Designing less harmful "traditional" products is an integrated and complex process, requiring innovative designs. As part of this process, a fundamental question needs to be asked: Can new processes be developed to satisfy consumers' needs? In fact, consumers may not have to buy goods if they can purchase the use of the need-satisfying capacity instead. This entails rethinking the firm's activities, with a shift in focus from selling physical products to selling their performance (their need-satisfying capacities). It also has the potential to actually increase a firm's return on investment. However, such shifts require change on the part of consumers as well as the firm, because consumers must realize that their needs can still be satisfied without having to actually "buy products." Bringing about company and consumer changes at the same time may be a difficult task, especially for firms that are making major changes in products and asking consumers to substantially modify their behavior.

In addition, an important element of the product is packaging. Packaging is defined by Kotler (1991: 449) as 'all the activities of designing and producing the container or wrapper for a product'. Thus the packaging encompasses a broad area, and has many conflicting demands, constraints and trade-offs (Danton de Rouffignac, 1990; Marcus, 1975; Phelps & Westing, 1968). Increasing attention is being paid to packaging, a component of product in the marketing mix (Spence *et al.* 1994). It is being recognized that packaging is important not only from a functional viewpoint, but also in terms of marketing to the customer. One of the constraints on packaging is environmental issues.

Essentially three elements of packaging emerge from the literature - functional issues, marketing issues and constraints. Constraints identified include economic aspects, legislation and environmental issues (Marcus, 1975; Phelps & Westing, 1968). The degree of importance of each element differs within the packaging value chain. Davidson (1986) found that marketers, retailers and consumers have different requirements in terms of marketing and functional issues. Danton de Rouffignac (1990) argues that packaging is now consumer driven. Previously, in common with most of manufacturing, attitudes to packaging were product led.

Consumer attitudes to packaging have not been well researched in South Africa. However, U.S. and U.K. surveys have been published. The survey results by Ashton (1991) indicate that, in addition to functional and marketing requirements, American consumers also require recyclable packaging and infrastructure in place that will make recycling convenient.

Both Selke (1990) and Freeman (1980) have made the following suggestions as ways to improve the environmental impact of packaging:

- Eliminate heavy metals, e.g. lead based pigments
- Design for reusability;
- Use single material type where possible;

- Use materials which are easily separated or compatible; and
- Use recycled materials.
- Reduction in weight of material;
- Design for waste reduction in landfill;
- Provide containers & infrastructure for consumer recycling;
- Design for recyclability; and
- Reduction in energy required to manufacture/recycle packages.

2.6.1.3 GREEN POSITIONING

Polonsky & Jay (2001) argues that green positioning is a question that needs to be asked early in an organization's development. In other words, what are the underlying environmental values and behaviors of the firm and its products? Truly green marketers demonstrate strategic greening by ensuring that all activities and behaviors thoroughly incorporate environmental values into decision-making processes. Environmental criteria should be considered as important as financial criteria. Such firms are rare, although several do attempt to adopt such a position, such as The Body Shop and Blackmores.

The performance of any company taking this stance must match its rhetoric and consumer expectations. All corporate activities must support this projected image, or the firm will be "punished" by disillusioned consumers and the media. This consideration is important, because positioning is where many firms misuse tactical greening. Though possibly providing some limited benefit, tactics will be insufficient for positioning a company as green over the long term. Changing corporate actions associated with positioning may be hard, especially when some environmental aspects are beyond the firm's control. What happens, say, if an ecologically responsible raw material disappears? The firm must either produce that input, find an acceptable alternative, stop making the related product(s), or opt for the next best alternative. Unfortunately, the practicalities of most situations would mean opting for the next best environmental alternative, at least in the short term. So the question then becomes: How will consumers react to a move away from the firm's stated "environmental focus"?

Deviations from stated corporate eco-values frequently generate extensive negative publicity, usually resulting in lost consumer confidence. It often seems that firms promoting themselves as environmentally responsible are held to a higher standard than others lacking the same eco-values. As a result, some firms undertake strategic greening activities without using these changes for positioning purposes. S.C. Johnson, which markets a wide range of cleaning products, has a strong environmental ethos and has won numerous green awards, but it does not feature these extensively in positioning itself or its products.

2.6.1.4 GREEN PRICING

Polonsky & Jay (2001) argues that while green products are often "priced" higher than traditional goods, this does not always mean they cost more, especially when one considers all associated costs. Often, green goods have higher initial out-of-pocket expenses but lower long-term costs. Long-life compact fluorescent light bulbs are much less expensive than traditional ones during their lifetime. Unfortunately, their relatively longer payback period and higher upfront costs discourage their use, making it difficult for many consumers to think of light bulbs as an investment warranting life-cycle costing.

In some cases, it may be easier to demonstrate cost savings for less harmful alternatives, such as Kyocera's Ecosys laser printer mentioned earlier. The Ecosys is competitively priced and uses less energy and toner than other comparable printers, so it is cheaper than traditional products in both the long and short terms, a benefit that can easily be demonstrated to consumers.

Less harmful products may also cost more (out-of-pocket) in both the short and long terms with no additional financial return. This may be because traditional (non-eco-friendly) products do not incorporate all environmental costs associated with their production--in other words, society subsidizes ecological externalities, such as air and water pollution and toxic cleanup. On the other hand, less harmful products are not subsidized by society, so consumers of these goods must cover all associated costs.

Higher out-of-pocket prices for green goods are problematic, with consumers generally willing to pay only a small premium for them while expecting them to perform just as well as other goods. Equal performance is not always possible, however, because altering the product composition changes its performance, presenting a potential challenge for marketers who will need to change what customers define as acceptable.

2.6.1.5 GREENING LOGISTICS

Distribution is a typical concern, and one of the first functions targeted to minimize environmental costs, Polonsky & Jay (2001). Firms have sought to reduce raw material use by modifying packaging, which can directly and indirectly lower distribution costs as well. Some concentrated laundry detergents now come in smaller packages, weigh less than regular ones (requiring less fuel to ship), and use less energy and raw material for equal cleaning performance.

Integrated transportation systems, the Internet, and other initiatives have further reduced the environmental impact of distribution activities by requiring fewer transport modes. However, the most complex advances in distribution are in the area of reverse logistics, whereby firms move packaging and "used" goods from the consumer back up the distribution channel to the firm. This innovation was partly motivated in the early 1990s by Germany's new first-phase regulations requiring firms to take back waste. The second phase of these regulations went further, requiring firms to take back unwanted products as well. Reverse logistics need not be simply a legislated activity that places costs on companies; it can also be a flow of inputs to production as well as a flow of "goods," allowing firms to turn "returned" goods into major cash flows. Xerox markets reprocessed photocopiers as well as reprocessing parts from these machines to repair other machines. Staff at Fuji Xerox Australia suggest that remanufacturing has generated returns of around tens of millions of dollars. Reverse logistics, then, is not a cost by definition; it is an opportunity to generate more corporate revenue.

Integrated reverse logistics, however, does require extensive corporate commitment in terms of strategic focus, as well as additional financial and human resources. Giuntini and Andel (1995) suggest the six Rs for firms to consider when developing reverse logistics strategies and processes: recognition, recovery, review, renewal, removal, and reengineering.

R's	Description
Recognition	Monitor goods so that they flow through the reverse logistics process.
Recovery	Collect goods for reprocessing.
Review	Test materials to evaluate whether they meet appropriate reprocessing standards or can be disassembled for parts or disposal.
Renewal	Remanufacture the product to its original standards or claim appropriate parts for reuse.
Removal	Dispose of materials that cannot be remanufactured and market the remanufactured goods to new or existing customers.
Reengineering	Evaluate existing goods for better design.

Table 2.4: The reverse logistic - the 6 R's

As shown in Table 2.4, green logistics can thus be seen as a complex, integrated strategic activity that provides unique opportunities for companies. A firm's commitment and its position in the value chain may determine its ability to undertake activities that develop less environmentally harmful logistics. If it does not have the ability or motivation, it may choose to rely on marketing waste.

2.6.1.6 MARKETING WASTE

Although closely related, marketing waste nevertheless differs from reverse logistics Polonsky & Jay (2001). Firms might have products that they cannot reprocess, or materials that are not traditionally seen as having value. This view must change, because waste is a product of company activities and, like all products made, can add value. At the most basic level, firms can develop internal processes that seek to either reduce waste, which improves efficiency, or reprocess their own waste for internal use, thus reducing the use of other inputs.

Reduction is not always possible, and in some cases technology is not adequate to enable waste products to be reprocessed for original use. At present, recycled plastic drink containers cannot be used in virgin containers because of health issues. In other cases, new markets are developed for waste products, which might even involve waste suppliers being customers for the processed waste. Some U.S. wineries pay to have their post-production waste collected and then buy back the processed material as fertilizer. Alternatively, waste products may be used as inputs into other production processes or as completely new products, such as marketing compost as a natural pesticide product.

While marketing waste is potentially an important activity, it rarely requires radical shifts in corporate philosophy, so it is not necessarily strategic greening. Because it involves trying to deal with existing waste more effectively (end-of-pipe solutions) rather than cut the production of waste in the first place, the "mental" shift needed for the firm to deal with the situation is much less than a case of true strategic greening.

2.6.1.7 GREEN PROMOTION

One of the most difficult questions to address is: What environmental information should be communicated and how should it be communicated? A primary issue is that there must be something worthwhile to talk about. A good deal of environmental promotion has been labeled "greenwash," having little if any real ecological meaning Polonsky & Jay (2001). This type of superficial tactical greening is no longer appropriate and both consumers and regulators are unwilling to accept it. Communicating substantive environmental information is a more appropriate approach to take, but requires real activity changes to be meaningful.

Before embarking on environmental promotion, the firm must consider what consumers perceive environmental information to be, and whether they actually understand what is being communicated. The EPA has suggested that such information needs to educate consumers and enable them to make more effective decisions, rather than using greenwashing merely for tactically opportunistic reasons. But although this seems reasonable, is it really the marketer's domain? Could giving consumers more information result in data overload?

As suggested earlier, many firms realize that green promotion alone is becoming less effective, so they are shifting to promoting ecological attributes in addition to more traditional ones. It is questionable, for example, whether environmental sponsorships and cause-related marketing programs will be effective, especially if they are seen as unrelated to a firm's core marketing activities or products. Thus, all green promotional activities need to be carefully evaluated to ensure that the firm is not criticized for greenwashing.

In fact, there is some debate as to whether green appeals actually work in changing consumers' preferences at all, or how their effectiveness may vary across consumer groups. Schuhwerk and Lefkoff-Hagius (1995) found that environmentally oriented consumers were not influenced by green claims, whereas others were. This might relate to differences in consumers' eco-knowledge and understanding. It may also be that consumer skepticism and cynicism toward green claims generally limits the benefit of green promotion, especially tactical activities that are promoted as strategic greening.

Green promotion needs to communicate substantive environmental information to consumers that has meaningful links to corporate activities. As such, it is unlikely to be an effective strategic tool unless it is supported by other corporate activities. Thus, promoting some real environmental attribute of a product or firm requires a change in the product, process, or corporate focus (integration with other activities). Such changes do not have to be strategic in nature. Environmental communication can be used to communicate tactical activities, such as relevant environmental sponsorships or minor product modifications. The goals of such activities need to be clear and the firm must be careful not to over-claim. Otherwise, consumers may perceive these activities as greenwash and ignore the promotion or even punish the firm by boycotting products or complaining to regulators.

In addition, in respect green advertising is a very debated issue. Green advertising is defined as any ad that meets one or more of the following criteria (Banerjee Iet al. 1995):

1. Explicitly or implicitly addresses the relationship between a product/service and the bio-physical environment.
2. Promotes a green lifestyle with or without high-lighting a product/service.
3. Presents a corporate image of environmental responsibility.

Advertisers can highlight the environmental benefits of their products and services to tap the green segment of consumers. Alternatively, advertisers can strive to portray an image of corporate environmental responsibility as a part of their overall company image enhancement. The need to project a public image of environmental responsibility is an indication of the influence of the environmental movement on corporate mage advertising.

Another challenge facing businesses trying to capitalize on the green niche is that publicity about misleading environmental claims from some manufacturers has fueled a wave of consumer skepticism about "green" products over the past few years according to Peter Stisser (1995) vice president of New York-based Roper Starch Worldwide.

2.6.1.8 GREEN ALLIANCES

Polonsky & Jay (2001) argue that it may not be clear whether a firm has all the necessary expertise to implement complex green marketing tactics and strategies. Therefore, as seen in the extensive green alliance research, environmental groups can be a valuable source in helping the firm understand the issues, develop appropriate solutions, and implement associated strategies and tactics. In short, green alliance partners can assist firms in implementing the activities we have discussed.

However, green alliances do not come without potential problems, including different or conflicting objectives. It is unrealistic to expect green groups to simply "toe the corporate line," since their values are not only their expertise but their independent image as well. Any problems arising from the alliance not only decrease the firm's benefits but also tarnish its image and harm its ability to achieve long-term objectives. Green groups may also be hesitant to work with firms seeking only to achieve tactical eco-outcomes, unless in doing so the group believes its own long-term interests are also considered.

Thus, although green alliances may be an effective way to achieve green marketing outcomes, they may take more time and effort to develop than traditional firm-to-firm alliances and require information to be shared in a way contrary to usual practices. As such, the firm may need to shift its strategic thinking, as well as its environmental thinking, to achieve the effective outcomes.

2.6.2 IMPLICATIONS FOR GREEN MARKETING

Just like any integrated marketing communication approach, green marketing must involve extensive coordination across functional areas to be effective Polonsky & Jay (2001). The level of greening--strategic, quasi-strategic, or tactical-dictates exactly what activities should be undertaken. Strategic greening in one area may or may not be leveraged effectively in others. A firm could make substantial changes in production processes but opt not to leverage them by positioning itself as an environmental leader. So although strategic greening is not necessarily strategically integrated into all marketing activities, it is nevertheless strategic in the product area.

Alternatively, tactical greening in promotions might involve minimal, if any, greening of other areas; rather, it might be used simply to exploit a short-term opportunity. A company might simply choose to sponsor a local environmental program without modifying its other activities. This may seem to be an "effective" strategy from a broader business perspective, but not necessarily from a green marketing perspective, especially if the firm is seeking to achieve sustainable broader objectives. If consumers are skeptical of its motives, this opportunistic sponsorship could actually backfire. The publicity generated could even make consumers more critical of the firm's other, less eco-friendly activities.

The overriding implication is that the firm needs to ensure that green marketing activities are integrated holistically, especially if they are used in positioning or promotional activities. That way it does not overemphasize corporate actions, with unanticipated negative consequences. However, it is not necessary for the firm to actively promote all green marketing activities. This may seem to be ignoring opportunities from a strategic perspective, but careful evaluation of overall corporate activities might identify that such opportunities are illusory--not all of them support the same environmental focus--and may help avoid potential problems.

Table 2.5 below presents a number of examples to illustrate how tactical, quasi-strategic, and strategic green marketing activities might be undertaken in each of the functional marketing areas. Tactical actions typically involve limited change and limited coordination across multiple functions. Quasi-strategic actions normally require more substantive changes in marketing activities, as well as broad-based coordination among several non-marketing activities. Strategic greening requires a holistic approach, with all actions of the firm coordinated to integrate environmental issues across all functional areas.

	Tactical Greening	Quasi-strategic Greening	Strategic Greening
Targeting.	Ads mentoring green features and run in green-focused media	A firm develops a green brand in addition to its other brands.	A firm launches a new SBU aimed at the green market.
Green Design/ NPD	A firm switches from one raw material supplier to another with more eco-friendly processes.	Life-cycle analysis is incorporated into the NPD process to minimize eco-harm.	Fuji Xerox develops its Green Wrap paper to be more eco-friendly-fromthe ground up
Green Positioning	A mining company runs a PR aspects and practices.	BP Amoco redesigns its logo to a sun-based emblem to reflect its view of a hydrogen/solar-based future for the energy industry.	The Body Shop pursues environmental and social change improvements and encourages its customers to do so as well.
Green Pricing	Cost savings due to existing energy-efficiency features are highlighted for a product.	A water company shifts its pricing policy from a fiat monthly rate to a per-unit-of-water-used basis.	A company rents its products rather than selling them; customers now pay only for use of the products.

Table 2.5: Tactical, quasi-strategic, and strategic green marketing activities at each functional marketing areas

	Tactical Greening	Quasi-strategic Greening	Strategic Greening
Green Logistics	A firm changes to a more concentrated detergent, which reduces package size and weight and lowers shipping costs.	Packaging minimization is incorporated as part of a firm's manufacturing review process.	A reverse logistics system is put into place by Fuji Xerox to reprocess and remanufacture photocopiers.
Marketing Waste	A firm improves the efficiency of its manufacturing process, which lowers its waste output.	Telstra (a phone company) has internal processes so that old telephone directories (waste) are collected and turned into cat litter products by other companies.	A Queensland sugarcane facility is rebuilt to be cogeneration based, using sugarcane waste to power the operation.
Green Promotion	An oil company runs a PR campaign to highlight its green practices in order to counter an oil spill getting bad press coverage.	A company sets a policy that realistic product eco-benefits should always be mentioned in promotional materials.	As part of its philosophy, the Body Shop co-promotes one or more social/eco campaigns each year with in-shop and promotional materials.
Green Alliances	A company funds a competition (one-off basis) run by an environmental group to heighten community awareness on storm water quality issues.	Southcorp (a wine producer forms a long-term alliance with the Australian Conservation Foundation to help combat land-salinit issues.	A company invites a representative of an environmental group to join its board of directors.

Table 2.5: Tactical, quasi-strategic, and strategic green marketing activities at each functional marketing areas (Cont'd)

2.7 CONCLUSION

According to Gallarotti and Giulio (1995), on the active side new green markets have proliferated. Managers have responded very strongly to the opportunities for creating new markets. It is on the active side that most of the advantages accrue to "early movers". Unlike a decade or so ago, the market for green products is no longer very small and the marketing no longer extremely specialized (Litvan, 1995). Indeed, the market has become quite large and the products quite general in their functions and appeal. The most overt manifestation of this phenomenon has been in green retailing. Large stores like Wal-Mart (which has pursued a green labeling program) and the Canadian chain Loblaws (which has introduced special sections of environmentally sound products called Nature's Choice) are the most visible embodiment of this trend (Lozada and Mintu-Wimsatt, 1995).

On the reactive side, not jumping onto the environmental bandwagon can produce substantial penalties for laggard companies. Market surveys invariably show that consumers react negatively to poor environmental performance. Hence a relative decline in environmental performance translates into a loss of market shares (Regan, 1993; Litvan, 1993). In one poll of 23,000 American adults conducted by Simmons Market Research Bureau, 60% showed a disposition toward boycotting the products of polluting industries (Simon, 1992). The impetus to maintain relative environmental performance vis-à-vis competitors is all the more enhanced by the significant rise in environmental scrutiny on the part of individual consumers and public and private agencies.

Clearly, the best way to overcome consumer skepticism is to convince consumers that environmental practices are more than a quick way to make a buck (Stisser, 1994). The key to success is understanding how one's own positive or negative environmental image can influence customers' attitudes.

2.7.1 THE ROLE OF BUSINESSES

According to Giuntini and Andel (1995), organizations can be classified based on the major role that they can play. The major roles are defined below:

Qualifiers	The client needs to get the environment friendliness of the product or process tested before he can make a claim regarding it. Hence, the role of an organization as a qualifier.
Labelers	The role of giving eco-labels, which are recognized in the industry as being eco-friendly. The qualifiers can develop their competencies to become a labeler.
Specifiers	A body that will specify the guidelines and protocols with reference to the environmental advertisements.
Monitors	Watching out for the environmental claims and activities that can be harmful or that possibly violate the guidelines and monitor all new products and technological developments which can be used to help the systems become more ecology oriented.
Surveyors	They will conduct market surveys to get the relevant data, as mentioned earlier, which will help track the maturity of the environmental consciousness of the Indians.
Regulators	Verification of complaints (made by the monitors) and making sure that no guideline is violated and that the consumer interest is in no way compromised.
Communicators	One who will design the communication to take advantage of the eco-friendly product feature and make it the selling proposition for the client, while at the same time following the relevant guidelines.
Researchers	The role of developing environment friendly processes, products and systems. It will also include developing processes to check for pollution more effectively and related activities.
Educators	The role of making the consumers and the producers aware of the harmful effects of environmental pollution and the ways of keeping pollution in check and the benefits to be got by going green.
Consults	The role of designing the processes and products that are more environment friendly.

Table 2.6: Roles of Green Organisations

Once the roles have been identified, the next step is to identify the organizations that can take up these roles. Since businesses, can play various roles towards greening, they must be proactive in respect of this new trend which is green marketing.

Businesses are one of the main stakeholders that will impact on the green movement in Mauritius. The supply side must also be driven by a strong demand for a greener tomorrow. In this connection, the next chapter will introduce the role of customers in what is the not so new green marketing concept.

CHAPTER Three

Literature Review 2:
THE GREEN CONSUMER BEHAVIOUR

3.0 INTRODUCTION

This chapter highlights the theories of consumer behaviour and related them to the green marketing concept. Different research findings in respect to levels of greening are compiled and the discussion flows to the right profiling of these green levels or segments.

The earth's environment has undergone major destructive changes: depletion of natural resources, damage to the ozone layer, and loss of agricultural land (Mainieri *et al.* 1997). Traditionally, people have relied on technological innovations, such as development of alternative fuels, to resolve such dilemmas, rather than changing their behavior patterns and lifestyle choices. Though such innovations have made remarkable gains in conserving resources and reducing pollution, many scientists and environmentalists hold that solutions to environmental problems do not lie in technology alone (Hardin, 1993; Stern, Young, & Druckman, 1992). Consumers must adopt environmentally sound behaviours, such as reliance on public transportation and recycling of household wastes, in order to sustain the environment. Through such conscious choices, consumers can take steps to protect the earth's natural resources and to prevent further environmental damage.

One type of environmentally conscious behavior is environmental consumerism (green buying), that is, purchasing and consuming products that are benign toward the environment. Some examples of these products are household items manufactured with post consumer plastics or paper, recyclable or reusable packaging, energy-efficient light bulbs, and detergents containing ingredients that are biodegradable, non-polluting, and free of synthetic dyes or perfumes. These types of ecologically safe products are just a few of the many currently available items that can facilitate the long-term goal of protecting and preserving our natural habitat.

According to Anna-Lisa Lindén *et al* (2000), consumers have a vital role in sustainable development in at least three respects.

1. Consumers' preferences and demands are in a key position when producers consider whether it is worthwhile investing in environment-friendly products and production.
2. Moreover, consumers' own choices and lifestyles have a direct impact on the environment.
3. Consumers' attitudes are also taken as an important incitement of necessary political changes that give more weight to the environment as compared with other social tasks.

Hence it is very important to understand the consumers in terms of preferences and demand, in terms of choices and lifestyle and in terms of their attitudes. The goal in this study is to profile the green consumer in a manner that will assist in the development of marketing strategies. Consequently, the researcher is more interested in factors that contribute to green purchase behavior than in factors related to general levels of environmental consciousness or post-purchase behavior such as recycling (for reviews of this literature, see Shrum, Lowrey, and McCarty 1994; Stern and Oskamp 1987; Van Liere and Dunlap 1980). This distinction is important and has support from previous polls and studies (Shrum *et al. 1995*). For example, marketers complain that even though research shows the environment to be important to consumers, its importance does not seem to translate into a change in purchase behavior (Schlossberg 1991). Also, empirical evidence shows that general environmental attitudes are not related to particular environmental behaviors (Shrum, Lowrey, and McCarty 1994; Stern and Oskamp 1987).

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3.1 BUYER BEHAVIOUR

According to Kotler *et al* (1997), consumers make many buying decisions in their daily lives. Most large companies research consumer buying decisions in great detail to answer to questions about what consumers buy, where they buy, how much they buy, when they buy, and when they buy. Marketers can survey consumer purchases to find answers to questions about what they buy, where and how much. But learning about the *whys* of consumer buying behaviour is not so easy – the answers are often locked within the consumer's mind. In addition, the consumer's choice results from the complex interplay of cultural, social, personal, and psychological factors.

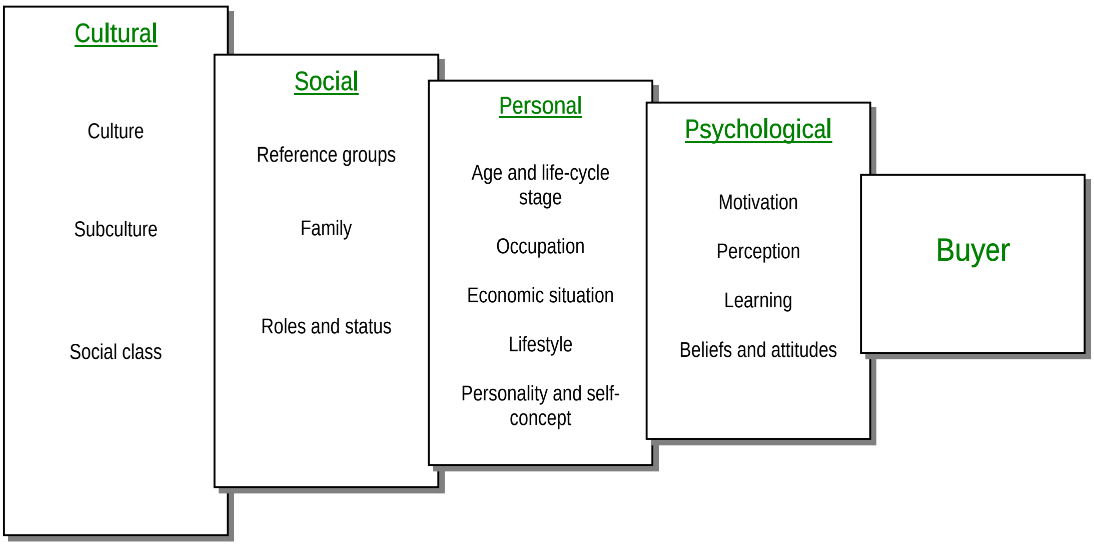

Figure 3.1: Factors Influencing Consumer Behaviour

Source: Kotler *et al* (1997).

Moreover, as per the Engel *et al* (1995) consumer decision model, consumers undergo a six step process to complete a purchase decision, that is, need recognition, search, pre-purchase alternative evaluation, purchase, consumption and post-consumption evaluation.

Need Recognition

↓

Search

↓

Pre-Purchase Alternative Evaluation

↓

Purchase

↓

Consumption

↓

Post-consumption Evaluation

Figure 3.2: Consumer Decision Process

In addition, the Engel- Blackwell- Miniard Model (1995) gives a detailed apercus of the relationship between the consumer decision process and values.

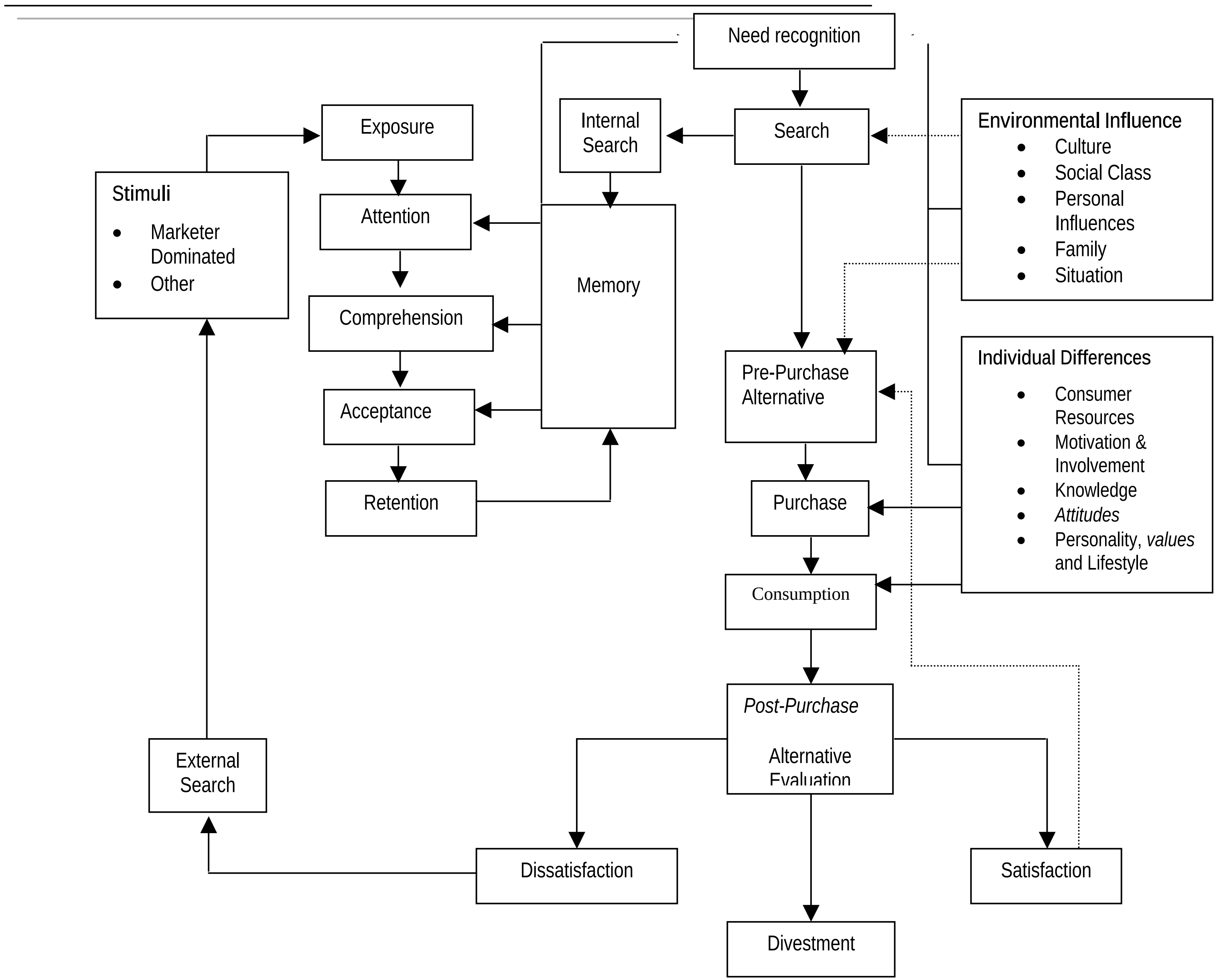

Figure 3.3: Engel- Blackwell- Miniard Model

All these models points out that much research has been undertaken in the field of consumer behaviour. In addition, much research has also been carried out in the field of green consumer behaviour. The term "green" is typically used interchangeably with "pro-environmental" (Shrum, 1995). However, because of differences in definitions of the environment, the term is necessarily imprecise. For this research the term "green" is used simply to indicate concern with the physical environment (air, water, land). Other authors have made finer distinctions in classifying different types of greenness (e.g., Iyer, Banerjee, and Gulas 1994), but we prefer the broader term for the purposes of our study. For the purpose of the present study, the green consumer will be defined as anyone whose purchase behavior is influenced by environmental concerns.

3.2 GREEN BUYER BEHAVIOUR

The literature on green research has revealed interesting findings about the attitudes of the green consumer. Over the past 20 years, national opinion polls have shown major increases in environmental concern among Americans (Gallup & Newport, 1990; Hueber, 1991; Kohut & Shriver, 1989). In 1982, 35% of Americans felt that the U.S. government was providing too little environmental protection, whereas by 1986, that percentage had grown to 60% (Dunlap, 1987). Between 1977 and 1986, the percentage of Americans who adored sacrificing economic growth rather than environmental protection grew from 35% to 58%; during the same period, those who favored sacrificing environmental quality rather than economic growth fell from 21% to 15% (Dunlap, 1987). In the 10-year span from 1975 to 1985, membership in nearly all environmental organizations in the U.S. grew markedly. A number of these groups doubled in membership (i.e., the Sierra Club, National Wildlife Federation); some even tripled (i.e., Environmental Defense Fund, National Resources Defense Council).

Howell and Laska (1992) found similar trends in their analysis of data from the National Election Studies conducted between 1980 and 1988. Overall, the percentage of respondents who favored increasing government spending to protect the environment rose from 38% to 62%, while the percentage of those who favored reducing spending on the environment fell from 11% to 2%. Conservative subgroups of the population, such as Republicans and older voters, showed the same shift toward greater support for spending on the environment.

Recent studies indicate a consistently high level of awareness of and concern for environmental problems. A nationwide Roper poll in 1990 reported that concern for the environment was at an all-time high: "Seventy-eight percent of the public believes that the nation should make a major effort to improve the quality of our environment" (Roper Organization, 1990, p. 1). In 1991, 71% of Americans said they favored environmental protection, 86% recycled voluntarily, 51% donated money to environmental groups, and 49% reported that they avoided purchasing environmentally harmful products (Hueber, 1991). By 1990, as compared with a decade earlier, many more people (a) supported increases in governmental spending for environmental causes, (b) were willing to sacrifice economic growth for environmental protection, and (c) considered themselves environmentalists (Gallup & Newport, 1990; Hueber, 1991; Kohut & Shriver, 1989).

In addition to growth in the number of people expressing environmental concern and engaging in ecological activities, the economic and social diversity of this environmental public" has widened to include people from diverse backgrounds. Traditionally, young, well-educated, and affluent urban dwellers constituted the environmental public (Arbuthnot, 1977; Weigel, 1977). More recently, though, many empirical investigations have indicated that demographics may not be as clearly tied as they were previously to environmental concern and behavior (e.g., Hines, Hungerford, & Tomera, 1986-1987; Samdahl & Robertson, 1989). For example, some recent studies have found a reversed trend for age, with environmental concern and behaviors being stronger among persons above 50 years (Gallup & Newport, 1990; Kohut & Shriver, 1989; Lansana, 1992; Mohai & Twight, 1987; Vining & Ebreo, 1990).

There are still indications of a positive relationship between education and proenvironment attitudes (Kohut & Shriver, 1989; Vining & Ebreo, 1990), but this relationship appears to be weakening (Gallup & Newport, 1990; Hines, Hungerford, & Tomera, 1986-1987). Likewise, though some studies have reported that income predicts environmental concern and activity (Gamba & Oskamp, 1992; Jacobs, Bailey, & Crews, 1984), the differences in environmental concern among socioeconomic groups are gradually vanishing (Arcury & Christianson, 1990; Gallup & Newport, 1990; Hines, Hungerford, & Tomera, 1986-1987; Samdahl & Robertson,1989).

3.3 DEGREES OF GREENNESS

Hence, for consumers, being green involves a lifestyle that has a minimal adverse effect on the biophysical environment. In choosing to minimize adverse environmental effects, the consumer is faced with a variety of consumption choices (Banerjee, 1995). For example, choosing a particular type of transportation can be influenced by environmental concerns. An individual may choose to drive a smaller, more fuel efficient car, or may choose to ride a bicycle instead of driving a car to minimize environmental pollution.

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Choosing to drive a smaller car may reflect a shallower involvement in a green lifestyle than choosing to ride a bicycle. Selecting a detergent packed in recycled paper over one that is not and switching to a brand of detergent that contains less toxic chemicals are other examples of pursuing a green lifestyle. Such choices represent different degrees of greenness, but they all involve (1) assessment of the environmental impact of product/service choices and (2) behavioral change in purchasing, consuming, and disposing of the product. Hence, being green is not a dichotomous state (green vs. non-green). In fact, environmentalists make a distinction between "deep ecology" and "shallow ecology," depending on the degree of environmental concern demonstrated by lifestyle choices (Naess 1973). Being green, therefore, should be conceptualized as a continuous variable with shallow and deep involvement as the two extremes.

In addition, Litvan (1995) asserted that "Green" consumers come in many hues, as the manager of any supermarket might attest. What follows is a very good example to illustrate the degree of greenness of consumers.

> *To understand what makes different consumers buy environmentally friendly products, imagine an afternoon at the grocery store, with several shoppers roaming about to find what they need.*
>
> *In the paper-products aisle, a customer who understands terms like "pre-consumer" and "post-consumer" content is studying labels on paper towels looking for a recycled brand. The recycled towels she selects are slightly more expensive and less absorbent than a brand made of virgin fibers, but the customer is willing to make trade-offs to give recycling a boost.*

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> *The next aisle over, another shopper glances at a shelf of cleaning products and ultimately chooses a spray bottle of citrus-based cleaner. He is pleased to see the label's claim that the product is better for the environment than others containing strong chemicals, but the manufacturer's claim that its brand cleans better than all the rest was what first caught his eye. The clincher was that the cleaner is on sale for a few pennies less than other brands*.

Both of these customers would qualify as "green" consumers, according to marketing experts, even though they chose products for different reasons. For years, poll takers and marketing specialists have been studying such consumers and their convictions to determine the power of green marketing.

Walter Coddington (1993) summarised the characteristics of the green consumer according to numerous surveys done in the United States. These characteristics are illustrated in Table 3.1 overleaf:

COMPANY	SEGMENT	DEFINITION
Cambrige Reports	Green Consumer (12%)	Strongly identify with term environmentalist and support environmental organizations.
FIND/SVP	Dedicated (1.4%)	Bring environmental concerns to beat on most or all purchase decisions.
	Selective (12%)	Engage in environmentally aware shopping on selective basis, isolating specific products and companies for scrutiny.
	Impulsive (20%)	Engage in shopping on a stimulus-response basis.
J.Walter Thompson	Greener-than-Green (23%)	Make many sacrifices for the environment
	Green (59%)	Concerned about environment but make only some sacrifices.
	Light Green (15%)	Concerned but not willing to make any personal sacrifices.
	Un-Green (3%)	Plain don't care about the environment.
Roper/S.C Johnson	True-Blue Green (11%)	Actual behaviour is consistent with very strong concerns about the environment.
	Greenback Green (11%)	Commitment to the environment mainly manifested by willingness to pay substantial higher prices for green products.
	Sprouts (26%)	Show middling levels of concern about the environment and equally middling levels of behaviour response.
	Grousers (24%)	Consistently rationalise their lack of proenvironmental behaviour by offering all kinds of excuses and criticizing the poor performance of others.
	Basic Browns (28%)	Do not believe individuals can make a difference in solving environmental problems, and do not want to make a difference.

Table 3.1: Definition of Green Consumer Segments

COMPANY	SEGMENT	DEFINITION
Green Market Alert	Visionary Green (5-15 %)	Have embraced the "paradigm shift". Green is a way of life of this group, not a shopping style. Passionately committed to the environmental change.
	May-be Greens (55-80%)	Express high degree of environmental concern but act on those concerns only irregularly.
	Hard-Core Browns (15-30%)	Indifferent or implacably antienvironmentalist. Tend to have lower incomes and educational levels.
Simmons Market Research Bureau	Premium Green (22%)	Sophisticates, totally committed, in word and deed, to protecting planet Earth. Willing to spend more, do more, vote more.
	Red. White & "Green" (20%)	Traditionalists, equally committed to the environment, but think more in term of their own turf and their beloved outdoors.
	No-Costs Ecologists (28%)	Sound like dedicated ecologists, but less likely to commit actions and money, unless it's the governments.
	Convenient Green (11%)	Environmental attitudes strong but actions are more motivated by convenience in lifestyle.
	Unconcerned (19%)	The name says it all.

Table 3.1: Definition of Green Consumer Segments(cont'd)

COMPANY	SEGMENT	DEFINITION
Angus Reid	Activists (15%)	Very green, Young vanguard of the environment.
	Community Enthusiasts (8%)	Very green, Leaders in the environmentally correct behaviour but fundamentally conservative.
	Ambitious Optimists (21%)	Somewhat green, this segment, which is comprised largely of yuppies, is not overly worried about imminent environmental Armageddon, but is willing to take certain steps.
	Mainstream Followers (21%)	Moderate in terms of environmental involvement. Less interested than most in purchasing green products.
	Hostile Conservatives (13%)	Very skeptical about the severity of environmental problems. Very resistant to the environment movement.
	Disillusioned Survivors (14%)	Cynical and with fairly pessimistic environmental outlook, this group sees environmental problems as serious and support a tougher legislative climate, especially where industry is concerned.
	Privileged Bystanders (8%)	Do not care enough about the problem of the environment to make any changes in their lifestyles.

Table 3.1: Definition of Green Consumer Segments(cont'd)

In addition, accoding to a research conducted by (Giridhar, 1998) in the Indian context, there are three-categories of greenness:

SEGMENT	DEFINITION
Greens	This will include people in the true-blue greens and greenback greens categories, i.e., people who are conscious about the environment and are ready to contribute towards the cause of saving the ecology.
Browns	This will include people who are grousers or basic browns according to the above categorization, i.e., people who know are aware about the environmental activities but are indifferent towards them.
Whites	This category will include people who are unaware of the environmental consequences.

Table 3.2: Definition of Green Consumer Segments in India

Hence, as per Girindhar (1998) green consumers can be grouped according to their level of greenness.

3.4 GREEN MARKET SEGMENTATION

Hence, consumers differ in their knowledge of and concern about the environment (Schuhwerk, 1995). They can be classified by their degree of commitment to the environment according to various attitudes and behaviors (List 1993; Roper Organization 1992). Other research have assessed correlations among environmental concern, personality traits, and demographic variables (Durand and Ferguson 1982; Samdahl and Robertson 1989; Webster 1975; Wysor 1983). Several studies have investigated the relationship between environmental attitudes and product purchase (Schwepker and Cornwell 1991) or usage intentions (Alwitt and Berger 1993). Overall, findings suggest that the more involved consumers are with the environment, the more likely they are to purchase green products.

In addition, the salience literature suggests that attention to product attributes is determined by internal and external factors (Alba, Hutchinson, and Lynch 1991; MacKenzie 1986). Internally driven salience results from personal characteristics such as values and prior beliefs. This suggests that consumers who have strong beliefs about the environment are likely to pay attention to the environmental attributes of products. Alternatively, externally driven salience results from a variety of factors such as advertisements, personal selling, and word of mouth. Thus, consumers who do not have strong beliefs about the environment may also be directed to pay attention to environmental attributes of products.

According to Kotler (1997), a market consists of buyers and buyers differ in one or more ways. They may differ in their wants, resources, locations, buying attitudes and buying practices. A seller has to try different segmentation variables, alone and in combination, to view the market structure. For Kotler (1997), major segmentation variables are geographic, demographic, phycographic and behavioural.

3.5 SEGMENTING VARIABLES FOR GREEN MARKET SEGMENTATION

Numerous studies have addressed the characteristics of ecologically conscious consumers either as a primary point of investigation or as a secondary issue (Straughan *et al,* 1999). The majority of these studies have looked at, and found, demographic variables associated with self-report measures of environmental commitment, behavioral indicators of environmental commitment, or psychometric scales measuring environmental consciousness (e.g. Samdahl and Robertson, 1989; Zimmer et al., 1994). Some have offered additional attitudinal or psychographic dimensions associated with green attitudes and behavior (e.g. Roberts, 1996b; Roberts and Bacon, 1997; Stern et al., 1993). A review of these studies suggests several general indicators of an individual's propensity to engage in ecologically conscious consumer behavior.

3.5.1 DEMOGRAPHIC CHARACTERISTICS

A number of past studies have made attempts to identify demographic variables that correlate with ecologically conscious attitudes and/or consumption. Such variables, if significant, offer easy and efficient ways for marketers to segment the market and capitalize on green attitudes and behavior.

3.5.1.1 AGE AS A DEMOGRAPHIC VARIABLE

Going back to the early studies of ecology and green marketing, age as a demographic variable has been explored by a number of researchers (e.g. Aaker and Bagozzi, 1982; Anderson and Cunningham, 1972; Anderson et al., 1974; Hume et al., 1989; Kinnear et al., 1974; Leonard-Barton, 1981; McEvoy, 1972; Murphy et al., 1978; Roberts, 1995; 1996b; Roberts and Bacon, 1997; Roper, 1990; 1992; Samdahl and Robertson, 1989; Tognacci et al., 1972; Van Liere and Dunlap, 1981; Zimmer et al., 1994). The general belief is that younger individuals are likely to be more sensitive to environmental issues. There are a number of theories offered in support of this belief, but the most common argument is that those who have grown up in a time period in which environmental concerns have been a salient issue at some level, are more likely to be sensitive to these issues.

As with many of the demographic variables, however, the findings have been somewhat equivocal. Some of the researchers to explore age as a correlate to green attitudes and behavior have found non-significant relationships (e.g. Kinnear et al., 1974; McEvoy, 1972; Roper, 1990; 1992). Others have found the relationship to be significant and negatively correlated with environmental sensitivity and/or behavior as predicted (e.g. Anderson et al., 1974; Tognacci et al., 1972; Van Liere and Dunlap, 1981; Zimmer et al., 1994). Still others have found the relationship to be significant, but positively correlated (e.g. Roberts, 1996b; Samdahl and Robertson, 1989). Explanations for this positive correlation include attitudes formed as a result of "depression-era" conservation (Roberts, 1996b; Samdahl and Robertson, 1989) and/or behaviors stemming from a general increase in social and charitable activities among the middle aged (Dychtwald and Gable, 1990; Roberts, 1996b).

3.5.1.2 GENDER AS A DEMOGRAPHIC VARIABLE

A second demographic variable to be examined is gender (e.g. Arbuthnot, 1977; Brooker, 1976; Hounshell and Liggett, 1973; MacDonald and Hara, 1994; McEvoy, 1972; Roberts, 1995; 1996b; Roberts and Bacon, 1997; Roper, 1990; 1992; Samdahl and Robertson, 1989; Stern et al., 1993; Tognacci et al., 1972; Van Liere and Dunlap, 1981). The development of unique gender roles, skills, and attitudes has led most researchers to argue that women are more likely than men to hold attitudes consistent with the green movement. Theoretical justification for this comes from Eagly (1987), who holds that women will, as a result of social development and gender role differences, more carefully consider the impact of their actions on others.

As is the case with age-based green research, the results of gender-based investigations are still far from conclusive. Several studies have found the relationship not to be significant (e.g. Arbuthnot, 1977; Brooker, 1976; Samdahl and Robertson, 1989; Tognacci et al., 1972). Others have found support for the theoretical justification given (e.g. Hounshell and Liggett, 1973; Roberts, 1996b; Roper, 1990; 1992; Stern et al., 1993; Van Liere and Dunlap, 1981). Still others have found the opposite of the predicted relationship (e.g. MacDonald and Hara, 1994; McEvoy, 1972).

3.5.1.3 INCOME AS A DEMOGRAPHIC VARIABLE

Income is generally thought to be positively related to environmental sensitivity. The most common justification for this belief is that individuals can, at higher income levels, bear the marginal increase in costs associated with supporting green causes and favoring green product offerings. Numerous studies have addressed the role of income as a predictor of green consumption (e.g. Anderson and Cunningham, 1972; Anderson et al., 1974; Antil, 1978; Kasarjian, 1971; Kinnear et al., 1974; McEvoy, 1972; Newell and Green, 1997; Roberts,1995; 1996b; Roberts and Bacon, 1997; Roper, 1990; 1992; Samdahl and Robertson, 1989; Van Liere and Dunlap, 1981; Zimmer et al., 1994).

One of the more interesting hypotheses involving income stems from a study conducted by Newell and Green (1997). They contend that income and education moderate the effect that race plays on shaping environmental concern. Specifically, they found that differences between the perceptions of black and white consumers with respect to environmental issues decrease as both income and education go up. Other studies have shown a non-significant direct effect of income on environmental awareness (e.g. Anderson et al., 1974; Antil, 1978; Kassarjian, 1971; Van Liere and Dunlap, 1981). Several studies have shown the previously mentioned positive relationship between income and environmental attitudes and behaviors (e.g. Kinnear et al., 1974; McEvoy, 1972; Roper, 1990; 1992; Zimmer et al., 1994). Finally, a few studies have found the opposite, a negative relationship between income and environmental concerns (e.g. Roberts, 1996b; Samdahl and Robertson, 1989). In his study, Roberts (1996b) theorizes that the differences shown in early studies may have been washed out by the overall growth in environmental concerns across all income levels. He also cautions that although the relationship in his study was significant, the amount of variance explained was small.

3.5.1.4 EDUCATION AS A DEMOGRAPHIC VARIABLE

Level of education is another demographic variable that has been linked to environmental attitudes and behavior (e.g. Aaker and Bagozzi, 1982; Anderson et al., 1974; Kinnear et al., 1974; Leonard-Barton, 1981; McEvoy, 1972; Murphy et al., 1978; Newell and Green, 1997; Roberts, 1995; 1996b; Roberts and Bacon, 1997; Roper, 1990; 1992; Samdahl and Robertson, 1989; Schwartz and Miller, 1991; Tognacci et al., 1972; Van Liere and Dunlap, 1981; Zimmer et al., 1994). The hypothesized relationship has been fairly consistent across these studies. Specifically, education is expected to be positively correlated with environmental concerns and behavior.

Although the results of studies examining education and environmental issues are somewhat more consistent than the other demographic variables discussed to this point, a definitive relationship between the two variables has not been established. The vast majority of these studies have found the predicted positive relationship (Aaker and Bagozzi, 1982; Anderson et al., 1974; Leonard-Barton, 1981; McEvoy, 1972; Murphy et al., 1978; Roberts, 1996b; Roper, 1990; 1992; Schwartz and Miller, 1991; Tognacci et al., 1972; Van Liere and Dunlap, 1981; Zimmer et al., 1994). Samdahl and Robertson (1989) found the opposite, that education was negatively correlated with environmental attitudes, and Kinnear et al. (1974) found no significant relationship.

3.5.1.5 PLACE OF RESIDENCE

Place of residence has been another variable of interest since the early days of green research, though the majority of interest in this variable has been in the last 15 years. In nearly 30 years of research, many studies have considered the correlation between place of residence and environmental concern. Of the studies (e.g. Antil, 1984; Hounshell and Liggett, 1973; McEvoy, 1972; Samdahl and Robertson, 1989; Schwartz and Miller, 1991; Van Liere and Dunlap, 1981; Zimmer et al., 1994) to address place of residence as a correlate of green attitudes and behaviors, all but Hounshell and Liggett (1973) have found that those living in urban areas are likely to show more favourable attitudes towards environmental issues. However, Hounshell and Liggett (1973) found no significant relationship between the two variables.

3.5.2 PSYCHOGRAPHIC CHARACTERISTICS

Several studies have attempted to identify psychographic correlates of green attitudes and behaviors. Though these studies have not investigated psychographic variables in as exhaustive a manner as the research into demographics, they do provide some interesting insights into the nature of the green consumer.

3.5.2.1 POLITICAL ORIENTATION

Hine and Gifford (1991) investigated the effect of a fear appeal relating to the anti-pollution movement on several different proenvironmental behaviors. Among the significant findings, the researchers found that political orientation was significantly correlated with one of the lower-order responses, verbal commitment. Specifically, their findings suggest that those with more liberal political beliefs are more likely to exhibit strong verbal commitment than those with more conservative political views. This is in keeping with the general perception of proenvironmental issues as being a part of the "liberal" mainstream. Roberts (1996b) further confirmed this liberalism effect. His study, however, established liberalism as relevant across a general range of ecologically conscious concerns and behaviors rather than focusing on any single concern.

3.5.2.2 ALTRUISM

Based on Schwartz's norm-activation theory, Stern et al. (1993) examined the role that social-altruism and egoism played in influencing green behavior. Specifically, their discussion centers on whether social-altruism, a concern for the welfare of others, is the sole driver of environmentally friendly market behavior, or whether the positive effect of social-altruism is countered by the negative influence of egoism, which inhibits willingness to incur extra costs associated with environmentalism. Their research also explores biospheric-altruism, a concern for the non-human elements of the environment. Their findings suggest that all three of these constructs - social-altruism, biospheric-altruism, and egoism - influence willingness to take political action. However, social-altruism is not significant in predicting willingness to pay either higher income taxes or higher gasoline taxes. Further, biospheric-altruism is not significant in predicting willingness to pay higher gasoline taxes.

3.5.2.3 ATTITUDES AND RESPONSES

Perceived consumer effectiveness. Several studies (e.g. Antil, 1978; Berger and Corbin, 1992; Kinnear et al., 1974; Roberts, 1995; 1996b; Roberts and Bacon, 1997; Webster, 1975; Weiner and Doescher, 1991) have addressed the premise that consumers' attitudes and responses to environmental appeals are a function of their belief that individuals can positively influence the outcome to such problems. This attitude or belief is referred to as perceived consumer effectiveness (PCE). Findings have been fairly conclusive that PCE is positively correlated with ecologically conscious consumer behaviour (ECCB). Recently, Roberts (1996b) found that this was the single strongest predictor of ECCB, surpassing all other demographic and psychographic correlates examined.

The relationship between attitudes and behavior is one that has been explored in a variety of contexts. In the environmental literature, the question has been addressed by exploring the relationship between the attitudinal construct, environmental concern, and various behavioral measures and/or observations. Those studies (e.g. Antil, 1984; Kinnear et al., 1974; Lepisto, 1974; Roberts, 1995; 1996b; Roberts and Bacon, 1997; Van Liere and Dunlap, 1981) examining environmental concern as a correlate of environmentally friendly behavior have generally found a positive correlation between the two.

3.5.3 ASSESSING CURRENT SEGMENTATION ALTERNATIVES

(Straughan, 1999) argues that assessing the usefulness of the aforementioned variables for segmenting the markets for green products and services, one must consider the following criteria to judge segmentation alternatives in general:

(1) segment size,
(2) segment accessibility,
(3) ease of identification,
(4) strategic/operational effectiveness, and
(5) segment stability.

It has long been held that the "ideal" approach to segmenting the market for any product is the approach that optimizes these five constructs. The current state of ecological consumer profiling will be examined in light of these criteria. These aspects are discussed below:

3.5.3.1 SEGMENT SIZE

At this point in its development, few doubt that the overall market for green goods and services is large enough for, if properly managed, a firm to operate profitably (Roberts, 1995). As such, the size of green market segments is no longer in question, irrespective of the segmentation approach used.

3.5.3.2 SEGMENT ACCESSIBILITY

The accessibility of these segments, in terms of both logistics and communication, is not in doubt. Firms have clearly shown the ability to both communicate with ecologically conscious consumers and to reach them effectively with appropriate goods and services. As such, the usefulness of the various approaches to isolating ecologically conscious consumers from the mass market boils down to questions relating to ease of identification, usefulness in strategic and operational planning, and segment stability.

3.5.3.3 EASE OF IDENTIFICATION

As is often the case in marketing, the simplest segments to identify are based on demographic profiling. Perhaps that explains the relatively high volume of research done on demographic segmentation of green consumers. As mentioned, the typical profile given for green consumers - young, mid-to high-income, educated, urban women - is totally dependent upon demographic profiling. There is little doubt that demographic variables present the easiest way to discriminate between those consumers who share a concern for the environment, and those who do not. The real question that must be asked is this. How effective is demographic profiling for green marketers?

3.5.3.4 STRATEGIC/OPERATIONAL EFFECTIVENESS

It is important to determine whether the advantages demographic of profiling of green consumers offers over psychographic profiling in terms of ease of use are more than offset by the relative strength of the associations between psychographic variables and ecologically conscious consumption. In other words, psychographic variables provide a stronger and therefore more useful profile of green consumption. For example, Roberts (1996b) reported an R2 of 0.06 for a model using age, sex, income, education, and occupation (all of which were individually statistically significant) to explain ECCB (Ecologically Conscious Consumer Behaviour) . In contrast, when psychographic correlates were introduced, R2 increased to 45 percent. Further strengthening this argument, altruism - a demonstrated psychographic correlate of green consumption - was not included in the Roberts (1996b) study. It is quite likely that the inclusion of altruism would have further strengthened the usefulness of his segmentation model.

3.5.3.5 SEGMENT STABILITY

Finally, when one considers the stability of resulting segments, there are serious questions raised regarding demographic profiling of green consumption. As discussed previously, the results of the demographic research range from equivocal to contradictory. Several explanations exist for these disparate findings. First, the various studies operationalize green consumption in a wide variety of ways. For example, the "dependent" variables used across these studies range from general attitude measures to incident analyses of specific types of environmentally friendly behavior (e.g.

household recycling). As such, study-to-study comparisons may be expected to result in seemingly contradictory findings. An alternative explanation for these contradictory findings, however, relates to the maturation of the green marketing phenomena. Quite simply, all of the studies might provide accurate snapshots of green consumption at that point in time. Because the movement was in the early stages of its life cycle, however, these relationships might change as time passes. Thus, what has been described throughout the green marketing literature is an unstable or "...schizophrenic profile of the demographic characteristics of the green consumer" (Roberts, 1996b, p. 219). Unfortunately, while the psychographic research has been somewhat more consistent, there has not been enough research on these various correlates of green consumption to draw valid conclusions about the stability of psychographic profiling. What is needed is additional research into the psychographic correlates of ecologically conscious consumer behavior.

3.6 CONCLUSION

This chapter has covered the main aspects pertaining to the behaviour of the green consumer. Segmenting the green market is a very ambiguous task as the attitudes of the consumer does not always correlate with his or her behaviour. However, much research has been done in this field and segmentation variables have been studied to know their relevancy for the green consumer. Hence the review of the literature has been very enriching. Furthermore, as Stisser (1995) explained in respect of environmental claims, for companies that want to take advantage of the "green" niche, the polarization itself shouldn't be cause for concern. The audience for such marketing claims, obviously, is not the apathetic but those consumers who are interested in "green" goods. According to the author, the number of green consumers will continue to grow in future. Chapter 6 and 7 will deal with the methodology and empirical findings of green consumer behaviour in Mauritius.

4.0 INTRODUCTION

Marketing research is the function that links the consumer, customer, and public to the marketer through information – information used to identify and define marketing opportunities and problems; to generate, refine, and evaluate marketing performance; and to improve understanding of the marketing process (Kotler, 1997). Every research has to be done in a methodological and scientific manner for validity and reliability. This chapter presents the methodology that has been used for conducting five focus groups in the context of a study on green marketing practices in Mauritius.

4.1 METHODOLOGY

The following methodology has been used so as to conduct the focus groups.

1. Formulating the research problem
2. Extensive literature survey
3. Preparing the research design
4. Determining the sample design
5. Collecting the data
6. Execution of the project
7. Analysis of data
8. Generalisation and interpretation
9. Preparation of the focus group report.

4.2 FORMULATING THE RESEARCH PROBLEM

According to Johnson (1998), the very notion of sustainable development suggests that business organizations, even if only small household "firms," must be the principal actors in bringing about viable relationships between society and nature. While many social scientists tend to think that business organizations and management theories are more a part of the problem than they are a solution, a review of recent theory and research on the business-society-nature relationship can yield beneficial insights about the green organization or firm, and about the organizational behavior and change process commonly referred to as "the greening of business."

In this light, focus groups have been conducted with Marketing Managers and/or Managing Directors of enterprises in Mauritius to understand where do they stand in respect of the evolutions a greener tomorrow.

The objectives of the focus group were to assess:

- Management's view of the key pressures that affect the firm's development of 'green' products and the firms' response to green pressure;
- The firm's marketing objectives for 'green' products, their strategies, commitment to R&D and the firm's influence on the demand for green products.
- Pricing, communication and promotion strategies for 'green' products.
- Distribution concerns, particularly intermediaries' influence on making the firm's new green innovations to consumers
- Management's perception of the barriers to future 'green' product uptake and diffusion in Mauritius.

4.3 EXTENSIVE LITERATURE SURVEY

An extensive review of different articles and websites were done to prepare the focus groups. The main findings from the literature have been presented in Chapter Two of the study.

4.4 PREPARING THE RESEARCH DESIGN

According to Kothari (1990), the function of research design is 'to provide for the collection of relevant evidence with minimal expenditure of effort, time and money'. A research design is the basic plan, which guides the data collection and analysis phases of the research project.

4.4.1 EXPLORATORY RESEARCH

This focus group research was more of an exploratory nature as it meant to probe the Mauritian executives mainly about their perceptions of the green marketing phenomenon. In this respect, focus groups were used to probe the businessmen in Mauritius about their interest towards greening.

4.4.2 DESCRIPTIVE RESEARCH

This research can be also described as a descriptive one. It had not been only a fact-gathering expedition but the data to be collected had a definite purpose, in the forms of the objectives that were set. In this regards, the following areas were identified:

1. General Perceptions about green marketing;
2. Motivations/Pressures to become green;
3. Marketing strategies – the 4P's;
4. The Mauritian consumers; and
5. The future.

4.5 DETERMINING THE SAMPLE DESIGN

A sample is a segment of the population selected to represent the population as a whole (Kotler, 1997). "Sampling is a central part of everyday life. Dipping toe in the water, flicking through a magazine, 'zapping' across television channels, sipping a glass of wine are all examples of the kind of routine sampling activity we are constantly engaged in. Just as sampling is an integral element of social life, so it is at the heart of all 'scientific' activity, whether in the human or natural sciences." (Deacon, 1999) The sample design consists of defining the population, selecting the sampling method, the sample size and specifying the sample plan.

4.5.1 DEFINING THE POPULATION

The population of a piece of research is never constant; it is defined by the research objectives (Deacon, 1999). The population for the focus groups has been defined as all the large enterprises in Mauritius. In this respect information of the list of companies to be contacted was obtained from the Central Statistical Office (Mauritius).

4.5.2 SELECTION OF THE SAMPLING METHOD

Stratified random sampling has been used so as to target the enterprises in the different sectors. A three level stratification has been used to reach the final strata. That is, firstly by sector, secondly by industry and thirdly by business activity.

4.5.3 THE SAMPLE SIZE

How many people should de surveyed? "Large samples give more reliable results than small samples. However…if well chosen, samples of less than 1 percent of a population can often give good reliable results" (Kotler, 1997). In this study, 'rule of thumb' has been used to choose a sample size and a sample 800 enterprises.

4.5.4 SPECIFYING THE SAMPLING PLAN

The sampling plan involved the specification of how each of the decisions made so far were to be implemented. In order to get the maximum of participants, the following steps have been followed:

1. Sending an invitation letter to executives of the 800 companies requesting if they are interested to participate in the Focus Group.

2. The executives replied via electronic mail, telephone or through the post.

3. All the confirmed participants were sent a confirmation letter specifying the exact date and time for their participation. Follow-up was also made via the telephone and/or electronic mail.

By following this plan 50 participants (refer to Appendix A) participated in the focus groups, that is, a response rate of 6.25%.

4.6 COLLECTION OF DATA

Five focus groups, with an average of 10 participants per group, were conducted. So as to facilitate the collection of the data from the discussion in the focus groups, questionnaire was designed (refer to Appendix B). In addition, to the moderator a research assistant was appointed to take note of all the discussions that emerged in the focus groups.

4.7 EXECUTION OF THE PROJECT

Five focus groups were conducted in Room 2.14, New Academic Complex, Faculty of Law & Management, University of Mauritius between the 17 of June 2003 and the 19 of June 2003, that is:

1. 17 June 2003 between 16:00 – 17:00;
2. 17 June 2003 between 17:00 – 18:00;
3. 18 June 2003 between 16:00 – 17:00;
4. 18 June 2003 between 17:00 – 18:00; and
5. 19 June 2003 between 16:00 – 17:00.

4.8 ANALYSIS OF DATA

Analysis of data precedes data collection. The analysis of data requires a number of closely related operations, which were performed with the purpose of summarising the collected data and organising these in such a manner that they answer the research question. The operations are as follows:

- Editing
- Coding
- Tabulation

4.8.1 EDITING

Errors and omissions do occur when data are collected. Editing ensured that the quality of raw data collected was in line with the standards set. In addition, the editing for each questionnaire was done practically just after the data for that questionnaire was collected so as to ensure reliability of the response.

4.8.2 CODING

The answers to questions asked through the questionnaire were coded using SPSS 10.05 as analytical software. For multiple choice questions and attitude measurement questions, numbers have been assigned to the answers so that the interviewer can input them in SPSS. But, for open-ended questions, answers had to be grouped together first, and then numbers could be assigned to them.

4.8.3 TABULATION

The SPSS 10.05 software automatically tabulated the codes that had been input in it.

4.8.4 ANALYSIS

After these operations have been successfully dealt with, the researcher proceeded further with the analysis. For the analysis, the Standard Package for Social Sciences (SPSS) 10.05 was used to calculate the Percentages and Mean. In addition, Compared Mean and Pearson Bivariate Correlation were used to know the relationship between variables from different questions. Moreover, Microsoft 2000 was used to draw charts that made the analysed data easier to interpret and understand.

4.9 GENERALISATION AND INTERPRETATION

Generalisation and interpretation of the analysed data provide the researcher with the final inferences that can be made from the data collected through the hypothesis that have been tested and also through the interpretation of the findings.

4.10 PREPARATION OF THE REPORT

The final step in the research process was the write up of the report in which the researcher uses the finding supported by the results of the focus group to get the opinion of the executives about green marketing practices in Mauritius.

4.11 LIMITATIONS OF THE FOCUS GROUP

The main limitation of the focus group can be expressed in the limited time that was available to probe all the respondents. As common in almost all group discussions, not all the participants would talk freely. Hence, there is always the possibility that some participants did not participate fully in the discussions though the moderator tried to probe every participant in each group.

4.12 CONCLUSION

This chapter has provided a framework on how to plan for the focus groups in regards to green marketing in Mauritius. The next chapter will present the findings of the focus groups.

CHAPTER Five

EMPIRICAL FINDINGS - ANALYSIS OF FOCUS GROUP INTERVIEWS AMONG MAURITIAN COMPANIES

5.0 INTRODUCTION

This chapter presents the analysis of responses obtained in Focus Groups in the context of a national study on Green Marketing, namely:

'A study of the buyer characteristics of the Green Consumers in Mauritius and their implications for marketing strategy.'

The main aim behind the Focus group discussions was to gain an insight on the perception of managers in various sectors of Mauritius in respect to how green marketing practice is evolving in Mauritius. The other objectives were as follows:

- Management's view of the key pressures that affect the firm's development of 'green' products and the firms' response to green pressure;
- The firm's marketing objectives for 'green' products, their strategies, commitment to R&D and the firm's influence on the demand for green products;
- Pricing, communication and promotion strategies for 'green' products;
- Distribution concerns, particularly intermediaries' influence on making the firm's new green innovations to consumers; and
- Management's perception of the barriers to future 'green' product uptake and diffusion in Mauritius.

The next step in this national study on Green Marketing practice consisted of a national survey of the Mauritian households to explore their willingness to engage in the green marketing evolution.

The analysis of the focus group was divided in six main sections:

Section 1: Profile of the participants;

Section 2: General issues;

Section 3: Motivations/Pressures to become green;

Section 4: Marketing Strategies – The 4P's of the Marketing mix;

Section 5: The Mauritian Consumer; and

Section 6: The Future.

5.1 SECTION 1: PROFILE OF THE PARTICIPANTS

Fifty participants have attended the Focus Groups which were entitled:

Green Marketing Practices in an Small Island Economy – a case study of Mauritius

For the focus groups, five sessions of one hour each were held at the Conference Room of the Faculty of Law and Management, University of Mauritius on the 17th, 18th and 19th of June 2003. The fifty participants represented companies of Mauritius based on different sectors of the Mauritian economy and the activities that those companies perform in their respective industries. The profile of the participants per industry and per activity is illustrated in Figure 1.1 and Figure 1.2 in the next two pages. Please note that the classification of the industries and activities has been done according to the characterisation used by Central Statistical Office (Mauritius) in "The Digest of Business Activity Statistics" (2002) of large companies.

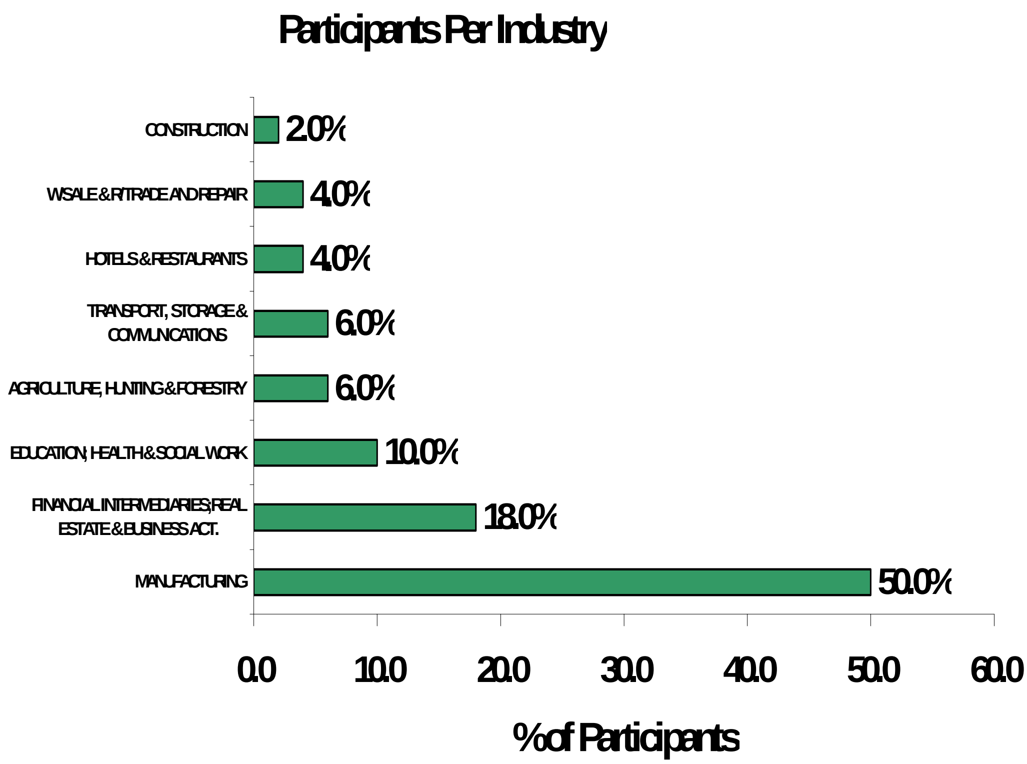


Figure 5.1: Participants per Industry

(n=50)

Half of the participants were from the Manufacturing Industry (50.0%). The second in the row was the Financial Intermediaries, Real Estate & Business Activities Industry (18.0%). Other industries were, the Educational, Health and Social Work (10.0%), Agriculture, Hunting & Forestry (6.0%), Transport, Storage & Communication (6.0%), Hotel & Restaurants (4%), Wholesale & Retail Trade & Repair (4.0%) and the Construction Industry (2.0%).

In addition, Figure B shown overleaf describes the profile of participants industrywise.

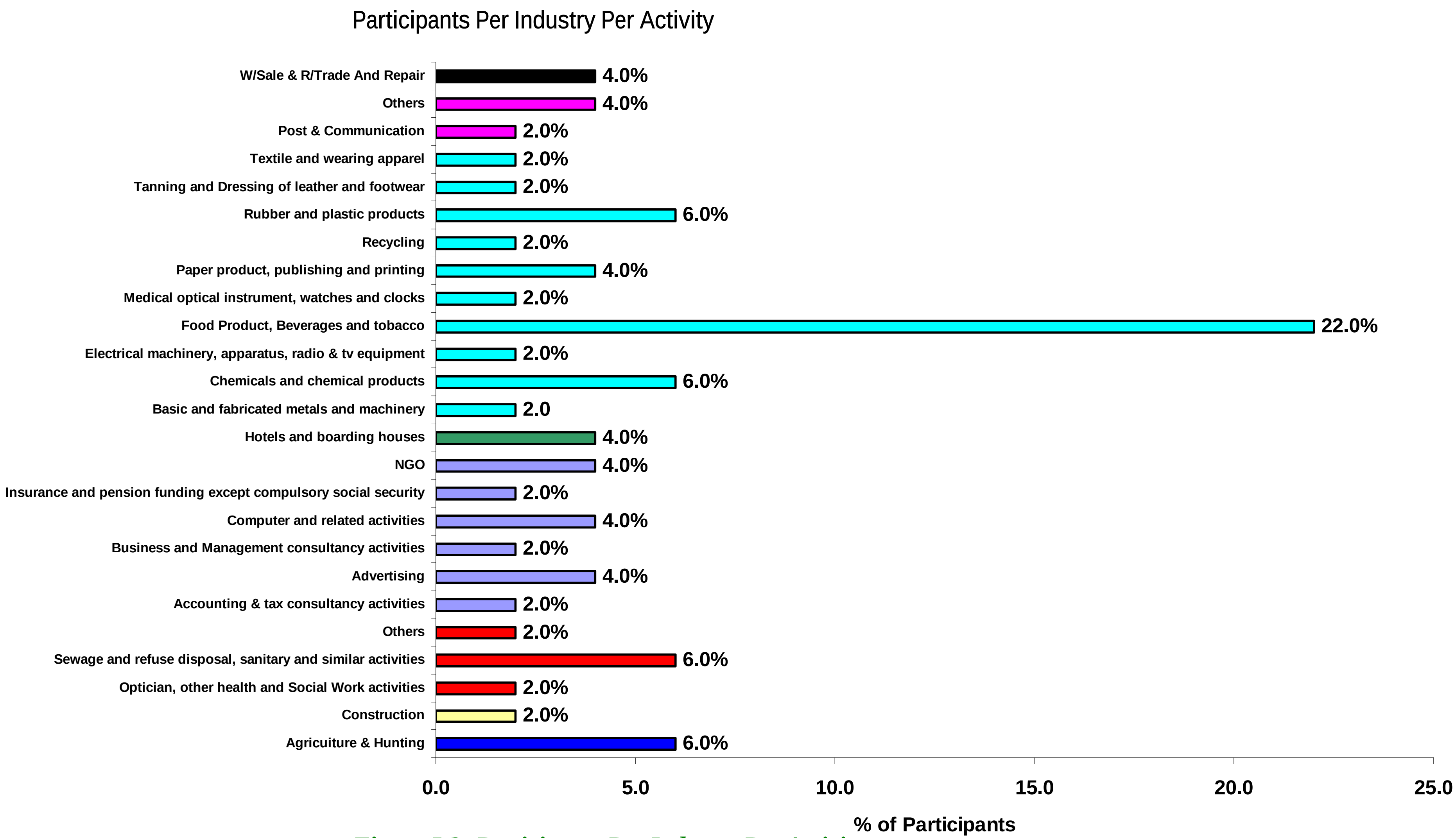


Figure 5.2: Participants Per Industry Per Activity

5.2 SECTION 2: GENERAL ISSUES

This section of the Focus Group discussions was divided into three main parts dealing with the overall opinions about green marketing related issues namely:

1) The “Green Star” logo;
2) Importance of the environment in today’s business world;
3) General statements related to green marketing.

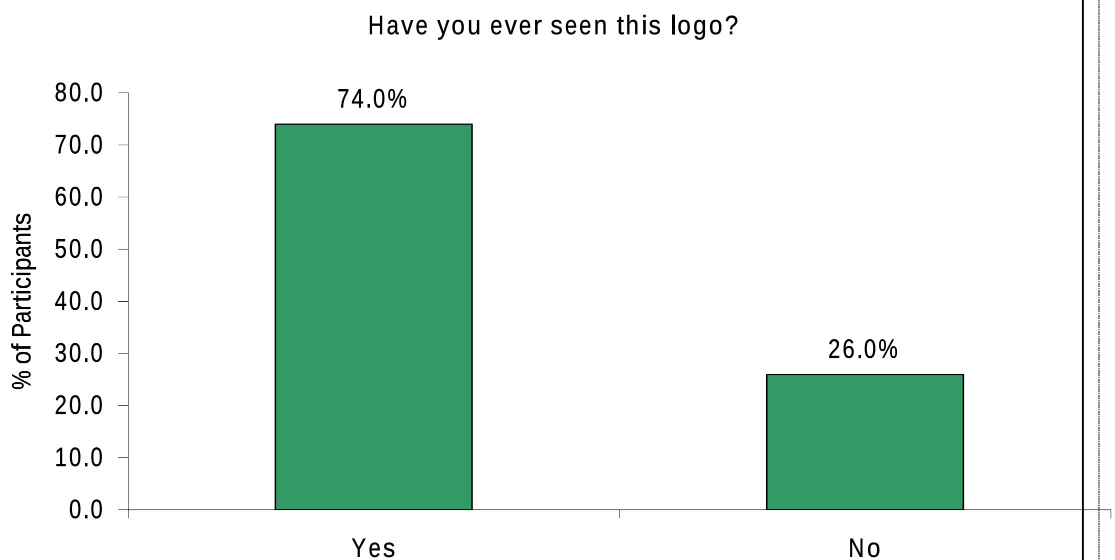


Figure 5.3: Have you ever seen this logo?

(n = 50)

5.2.1 PART I: THE "GREEN STAR" LOGO

The question was set as a teaser question so as to get the participant, on track and to ascertain their overall awareness on the concept of Green Mauritius. The logo concerned is the "Green Star" logo. This logo appears on all computer monitors when they are turned on. In fact, the ENERGY STAR is:

> " a government-backed program helping businesses and individuals protect the environment through superior energy efficiency. Energy efficient choices can save families about a third on their energy bill with similar savings of greenhouse gas emissions, without sacrificing features, style or comfort. ENERGY STAR helps you make the energy efficient choice.
>
> Because a strategic approach to energy management can produce twice the savings - for the bottom line and the environment - as typical approaches, EPA's ENERGY STAR partnership offers a proven energy management strategy that helps in measuring current energy performance, setting goals, tracking savings, and rewarding improvements".

As it can be seen from Figure 5.3, nearly three out of four participants (74.0%) have seen the "Green Star" logo. Only 62% of the participants have mentioned the "where" of this logo. Main answers are "Computer Monitors" (34.5%), "Refrigerators" (6.5%) and "Various Electrical Equipments" (6.5%).

	Opinion about the "Green Star" logo	% of Participants
1	Well recognised logo	6.7
2	Not very catchy	16.7
3	Message not clear	16.7
4	Creates awareness about importance of saving energy	33.3
5	Creates awareness about protecting the environment	16.7
6	Not enough people are exposed to it	3.3
7	Thought provoking	3.3
8	Seen everyday but overlooked	3.3
9	Total	100.0

Table 5.1: Opinion about the "Green Star" logo

(n=30)

The opinion about this logo has been expressed by 60% of the participants. The main view put forward for the existence of this logo is that it "creates awareness about the importance of saving energy" (33.3%). The other opinions expressed are summarized in Table 5.1 above.

5.2.2 PART II: IMPORTANCE OF THE ENVIRONMENT IN TODAY'S BUSINESS WORLD.

The participants were asked to rate the importance of "the environment in today's business world " on a five point Likert Scale where 1 = "Not Important at all" and 5 = "Very Important".

	Mean Score	Standard Deviation
Importance of the Environment in Today's Business World	4.68	0.65

Table 5.2: Importance of the Environment in Today's Business World

(n = 50)

Nearly all the participants are of the opinion that the environment plays a fundamental role in today's business world (mean = 4.68). This is very interesting to note as the remaining part of the analysis of the focus groups evolves around this finding on the environment. Being seen as important is one thing but the proportion of company executives practicing such environmentally sound activities remain unexplored. Also, it is important to determine to what level they can shoulder the responsibility towards greening.

In addition to the importance of the environment in the world, in respect of companies, the following issues were also raised:

- Mauritius is market driven; the business must try to push green products;
- Businesses should emphasise on the environment in their mission statements;
- Business is more concerned about the profit-making motive. Green efforts should be economically viable; if they are profitable first then only businessmen would be interested in doing social work;
- Banks and other financial institutions can encourage green marketing practices. For example, the Co-operative Bank in England only helps those companies which are environment friendly.

5.2.3 PART III: GENERAL STATEMENT

In this part of Section 1, the participants were presented with five general statements to rate along a 5 point scale where 1 = "Strongly Disagree" and 5 = "Strongly Agree".

The first three statements were essentially related to **"**who must shoulder the responsibility towards 'greening'? " – Consumers and/or Government and/or Businesses. The mean score and standard deviation of the statements concerned are as in Table 5.3 overleaf.

		Mean Score	Standard Deviation
1	Green businesses essentially are a reflection of green consumerism.	3.62	1.05
2	Green businesses are a product of public policies and regulation that compel businesses of all kinds to undergo “greening,” or “ecological modernization”	3.40	1.26
3	Green businesses are largely a reflection of the firm or corporate worldview	3.56	1.07

Table 5.3: General Statements on Green Marketing

(n = 50)

On an overall basis, nearly all the participants are of the opinion that promoting green marketing remains the responsibility of all the three main stakeholders - Consumers and/or Government and/or Businesses - and should be pushed and/or pulled by all three bodies. This is explained by the mean values of all the three first statement above being nearly similar (mean between 3.40 : 3.62).

		Mean Score	Standard Deviation
4	"The 'green revolution' is about more than simply marketing products as green. It's about ensuring that those products genuinely are green; ensuring that the entire company is green. This process doesn't begin in the marketing department, it ends there."	4.20	1.05

Table 5.3: General Statements on Green Marketing (cont'd)

(n = 50)

In addition, this statement, which is related to the statement 3 on the previous page, has scored a mean of 4.20 which demonstrate that it is the responsibility of the whole organisation and not only that of the marketing department to be green. This has been confirmed by using the Pearson Bivariate Correlation Coefficient which shows a relatively weak but positive correlation between the two statements, r=0.334 and the probability of the correlation occurring by chance is less than 1 percent (**) at p< 0.01 level.

	Pearson Correlation
Green businesses are largely a reflection of the firm or corporate worldview "The 'green revolution' is about more than simply marketing products as green. It's about ensuring that those products genuinely are green; ensuring that the entire company is green. This process doesn't begin in the marketing department, it ends there."	r = 0.334**

** Correlation is significant at the 0.01 level (2-tailed).

(**) at p< 0.01

(n = 50)

		Mean Score	Standard Deviation
5	For organizations to position green products, or communicate their environmental efforts, to members of the population who are likely to be concerned about environmental issues, green consumer segments need to be identified.	4.08	0.88

Table 5.3: General Statements on Green Marketing (cont'd)

(n = 50)

The last statement in this section addressed the need to identify specific market segments for green products and eventually the need to segment the green consumers. The statement has been given a mean score of 4.08 and has a very small standard deviation. Hence, green products definitely require the concept of segmentation and strategy formulation.

5.3 SECTION 3: MOTIVATIONS/PRESSURES TO BECOME GREEN

There may be various motives and/or pressures that can push a company to make green decisions. In this respect, the Motives for Environmental Standards Adoption of the ISO 14000 certification have been used to find out about their relevancy to the industries represented by the participants. A five point scale has been used where 1 = "Not Relevant at all" and 5 = "Very Relevant". The findings are as follows:

		Mean Score	Standard Deviation
1	Corporate Social Responsibility A motive based on ethical perspective of business's role in society.	4.16	0.95
2	Differentiation The ability to obtain a price premium due to the effect of differentiation; the potential for increased sales and/or market share due to differentiation	3.39	1.27
3	Entry Barrier Certification as a barrier to entry in some markets resulting in less competition.	3.24	1.07
4	Image Enhancement Voluntary adoption of environmental standards may enhance corporate image which allows some special considerations when dealing with public stakeholders.	4.29	0.79
5	Legal Immunity Voluntary adoption of environmental standards may help protect firm against charges of environmental negligence.	3.59	1.22
6	Cost Savings The adoption of sound environmental practices such as energy conservation and recycling may actually save the organization expenses, including lower insurance rates.	3.69	1.34
7	Influence on Legal Standards Voluntary adoption of environmental practices allows commerce to have input on standards and may pre-empt regulations.	3.29	1.19

Table 5.4: Motives for Environmental Standards Adoption

(n = 49)

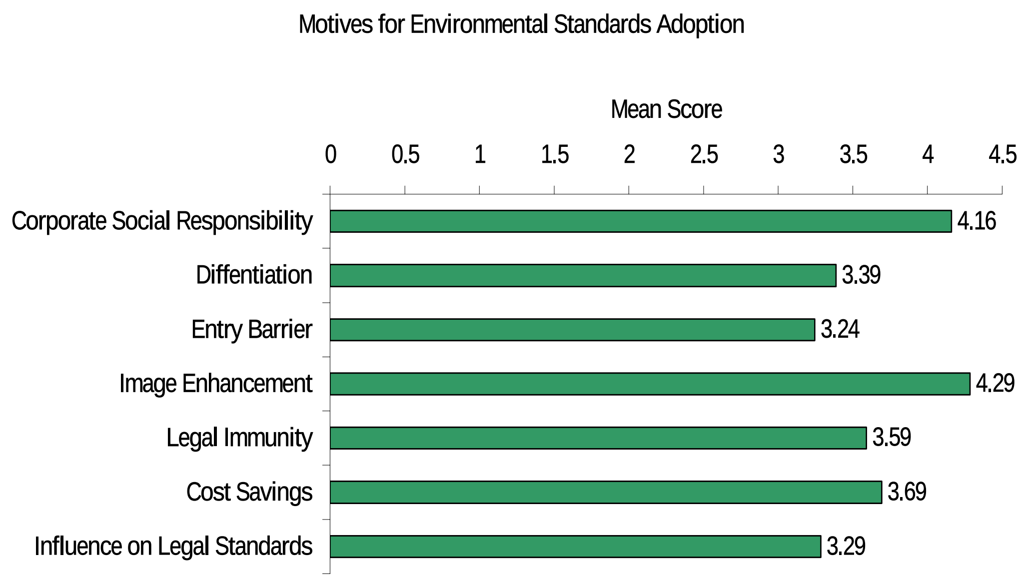


Figure 5.4: Motives for Environmental Standards Adoption

(n=49)

Key

Not Relevant at all	1
2	2
3	3
4	4
Very Relevant	5

As per Figure 5.4 above, it is clear that "Image Enhancement" is the first motive/pressure to become green with a mean score of 4.29 in a 5-point scale. The second motive/pressure is "Corporate Social Responsibility" with a mean score of 4.16. Hence, businesses in Mauritius view green decisions to be mostly linked with the overall corporate strategy.

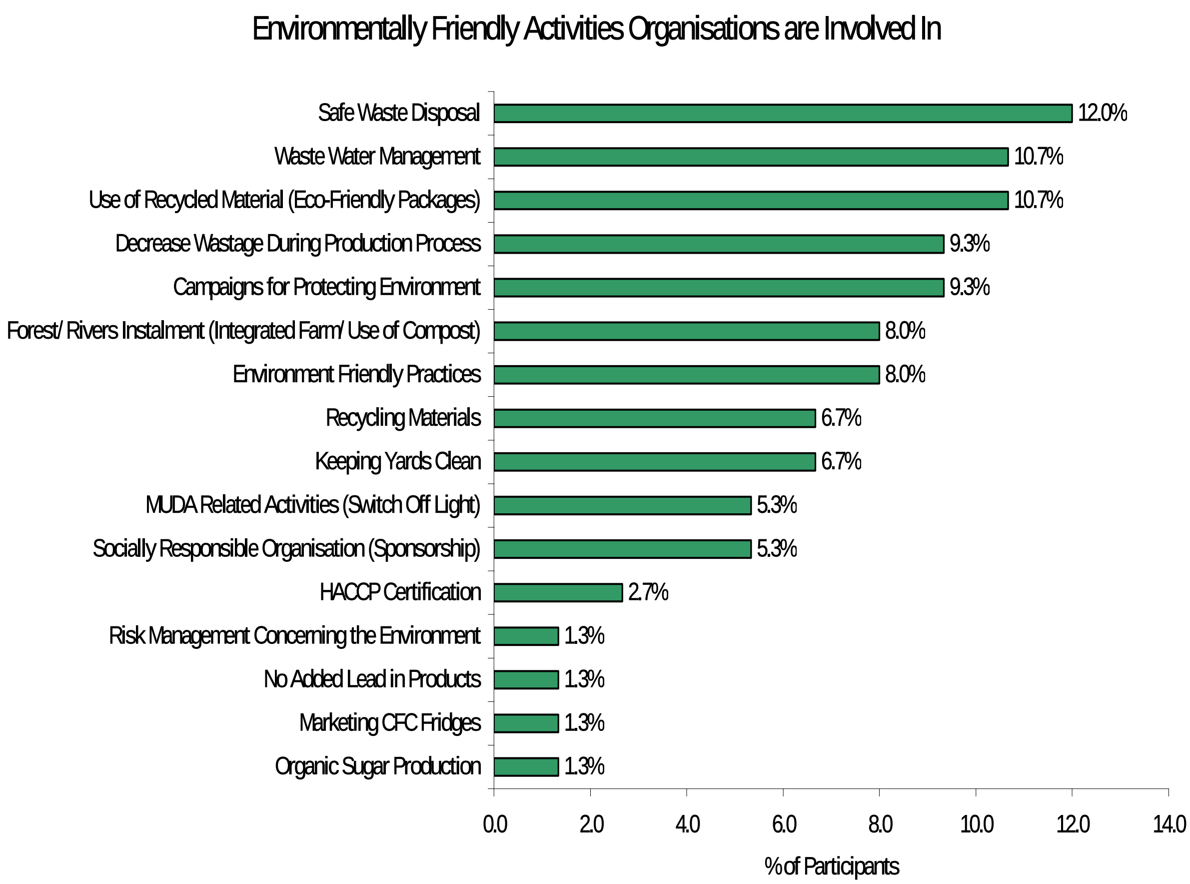


Figure 5.5: Environmentally Friendly Activities Organisations Are Involved In

(n=47)

(Note that the answers are not mutually exclusive)

In addition, the participants were required to discuss the various environmental friendly activities that their companies usually practice. The first four activities mentioned by the participants as being a common practice in their respective organisation are related to waste. That is, “Safe Waste Disposal” (12%), “Waste Water Management” (10.7%), “Use of Recycled Materials” (10.7%), “Decrease Wastage During Production Process” (9.3%).

5.4 SECTION 4 – MARKETING STRATEGIES – THE 4 P'S

This section is geared towards the factors that deal with the setting up and implementing of the firms marketing strategies with respect to green marketing practices. The 4 P's of the marketing mix have been considered and their link with green marketing strategies have been assessed. Hence this section is composed of mainly of four parts.

5.4.1 PART I: PRODUCTS

Jacquelyn A. Ottman (1997), a renowned consultant in the field of green marketing has identified four myths that are associated with green products as shown in Table 5.5. For the Mauritian managers, along a five-point scale where 1= "Disagree Completely", 2 = "Disagree", 3 = "Neither Agree nor Disagree", 4 = "Agree" and 5 = "Agree Strongly", the mean score as rating has revealed the following:

		Mean Score	Standard Deviation
1	Green products cost more.	3.82	0.92
2	Green products don't perform as well as conventional products.	2.26	0.94
3	Green products appeal only to a small niche.	3.16	1.02
4	Green-inspired competitive advantages are often temporary.	2.84	1.13

Table 5.5: Myths about green products

(n = 50)

The findings revealed that the participants “agree” with the myth that “green products cost more” and that these “products appeal only to a small niche” (mean = 3.82 and 3.16 respectively). However, the participants “neither agree nor disagree” with the myth that “green products don't perform as well as conventional products” and “green-inspired competitive advantages are often temporary” (mean = 2.26 and 2.84 respectively).

5.4.1.1 TRADE OFF OF PRODUCT ATTRIBUTES IN FAVOUR OF A GREENER PRODUCT

		Mean Score	Standard Deviation
1	Product Performance	2.80	1.31
2	Quality	2.78	1.53
3	Image	2.92	1.43
4	Safety	2.60	1.63
5	Brand	2.92	1.48

Table 5.6: Trade off of product attributes in favour of a greener product

(n = 50)

It is generally believed that to produce green products, some product attributes found in conventional products will have to be forgone. It was deemed crucial to examine the views of managers on the pertinent issue. To this end, the participants were asked to rate the above five attributes along a five-point scale where 1 = "Not at all" and 5 = "To a large Extent".

All the participants have a mean ranging between 2.50 and 2.92 as illustrated by the mean scores presented in Table 5.6 above. But their opinion was more inclined towards the third score, which shows that managers do agree to some extent that there must be some trade off in terms of product attributes to move from conventional products to greener products.

5.4.1.2 PRODUCTS & PACKAGING

The Packaging Decision: participants were asked to record their views on the importance to their company's packaging decision in relation to green marketing and/or their own views for 35 statements on a five-point scale, where 1 = unimportant and 5 = extremely important. The findings are presented in the following table in descending order to highest mean score possible, that is, 5,:

		Mean Score	Standard Deviation	(n=)
1	Protection of consumer	4.50	0.85	48
2	Protection of product	4.47	0.79	49
3	Information for consumer on product use	4.15	0.95	46
4	Label specifies contents clearly	4.12	1.19	43
5	Consumer acceptance	4.09	0.92	43
6	Labelling legal requirements	4.02	1.16	45
7	Maximum convenience for consumer	3.98	1.1	48
8	Enhances corporate identity	3.93	1.05	46
9	Repeat purchase by consumer	3.86	1.15	44
10	Ease of opening for consumer	3.84	1.21	43
11	Attraction of consumer 'Buy me'	3.79	1.18	48
12	Pilferage/tamper evident	3.77	1.32	43
13	Ease of handling during distribution	3.72	1.25	46
14	Long shelf life of product	3.60	1.28	45
15	Enhances brand or 'no name brand' character	3.60	1.01	43
16	Material reduction used in package	3.55	1.2	44
17	Bar coding considerations	3.53	1.38	43
18	New packaging forms and devices for consumer	3.52	1.2	44
19	Time and labour saving package for consumer	3.49	1.23	43
20	Easily compressed disposable package	3.47	1.37	43
21	Low cost packaging	3.46	1.09	48

Table 5.7: The Packaging Decision Statements

Table 5.7 cont'd

		Mean	Standard Deviation	(n=)
22	Variety of sizes	3.36	1.33	44
23	Ease of stacking by retailer	3.35	1.27	43
24	Special promotions for marketer	3.35	1.16	43
25	Requirement of package to be recyclable	3.33	1.37	48
26	Recyclability of the package	3.02	1.45	48
27	Package can be resealed by consumer	2.98	1.37	43
28	See through package	2.98	1.49	43
29	Package is recoverable	2.95	1.26	44
30	Package designed to be reusable	2.95	1.48	43
21	Ease of price marking	2.93	1.42	43
32	Less shelf space required at point of sale	2.84	1.42	43
33	Designed to be returnable	2.83	1.44	46
34	Single type of material used	2.76	1.23	42
35	Microwave suitability of package	2.40	1.35	43

Table 5.7: The Packaging Decision Statements (cont'd)

(Note that: this question was not attempted by all the participants)

The most important element of the package for the participants is the "Protection of the Consumer" (mean = 4.50). However, in respect of "Recyclablility of the package" the "Package designed to be reusable", the mean scores are 3.02 and 2.95 respectively, that is, the participants found this statement as close to "neither important nor important".

It has been suggested that there may be a number of trade-offs between the marketing/ logistical functions of packaging and the environment. Kassaye and Verma (1992) echoed this view when they said:

> "Without doubt one of the most difficult tasks consumer goods manufacturers and marketers face is balancing environmental concerns with the essential functions of packaging. One of manufacturers' primary concerns is the safety of lighter weight packages. Another concern is the trade-off resulting from less packaging; that is, whether or not less packaging results in less advertising space, less protection, and less sales revenue".

Similarly, Livingstone and Sparks (1994) argue that:

> "Companies are faced with new dilemmas. They have to provide packaging which is environmentally acceptable, yet still practical, in order to protect the product, and in an attractive way, in order to promote it. Marketers are concerned that ecologically sound packaging may mean less attractive packaging that will deter potential purchasers".

Hence, in addition to the 35 statements listed in Table 5.7, as packaging is a very important element, five more statement in terms of sales packaging trade-offs were set to establish specific link to green marketing.

		Mean Score	Standard Deviation
1	In most cases, the more environmentally friendly the sales package is, the less aesthetically pleasing it is to consumers.	2.31	1.12

Table 5.8: Sales Packaging Trade-off Statements

(n = 42)

The participants tend to disagree (mean = 2.31) with the first statement. Hence, for them, green packaging is not necessarily less aesthetically pleasing to consumers.

		Mean Score	Standard Deviation
2	In most cases, making a sales package environmentally friendly will result in the package being less convenient for consumers to handle.	2.29	0.99

Table 5.8: Sales Packaging Trade-off Statements (Cont'd)

(n = 42)

To the second statement relating to environmentally friendly package "being less convenient for consumers to handle, the participants also disagree" (mean = 2.29).

		Mean Score	Standard Deviation
3	In most cases, making a sales environmentally friendly package will create difficulties in protecting the product on the shelf.	2.19	0.94

Table 5.8: Sales Packaging Trade-off Statements (Cont'd)

(n = 42)

The participants also disagree with the third statement.

		Mean Score	Standard Deviation
4	Sales packaging is a major environmental concern.	3.55	1.19

Table 5.8: Sales Packaging Trade-off Statements (Cont'd)

(n = 42)

However, to the statement, "Sales packaging is a major environmental concern", the participants have a mean score of 3.55 which depict a high average level of agreement with the statement.

		Mean Score	Standard Deviation
5	Assuming it is not possible to have a sales package which both enhances saleability of the product AND is compatible with the environment, the ability of a sales package to sell a product is more important than its compatibility with the environment.	3.14	1.00

Table 5.8: Sales Packaging Trade-off Statements (Cont'd)

(n = 42)

The final statement relate to the actual level of trade off that the participants are willing to make in favour of a greener package even if this means less sales for the organisation. However, the participants will rather go for higher sales rather than for an environmentally sound package if such a situation arises (mean = 3.14).

In addition, the following issues about packaging were raised:

- The use of paper bags – more harm can be caused to the environment in the long run;
- The Mauritian consumer must carry his own bag when shopping in supermarket; just the way things were before the advent of heavy industrialization in Mauritius;
- By increasing the micron used in plastic bag, the new initiative of the government, can be more harmful in the long run in terms of more pollution; and
- There is a need to have a sensitisation campaign on the part of the producers so as to instigate the consumers to read the information on the package.

5.4.1.3 PRODUCTS & LABELING

In this part, the respondents were presented with the following information in Figure 5.6:

How do we define *natural* ? By *natural* we mean that the product contains no artificial preservatives, artificial dyes, or artificial sweeteners (like saccharin) and is created with minimally processed ingredients originally sourced in nature. On each box we list our ingredients, their purpose and source. We believe you have a right to know. Ⓤ

Active Ingredient	**Purpose**	**Source**
Sodium monofluorophosphate	Decay prevention	Fluorspar (calcium fluoride), an ore
Ingredient		
Calcium carbonate	Mild abrasive	Purified calcium from the earth
Glycerin	Moistener	By-product of vegetable oil soap (Kosher)
Water	Consistency	Branch Brook
Sodium lauryl sulfate	Disperse the calcium	Derived from coconut oil
Carrageenan	Thickener	Seaweed
Cinnamon & peppermint oils with other natural flavors	Flavor	Cinnamon & peppermint plants

NO SACCHARIN * NO ARTIFICIAL SWEETENERS OR PRESERVATIVES * NO ARTIFICIAL COLOR OR FLAVOR
NO ANIMAL INGREDIENTS

Figure 5.6: The Ingredient Statement

This figure is the "ingredient statement" of the Tom's of Maine toothpaste. Regis Park (1997), Assistant Manager of communications argue on the main reason for companies to provide such detailed information:

> "We share more up front information with consumers than anyone else. We assume they are intelligent and discriminating and that they want to make informed choices".

For the participant of the focus group discussions, this statement was about:

	What is the information in the ingredient statement about?	% of Participants
1	Ingredients present in a product	43.5
2	Toothpaste	21.7
3	Manufacturer's responsibility to communicate information to consumers	8.7
4	Proof of quality	4.4
5	Advertisement	4.4
6	A fizzy soft drink	4.4
7	Natural product	4.4
8	Total	100.0

Table 5.9: What is information in the ingredient statement about?

(n=23)

The most obvious answer possible, "ingredients present in a product" has been voiced out by 43.5% of those who have attempted this question, 21.7% of the participants provided the correct answer in that the ingredient statement is that of a "toothpaste". In addition what was also interesting to note was that 8.7% said that this is a way for the manufacturer of the product concerned to express their responsibility to communicate information to its consumers. The same opinion argued by same wavelength by Regis Park of Tom's of Maine.

Moreover, the participants were asked to express their opinion whether the contents of the figure concerned were "too much", "enough" or, "not enough" in term of information to consumers. The responses were as follows:

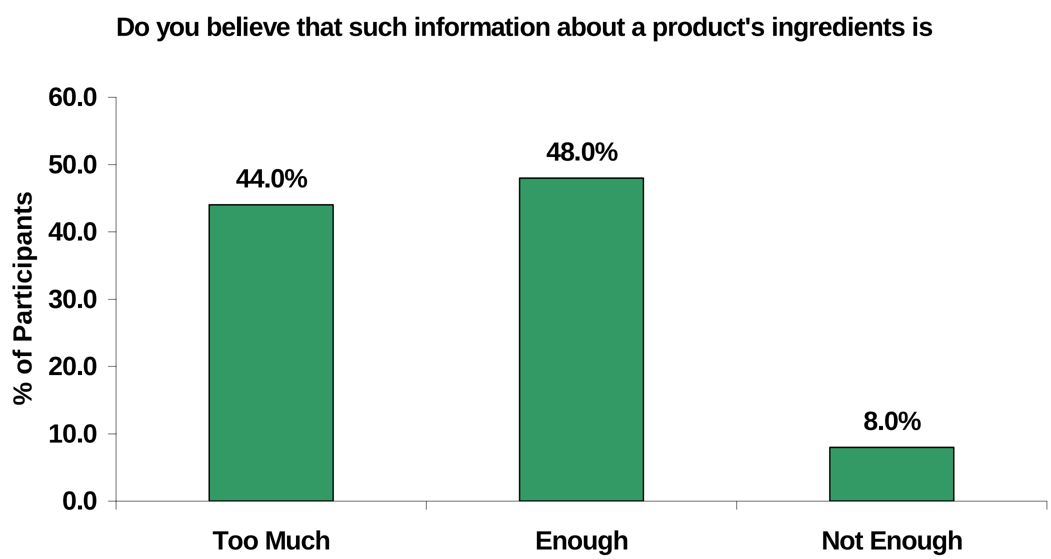


Figure 5.7: Opinion about the information provided in the ingredient statement

(n=50)

As it can be observed in Figure 5.7 above, 48.0% of the participants believed that the information was "enough". However 44.0% were of the opinion that the information was "too much". In addition the following issues were raised:

- Customers would get confused if given so much of information;
- Sign and symbols can be developed so as to ensure that all customers understand the right message in the right way.

In addition, the participants were asked to comment on the Tom's of Maine ingredient statement figure. The following findings emerged:

	Why should consumers be given such information?	% of Participants
1	Because of consumers' health problem (allergies, diabetes)	18.8
2	Consumers have the right to information (aware of what they are consuming)	18.8
3	For consumers to evaluate the product (help in purchase decision)	15.6
4	Facilitate choice of consumers between products by providing information	12.5
5	To be credible with customers	9.4
6	To guide them in their purchase by providing maximum information	6.3
7	Create awareness among the consumers	6.3
8	Not important	3.1
9	Religious inclinations	3.1
10	Source of differentiation from competitors	3.1
11	Information should be relative to the nature of the product	3.1
	Total	100.0

Table 5.10: Why should consumers be given such information?

(n= 32)

Six out of the eleven reasons, as highlighted in Table 5.10 above, relate to the information needs of the consumers.

5.4.2 PART II: PRICING

The pricing element of the green marketing mix is a very important one as this is the only element, which brings in revenue to the organisation. In the case of conventional products, their pricing strategies have to be redefined as the product "grows" along its life cycle. In this part, the participants were requested to indicate the likely price for a green product in different stages of its life cycle, that is, "introduction" (low sales), "growth" (low to moderate sales), "maturity" (moderate to high sales) and "decline"(low to declining sales). They were asked to rate the price for these stages along a five-point scale where 1 = low price and 5 = high price. The mean score of the responses is representing in a line chart in Figure 5.7 below.

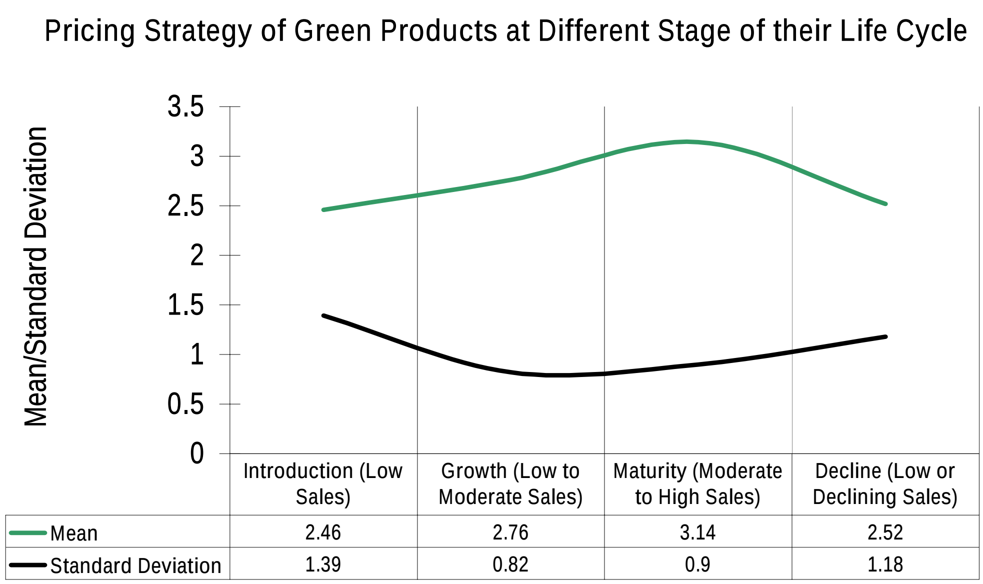


Figure 5.8: Pricing strategy of green products at different stage of their life cycle.

(n=50)

The participants have responded to this pricing question with the most logical answer possible in relation to increasing and declining sales, that is a price low price to start with, then increasing the price with growth in sales and then finally lowering the price with declining sales.

However, the following issues were also raised concerning pricing:

- The buying power of Mauritians is low compared to developed countries. Green products are generally more expensive and the Mauritian is not yet ready to spend on these products;
- Mauritians are price driven and pricing strategy can even be to the detriment of the environment; and
- In Mauritius, the high income earners are not the ones who are more pro environment. It is often seen that they are the real polluters; throwing waste papers from their cars without being bothered about the damage of pollution to the environment.

5.4.3 PART III: GREEN PROMOTION

This part focused on the promotion of green products vis-à-vis conventional products. To this end, the participants were asked to rate their degree of agreement with four statement along a five-point scale where 1 = "Disagree Strongly" and 5 = "Agree Strongly".

	Statements related to Green Promotion	Mean Scores	Standard Deviation
1	Actively undertaken.	4.52	0.58
2	Be allocated a higher budget than conventional or non-green products.	4.10	0.84
3	Primarily targeted at end uses.	3.78	0.95
4	Primarily targeted at distribution channels/ intermediaries.	3.54	1.05

Table 5.11: Green Promotion

(n=50)

In respect of green promotion, the participants argue that promotion must be "actively undertaken" (mean = 4.52) and should be "allocated a higher budget than conventional products" (mean = 4.10). However, concerning the target for the green promotion in respect of end users or intermediaries, they "neither agree nor disagree". From this it is infered that in order to promote green products, both a pull and a push strategy will have to be adopted by potential green product manufacturers in Mauritius.

In addition given the existence of various communications tools to transmit a message, the participants were asked their opinion about the most effective communication tool to pass a green message.

Along a five-point scale where 1 = “not effective at all” and 5 = “very effective”, the participants have expressed their opinion about the effectiveness of each promotion tool as follows:

	Promotional Tools for Green Communication	Mean Score	Standard Deviation
1	Publicity and Public Relations	4.08	0.92
2	Mass Advertising	3.90	1.02
3	Sales Promotion	3.70	1.07
4	Personal Selling	3.24	1.08
5	Direct Mail	2.78	1.09
6	Internet Advertising	2.46	1.11

Table 5.12: Promotional Tools for Green Communication

(n=50)

“Publicity and Public Relations” has been rated as the most effective means for promoting green products with a mean of 4.08. The second most effectively rated tool was mass advertising (mean = 3.90). The fact that these two tools have been rated as first and second indirectly confirm that there is need for mass education of the Mauritian public towards green marketing practices. Also, concerning communication of green products, the existing literature has revealed that there are many controversies related to the use of green advertising as a communication tool. In this respect, the participants were asked if they practice green advertising in their respective organisations. The results were as follows:

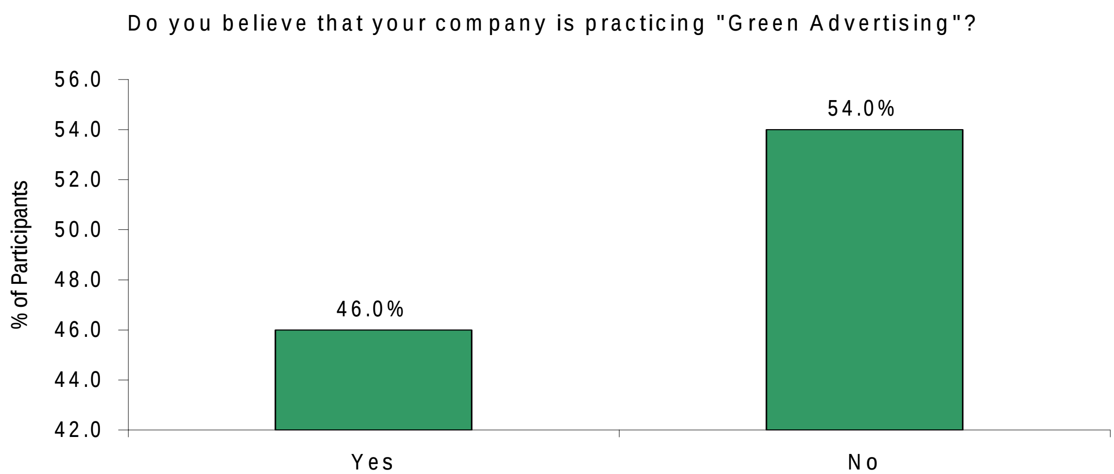


Figure 5.9: Do you believe that your company is practicing green advertising?

(n=50)

46% of the participants argued that their companies engaged in green advertising. Also two sets of statements were placed before the participants to whether they have heard of and used three common environmental claims which are “general claims – e.g safe pesticides”, “ozone-related claims – e.g ozone-friendly” and “recyclability and recycled content claims”. The results are as in Figure 5.9 and 5.10 respectively:

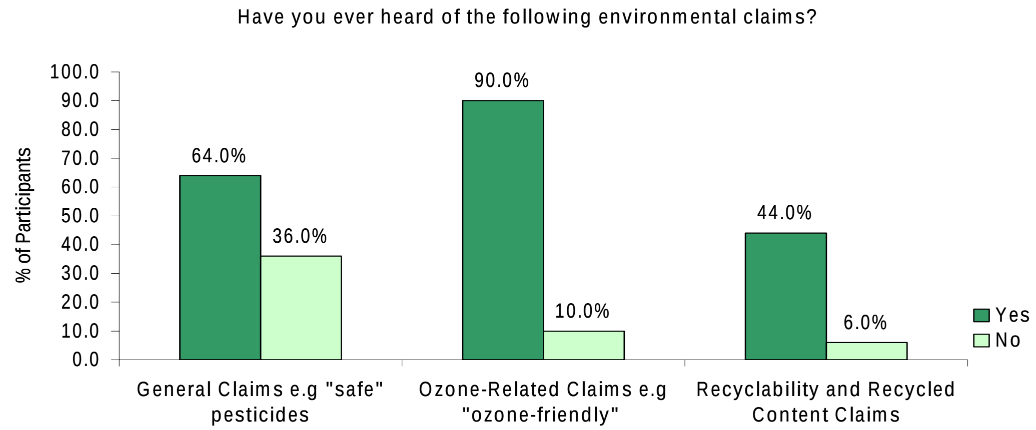


Figure 5.10: Have you ever heard of the following environmental claims?

(n=50)

The most popular environmental claim is that the participants have heard of relate to "Ozone-Related" ones with 90% of participants mentioning "yes" as the answer.

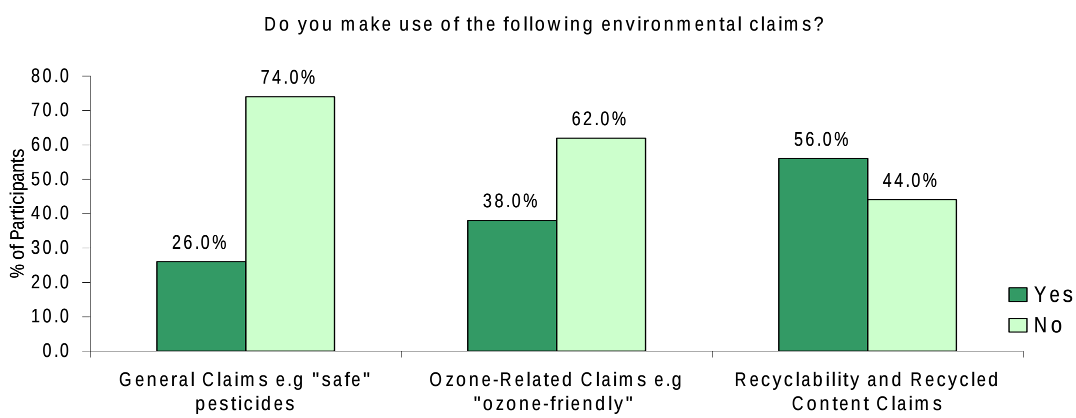


Figure 5.11: Do you make use of the following environmental claims?

(n=50)

The mostly used claim is the "recyclability and recycled content claims" on with 56% of the participants mentioning, "yes".

Also in relation to claims and the confusions related to environmental norms, a five-point scale, where 1 = “Disagree Strongly” and 5 = “Agree Strongly”, has been used to know the level of agreement of participants in respect to four pertinent issues described below. The results, expressed in mean scores, are as follows:

	Statements related to environmental claims	Mean Scores	Standard Deviation
1	Consumers do not believe in the environmentally related claims.	2.90	0.89
2	Consumer confusion about claims may prevent manufacturers who make genuine improvements in their products from reaping the rewards of their efforts	3.42	0.86
3	Environmental claims expose marketers to unreasonable risks of being entailed in legal matters.	2.96	0.90
4	It is too expensive to bring brands sold internationally into compliance with local regulations.	3.18	1.0

Table 5.13: Environmental Claims Related Issues

(n=50)

Concerning environmental claims, one statement namely, “consumer confusion about claims may prevent manufacturers who make genuine improvements in their products from reaping the rewards of their efforts” obtained the highest mean score (mean = 3.42). This depicts increasing urge for consumer education in Mauritius so that in the long run Mauritian manufacturers can practice green marketing orientation strategies.

5.4.4 PART IV: GREEN DISTRIBUTION

In respect to the distribution or the place element of the 4p's, four statements were set so and rated on a five-point scale where 1 = "disagree strongly" and 5 = "agree strongly".

	Statements Related to Distribution	Mean Scores	Standard Deviation
1	Distribution outlets generally influence the availability of new green products to consumers.	4.0	0.73
2	Channel acceptance of new green products is the key to securing required distribution for these products.	3.98	0.62
3	Good dealer/retailer margins are important in securing required distribution for new green products.	3.90	0.68
4	Perceived consumer demand is important in achieving required distribution for new green products.	3.92	0.75

Table 5.14: Statements Related to Distribution

(n=50)

The first three statements were related to the use of a push marketing strategy by the potential manufacturers of green products. In other words green products have to be pushed down the distribution channel for final consumption as all the three statements have scored nearly an "agree" rating of mean value of 4.0, 3.98 and 3.90 respectively. However, the fourth statement, related to a pull marketing strategy, has also scored this same rating. In other words, the findings confirm that both a pull and a push strategy have to be used to distribute green products in Mauritius.

5.5 SECTION 5 – THE MAURITIAN CONSUMER

Section 5 of the Focus Group discussions deals with the opinion that the participants have about the Mauritian consumer in respect of their readiness to accept green products, their compliance to read labels prior to purchase, their willingness to pay more for green products, their eagerness to dispose of their waste in an environmentally friendly manner and their concern for the environment when effecting purchases. A five-point scale has been used to rate these issues where 1 = “disagree strongly” and 5 = “agree strongly”.

		Mean Scores	Standard Deviation
1	Mauritian consumers are not ready to engage into Green Marketing.	3.24	1.06
2	Mauritian consumers do not read labels on products before their purchase decision.	3.36	1.06
3	Mauritian consumers will not accept to pay more for environmental friendly products.	3.62	1.10
4	Mauritian consumers do not dispose of their waste in an environmentally friendly manner.	4.16	0.77
5	Mauritian consumers do not take the environment as a factor when purchasing.	3.90	0.93

Table 5.15: The Mauritian Consumer

(n=50)

For the participants, the Mauritian consumers did not consider the environment as a predicting factor when purchasing products (mean = 3.90). These consumers will not also accept a higher price for green products (mean = 3.62) and do not usually read labels for their purchase decision (mean = 3.36). The Mauritian consumer definitely do not dispose of their waste in an environmentally manner (mean = 4.16). Then, according to the participants, the Mauritian consumer is not ready to engage in green marketing (mean = 3.24).

In addition to the above statements, the participants were asked to suggest means to increase the awareness of the Mauritian consumer towards green. The results revealed the following:

	How to increase the awareness of the Mauritian consumer towards green.	% of Participants
1	Educating consumers (from early childhood so that they turn into "green adults")	40.0
2	Advertising campaigns (informative through the media)	34.0
3	Government support (Legislation)	10.0
4	Invest in infrastructure (Recycling plants)	6.0
5	Setting up national award for green organisation	4.0
6	Provide incentive to use green products	4.0
7	Show consequences of not going green	2.0
	Total	100.0

Table 5.16: How to increase the awareness of the Mauritian consumer towards green

(n=50)

The most popular suggestion was the impending need of educating the Mauritian population (40%). In addition the participants have strongly recommended that education must be more targeted to children so that they turn into “green” adults.

In addition for the welfare of the Mauritian Consumer, the following issues were raised:

- The Ministry of Environment and the Ministry of Quality of Health should be one common institution with common policies, goals and practices;
- There is a strong need to educate the Mauritian population about the environment;
- Education should be made right from the cradle, that is and kindergartens in schools, educate the children so that educated children on environmental claims can in turn educate and sensitise their parents;
- Sensitisation should be done at a national level, where all sectors must join hands together so as to change the present state of things;
- Need to sensitise the population on a continuous basis and not on an ad hoc basis;
- For people who cannot read, the use of pictures, signs signals, symbols (use of more illustrative methods) can be devised;
- Promoting green products is on the on hand the responsibility of both the industry and the government and on the other hand it is of concern for the consumers who have the bad habit of disposing of the packaging in an irresponsible way, to expose a “ don’t care” attitude about the environment; and
- The consumer associations in Mauritius are too passive about green marketing practice and hence they should initiate more rigourous actions towards the implementation of green marketing strategies.

	Mean Score	Standard Deviation
To what extent do you think that the production of Genetically Modified Products should be encouraged in Mauritius?	2.64	1.29

Table 5.17: Genetically Modified Products

(n = 50)

For Genetically Modified Products (GMP), the participants expressed the wish not to encourage their production in Mauritius (mean = 2.64).

Other issues raised on GMPs are:

- GMPs are not necessarily greener products, they can cause health problems in the long run; and
- Mauritius doesn't consist of a big population so as to produce GMP for the local market.

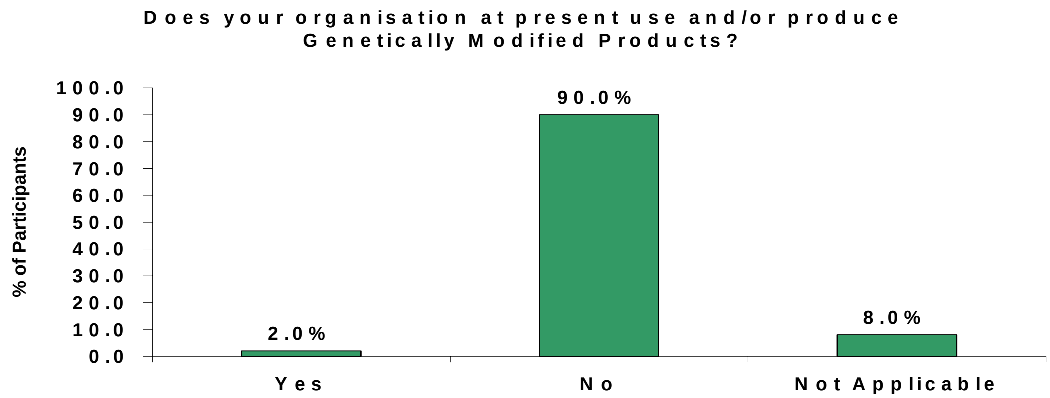


Figure 5.12: Use/Production of GMP

(n=50)

90% of the participants are not presently using and/or producing GMP in their production process due to the following reasons:

	Reasons for not using/producing GMP	% of Participants
1	Obligation towards consumers	50.0
2	Too risky	30.0
3	Laws & regulations	10.0
4	Never receive such proposals from potential suppliers	10.0
	Total	100.0

Table 5.18: Reasons for not using/producing GMP

(n=10)

It was very interesting to note that 50% of those who have attempted this question do not use/produce GMP because of their obligations towards the Mauritian consumers. The other reasons are that it is “too risky” (30.0%), because of “laws and regulations” (10%) and that they never received such proposals from potential suppliers (10%).

Moreover, the participants were asked to mention what are the products/activities that are available in Mauritius and which should be reviewed so as to become more environment-friendly. The products/activities stated in Table 5.19:

	Products/activities that are available in Mauritius which should be reviewed so that they become more environment-friendly	% of Participants
1	Safe disposal of waste	29.4
2	Unrecyclable products (plastic bottles & bags)	20.6
3	Textile Industry	11.8
4	Cans of soft drinks	8.8
5	Food crop production	5.9
6	Safe packaging	5.9
7	Waste water management	5.9
8	Chemical Industry	5.9
9	Gas emission from vehicles	2.9
10	Hotel Industry	2.9
	Total	100.0

Table 5.19: Products/activities that are available in Mauritius which should be reviewed so that they become more environment-friendly

(n = 34)

According to the participants, the main activity that urgently needs to be reviewed in Mauritius and which is related to a more environment friendly future is “safe disposal of waste” (29.4%). Even the second activity is related to the disposable of wastes, namely “unrecyclable products”. Moreover, in relation to recycling, the following issues were raised:

- To set up recycling plants first and foremost, they should be viable;
- Mauritius does not have the appropriate logistics so as to put in place the mechanism towards recycling;
- There is wastage of perishable products – fruits and vegetables – in Mauritius, these are thrown away – and could instead be use to produce compost;
- Waste should be classified and collected according to their recyclability, for instance electrical disposal for paper bins;
- Waste/used oil is a big problem in Mauritius and there is no long term solution for recycling;
- Recycled papers are very expensive, if these were mass produced then it would have cost much lower;
- In Madagascar, the recycling of paper has taken a very “artisanal” perspective, why not in Mauritius?
- In the Reunion island, recycled plastic represent the second largest export;
- The use of landfills cannot be passed. Collection of waste should be properly organised;
- Setting up of Recycling Centres on the parking slots of major supermarkets of Mauritius such as Jumbo Score Super U and Shoprite.

Furthermore, on the overall, the participants were asked how they foresee green consumption evolving in Mauritius over the next ten years. The outcome of this question is as follows:

	How do you foresee Green Consumption evolving in Mauritius in the next 10 years	% of Participants
1	People will become more aware of importance of going green	23.3
2	More companies will go green (environment friendly) as response to consumer demand (world market demand)	16.7
3	Level of education & cultural heritage of the people might be quite important	13.3
4	Only a minority will be conscious about green consumption (Insignificant percentage)	13.3
5	Depend on the stance taken by the government concerning green products (properly channelled or not)	13.3
6	Waves of organic products will reach the island	10.0
7	Successful in the future	6.7
8	Needs more studies about the topic of green marketing	3.3
	Total	100.0

Table 5.20: How do you foresee Green Consumption evolving in Mauritius in the next 10 years

(n=30)

On the overall, the participants believe that in the next ten years, people will become more aware of importance of going green (23.3%). They also believe that more companies will go green (16.7%) in the future. However, 13% believe that only an insignificant percentage of the Mauritian will go green and 13% believe that in order to go green, the government must play an important role. Activities by the Ministry of Environment denote that the Government is conscious about the environmental problems in Mauritius. However, much action is taken only on a one off basis.

Moreover, concerning the role of the government, the following issues have been raised:

- Government should invest more on recycling plant, waste management, and sensitise the population in general about environmental problems and why the need to cater for the welfare of our environment;
- Severe sanctions must be taken by Government and the legislation on the environment exist only on paper, Government should take the initiative and apply the law;
- Mauritius should abide by the international laws and to the treaties which has been signed by Government;
- Strategies devised by Municipal Councils of Mauritius – the green bins. One note of concern that has emerged during the study is that a particular Municipal Council in Mauritius has insisted on the use of virgin materials for plastic bins instead of recycled ones in a tender in the year 2003.
- The government should not act as an obstacle in the development of green products. Investment in environmental friendly activities should be encouraged and facilitated;
- The government should make green products tax free so as to promote them; and
- The government should protect the local manufacturers from international and multinational companies with their low cost products. Dumping should be prohibited.

5.6 CONCLUSION

The discussions during the focus groups and the analysis of the responses given by the participants have revealed that company executives are concerned about the environment. However, in order to fully integrate green marketing practices in their daily activities, these executives have insisted on three main issues, namely, the government must be more proactive, the importance of educating the Mauritian population by starting with the young ones and that reforms must be on a continuous basis. Hence, one possible solution could be the introduction of a national reform relating to the implementation of environmental clubs in all the schools around the island.

6.0 INTRODUCTION

The present chapter discusses the methodology used to investigate upon the nature and concept of Green Marketing Practices among Mauritian consumers. It gives a brief on the framework for the study used as a guide in analyzing and collecting data on green marketing behaviour.

The research process was broken down into the basic stages of marketing research before answering the research question:

1. Formulate the problem;
2. Determine research design;
3. Determine data collection method;
4. Design data collection forms;
5. Design sample and collect data;
6. Analyze and interpret the data; and
7. Prepare the research report.

6.1 FORMULATE THE RESEARCH PROBLEM

There is considerable evidence that most markets in developing economies like Mauritius have been affected by green consumer behaviour, that means by behaviour that reflects concern about the effects of manufacturing and consumption on the natural environment. Whether there has been a reversal over the years regarding the occurrence of green consumer behaviour in Mauritius is hotly debated. Green product options have stayed on the shelves of many retailers, which indicated that green consumers on Mauritius remain at least a niche market that is worth catering for. But in general, the Mauritian consumer can still be considered a "sleeping giant".

6.1.1 OBJECTIVES OF THE STUDY

The purpose of the study is to assess the green purchasing behaviour of consumers in Mauritius and to construct a psychographic profile of the green consumer in Mauritius in terms of variables directly related to purchase behaviour such as price consciousness and general care in shopping, interest in new products and brand loyalty towards advertising and media interests and preferences.

Green consumer behaviour in Mauritius raises a chest of intriguing questions that cover a wide range of issues in relation to the green consumer. In the present study the objectives for the consumers will be as it follows overleaf:

1. What drives the green consumer? What are the values, motives, desires and needs behind green consumer behaviour?

2. Does green consumer behaviour in Mauritius carry on ethical religious and/or spiritual dimension?

4. What knowledge and understanding of environmental issues are held by green consumers? How does learning occur regarding green consumption?

5. Does the Mauritian green consumer have a distinctive socio-demographic consumer behaviour related to age, gender, and income?

6. What impacts do media reports/advertising and pressure group campaigns have on 'public opinion' and on the occurrence of green consumer behaviour?

6.2 DETERMINE THE RESEARCH DESIGN

The research design is the blueprint that helps the researcher in planning for the proper execution of the research.

6.2.1 EXPLORATORY RESEARCH

In the early stages of the research, there was a lack of sufficient understanding of the problem of Green marketing in Mauritius. An exploratory study was conducted to clarify concepts Green Marketing in Mauritius. In sum the exploratory study was used for the following purposes:

- Formulating the problem green marketing in Mauritius for more precise investigation
- Establishing priorities for further research on green marketing in Mauritius.
- Clarifying concepts on the nature and scope of green marketing in Mauritius.

6.2.2 LITERATURE REVIEW AND FOCUS GROUPS

The existing literature on green marketing searched and relevant empirical evidence complied. In addition, five focus groups with fifty participants were conducted. The main aim behind the focus group discussions was to gain an insight on the perception of managers in various sectors of Mauritius in respect to how green marketing practice is evolving in Mauritius.

The discussions during the focus groups and the analysis of the responses given by the participants have revealed that company executives are concerned about the environment. However, in order to fully integrate green marketing practices in their daily activities, these executives have insisted on three main issues, namely, the government must be more proactive, the importance of educating the Mauritian population by starting with the young ones and that reforms must be on a continuous basis.

Both the literature review and the focus groups have given greater insights in respect of how to investigate the greening of the Mauritian consumers. Consequently, the researcher was equipped to begin the survey of the Mauritian population.

6.3 DATA COLLECTION METHODS AND DATA COLLECTION FORMS

The following framework has been used to design the questionnaire for the survey of the population at large in respect of "A Study of Green Consumer Behaviour in Mauritius and Implications for Marketing Strategy":

1. Review the existing literature;
2. Prepare a draft questionnaire;
3. Pilot the questionnaire; and
4. Finalise the questionnaire.

6.3.1 REVIEW THE EXISTING LITERATURE

Articles, web information and databases related to green marketing have been used to prepare this survey. The work of following main authors, J. Ottman (1998), Shrum *et al* (1995), Roper Starch World Wide, Green Gauge (1996) Antil (1978), Berger and Corbin (1992) Kinnear *et al*, (1974) Roberts (1995) (1996b) Roberts and Bacon (1997) Webster (1975), Weiner and Doescher (1991) and Straughan *et al* (1999), have been of much help to draft the questionnaire.

6.3.2 PREPARE A DRAFT QUESTIONNAIRE

A draft questionnaire (refer to Appendix C) was prepared with the information from the literature review and the focus group results.

The questionnaire consists of six sections:

Section A: Demographic profile

Section B: Attitude

Section C: General environment related questions

Section D: Green Products

Section E: Other Statements

Section F: Products

6.3.2.1 Section A: Demographic profile

This section relates to the demographic of the potential respondents and represents the independent variables of the questionnaire. The section consists of eight questions in respect of occupational group, gender, age, location, education, household income, ethnic group and family size. Note that for occupational group, the International Standard Classification of Occupations (ISCO-88) has been used (Refer to Appendix D).

6.3.2.2 Section B: Attitude

The purpose of Section B is to determine the extent to which particular consumer attitudes and beliefs are related to interest in purchasing environmentally safe products. The attitude and belief statements used to calculate the criterion variables (green buying) and the predictor variables (consumer attitudes and beliefs) comes from the Attitudes, Interests, and

Opinions (AIO) portion of the Life Style Study that has been used by Shrum *et al* (1995). To generate a list of these relevant attitude items, these authors read through the AIO section of the Life Style Study and noted items that would be important in developing a profile of the green consumer. Particular emphasis was placed on issues related to the buying process (e.g., impulse buying, price consciousness, brand loyalty) and the communication process (e.g., attitudes toward advertising, opinion leadership, opinions about and use of particular media). That procedure yielded 24 items, of which, 22 is used in this study.

The 22 statements were used as possible predictors of interest in buying environmentally safe products. The statements pertain to topics that are important in understanding consumer shopping behaviors such as degree of opinion leadership, buyer behavior characteristics such as price consciousness and financial care in shopping, brand interest and loyalty, and interest in new products. Items related to beliefs about advertising were included to address previous findings suggesting an anti-advertising bias on the part of green consumers. Finally, items that measured consumer attitudes toward particular media (magazines and television) were incorporated to address message delivery issues.

Each item will be measured on a 5-point Likert-type scale anchored by 1 = “strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement).

6.3.2.3 Section C: General environment related questions

This section pertains to general environmental issues. Four questions (C1 – C4) are set in this respect.

Question C1 investigated upon the future position of the environment in Mauritius. A 5-point Likert-type scale anchored by 1 = “better" and 5 = "worst" has been used for this question.

In Question C2 a list of 18 environmental concerns that was used by the Roper Starch Worldwide, Green Gauge, 1996 has been adopted. The 18 statements were measured on a 5- point Likert-type scale anchored by 1 = “not serious at all” and 5 = “very serious” (higher numbers reflect more agreement).

Question C3 investigates how far six main stakeholders are performing on public environment expectations. The stakeholders will be measured on a 5-point Likert-type scale anchored by 1 = “strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement). An additional option is given for any added stakeholder as “Others”.

Roper Starch World Wide, Green Gauge (1996) found that "having a company or its products endorsed by an environmental cause or organization," was among the most believable types of corporate environmental protection efforts. Question C4 provides four statements in respect of the believability of environmental cause related marketing. Each item is measured on a 5-point Likert-type scale anchored by 1 = “very believable" and 5 = "don’t know".

6.3.2.4 Section D: Green Products

This section contains 6 (D1 – D6) questions relating to environmentally friendly products.

Question D1 measures the awareness about "green products" along a 5-point Liket scale where 1 = "never heard of" and 5 = "a lot". This question was also used as a filter question having as branch Question D2 relating to the medium where the respondents have heard about "green" products.

Question D3 measures the extent to which the potential respondents will have a preference concerning green products. The scale for measurement is 1 = "whenever there is a choice" and 5 = "unsure".

Question D4 is a filter question pertaining to the use of organic products. A list of 8 generic products is provided and the potential respondents will be asked if they use organic and/or non-organic versions of the products. Any use of organic products will take the respondents through question D5 and D6 or if organic products are not used, to Section E.

Question D5 provides a list of 7 statements about the characteristics of organic products. These products will to be measured along a 5-point Likert scale anchored by 1 = "strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement).

Question D6 provides a list of 12 statements pertaining to the reasons consumers are reluctant to buy organic products. Items will be measured along a 5-point Likert scale anchored by 1 = "strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement).

6.3.2.5 Section E: Other Statements

This section contains 4 questions (E1 – E4) relating to ecologically conscious consumer behaviour, perceived consumer effectiveness items, environmental concerned items and liberalism items.

Question E1 - 41 statements represent the ecologically conscious consumers items. These items will be measured along a 5-point Likert scale anchored by 1 = "strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement).

Question E2 - 5 statements represent the perceived consumer effectiveness items. These items will be measured along a 5-point Likert scale anchored by 1 = "strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement).

Question E3 - 12 statements represent the environmental concern items. These items will be measured along a 5-point Likert scale anchored by 1 = "strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement).

Question E4 - 6 statements represent the perceived liberalism items. These items will be measured along a 5-point Likert scale anchored by 1 = "strongly disagree" and 5 = "strongly agree" (higher numbers reflect more agreement).

6.3.2.6 Section F: Products

Section F comprises three questions (F1 – F3). **Question F1** aims at knowing the last time when the potential respondent has consumed the products concerned and **Question F2** judge the extent to which the same respondents are likely to buy green versions of the same generic products.

Question F3 is a general closing question probing any other comment that the respondent might have concerning green marketing in Mauritius.

6.3.3 PILOT THE QUESTIONNAIRE

The pilot test of the draft questionnaire was scheduled between 23rd and 24th October 2003. 30 questionnaires were given to a team of 10 interviewers. These interviewers were trained prior to the pilot test on matters relating to the study concerned. 21 duly filled questionnaires were returned. It was concluded that the feedback obtained from these 21 questionnaires were sufficient to finalise the questionnaire. The outcome of the pilot test is follows.

6.3.3.1 TIME

The average time to fill a questionnaire is 45 minutes.

6.3.3.2 CHANGES TO QUESTIONS

Some minor changes were brought to the draft questionnaire relating to matter such as comprehension and relevancy of the questions. Modifications effected were in the following areas:

- Section A

No changes were made to Section A.

- Section B

Item 20 in Question B1 ("Advertising insults my intelligence") was repositioned as the last item in this question because of its negative connotation. The pilot interviewers stressed that it was better to keep the respondents in the same frame of mind and to put negative statements towards the closing parts.

Other questions and statements were accepted.

- Section C

Item 17 in Question C2 ("Biotechnology") was changed to "Genetically Modified Products" for better comprehension. In addition, regarding the same item, a definition of the term "Genetically Modified Products" has been provided; as products that are produced using Genetic Engineering which is a set of laboratory techniques for isolating genetic material from organisms, cutting and rejoining it to make new combinations, multiplying copies of the recombined genetic and transferring it into organisms, thereby bypassing the process of reproduction.

- Section D

For comprehension, the term "Environment Friendly Products" was inserted along "Green Products".

Regarding Question D2, it was deemed to be important to specify that the answers were not mutually exclusive (*you may tick more than one answer).*

The options Question D4 was changed from a dichotomous answer for each organic product to a scale representing different levels of consumption concerns organic and non-organic products.

From:

	Organic	Non-Organic
Generic product	☐	☐

To:

	Only organic %	%	Both Equally %	%	Only Non-Organic %
Generic product	100	75/25	50/50	25/75	100

In addition, the instruction for the interviewers in respect of this filter question (D4) was made clearer.

The word conventional was changed to non-organic in respect to item 5 in **Question D6** for comprehension.

From:

I don't think there is any taste difference between organically produced products and **conventional** ones.

To:

Organically produced products are no healthier than **non-organic** ones.

- Section E

Only 35 items out of 41 were retained in **Question E1.** The following items have been removed because other items in the question already represented them:

12. I have purchased a household appliance because it uses less electricity than other brands.
19. When I purchase products, I always make a conscious effort to buy those products that are low in pollutants.
22. I buy Kleenex made from recycled paper.
29. I do not buy household products that harm the environment.
30. I buy high efficiency light bulbs to save energy.
32. Green products are normally priced higher than non-green products. Therefore, I do not buy them.

Item 2 ("I am for a federal health insurance program covering men and women of all ages") in **Question E4** was withdrawn for irrelevance.

- Section F

In respect of Question F1, another option was added as today in respect of the last purchase time of generic products.

From:

PRODUCTS	Yesterday	Within last week	Within last month	Within last three months	Half year or more	Never purchase
Generic Product	1	2	3	4	5	6

To:

PRODUCTS	Today	Yesterday	Within last week	Within last month	Within last three months	Half year or more	Never purchase
Generic Product	1	2	3	4	5	6	7

In addition in Question F3, it was judged important to specify that the comments were in respect of green products in Mauritius.

6.3.4 FINALISE THE QUESTIONNAIRE

After modifying the initial questionnaire after the pilot tests, the final questionnaire (refer to Appendix E) was designed. Administration of the questionnaire was held between the 15th of November and 31st of December 2003.

6.4 DESIGN SAMPLE AND COLLECT DATA

The sample design ensures that what has been planned so far in the methodology is properly executed by reaching and interviewing valid respondents.

6.4.1 DETERMINING THE SAMPLE DESIGN

A sample is a segment of the population selected to represent the population as a whole (Kotler, 1997).

6.4.2 DEFINING THE POPULATION

The population of a piece of research is never constant; it is defined by the research objectives (Deacon, 1999). The population to be studied is the Mauritian adult population (defined as 16 years and over). Although, the population under 16 represents a big audience (approximately 26% - CSO), they are not included in this research.

6.4.3 SELECTION OF THE SAMPLING METHOD

Stratified Sampling has been used to represent the population in this present research. In this random sampling technique, there has been a need to gain detailed information about the population. The researcher has decided on a range of independent variables

that are likely to be important to obtain a representative for this study. Location, occupations and gender have been retained as important independent variables for the survey.

6.4.4 THE SAMPLE SIZE

How many people should de surveyed? In this study, a sample of 1000 Mauritian respondents will be interviewed in-home.

6.4.5 SPECIFY THE SAMPLING PLAN

The sampling plan involved the specification of how each of the decisions made so far were to be implemented. To stratify the population in respect of location, occupational group and gender, recent data from the Central Statistical Office has been used.

The currently employed population 12 years of age and over by geographical district, major occupational group and sex (2000) (refer to Appendix F) has been used to set the quotas. The target population for the survey is 900,498 potential respondents representing the total number of active persons in the island of Mauritius who have stated their activity status in year 2000. All these figures have been converted into percentages representing weights to calculate the final quotas (refer to Appendix G).

6.4.6 ADMINISTRATION OF THE QUESTIONNAIRE

Data collection has been conducted using in-home face-to-face interviews. A team of 27 interviewers has been recruited to conduct the interviews (refer to Appendix H) in different areas of Mauritius. The interviewers have been duly trained in data collection, editing and input. In order to ensure that the quotas were respected, each interviewer has been equipped with an interviewer kit comprising of explanations about the occupational groups, a sample questionnaire and a checklist with quotas for their specific locations (refer to Appendix I).

The data has been collected between 15 of November 2003 and 31 of December 2003. All the data have already been codified and input in an excel template.

6.5 ANALYSE AND INTERPRETE DATA

Once collected, the responses from the respondents, must be prepared and analysed to meet the objectives of the study.

6.5.1 DATA ENTRY & ANALYSIS

The answers to questions asked through the questionnaire were entered and saved using SPSS 10.05 as analytical software. The analysis had as major objective to investigate on practice of green marketing by them Mauritian customer.

Through the statistical analysis of the data which consisted of calculating the frequency, the mean, the standard deviation, and the cross tabulations, reliability coefficients, correlations, chi-square tests, analysis of variance, factor analysis and cluster analysis of the various answers received wherever it was appropriate, it was possible to develop a logical framework putting forward the main objectives concerning the questions that the project was actually trying to elucidate. It should be noted that bar and pie charts from Microsoft Excel were used to illustrate the response to the questions.

6.6 PREPARING THE RESEARCH REPORT

As a final step, a report was written, using the results from the survey as support evidence to illustrate the main findings of the research project and to interpret the information gathered as far as the practice of green marketing by Mauritian consumers and their level of ‘greenness’.

6.7 LIMITATIONS OF THE SURVEY

The study is cross-sectional in nature. While causality may in fact exist, the cross-sectional nature of the study makes it difficult to infer this from a single study. Such efforts are, however, commonly reported both in the environmental literature and the marketing literature. Also the measures used, while validated measures, were self-report measures. Supporting these self-report measures with observational or behavioral measures would strengthen the findings.

6.8 CONCLUSION

This chapter has analysed the research methodology used for the national consumer survey. The next chapter reviews the main findings.

CHAPTER Six

EMPIRICAL FINDINGS

NATIONAL SURVEY OF MAURITIAN CONSUMERS

7.0 INTRODUCTION

The empirical findings of the national survey of Mauritian consumers are reported as:

Findings 1: Socio-demographic profile of the respondents

Findings 2: Psychographics profile of the respondents

Findings 3: Environment related concerns of the respondents

Findings 4: Green products preference of the respondents

Findings 5: Organic product preference of the respondents

Findings 6: Factor dimensions of green consumers

Findings 7: Cluster analysis to segment the respondents

7.1 FINDINGS 1: SOCIO-DEMOGRAPHIC PROFILE OF THE RESPONDENTS

The socio-demographic profile of the respondents include the district weightage, occupational groupings, gender, age bracket, location, educational background, monthly household income, ethnic group and household size.

7.1.1 DISTRICT WEIGHTAGE

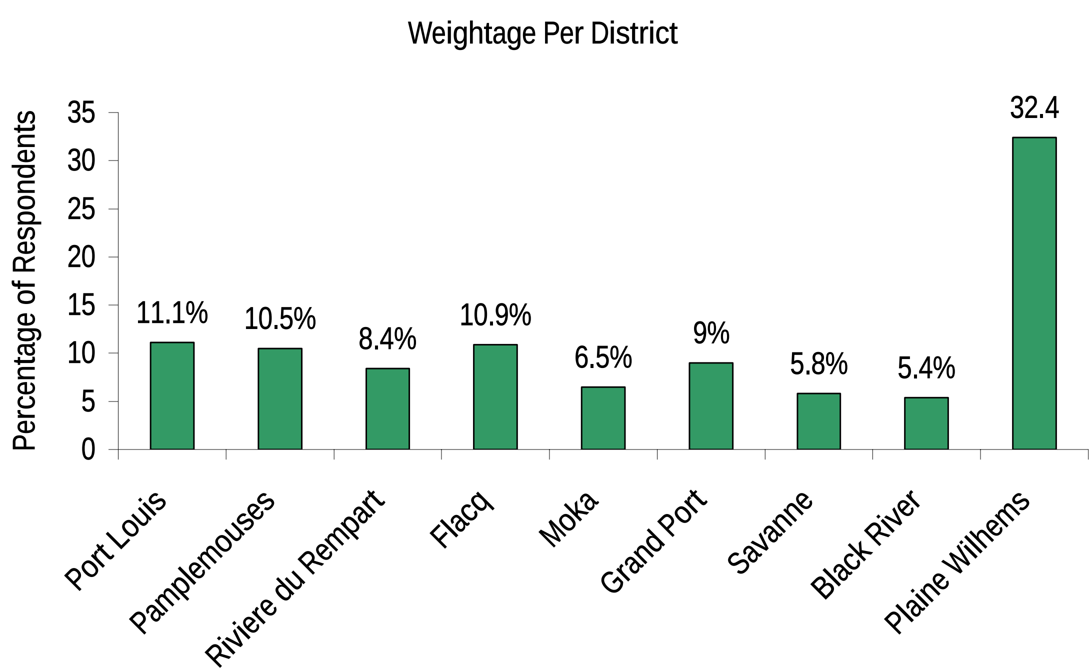


Figure 7.1: Weightage per District

(n=1000)

The district of Plaine Wilhems accounted for nearly one third of the sampled population (32.4%), followed by Port Louis (11.1%) and Flacq (10.9%). The six other districts had an average weightage of 7.6%. This sample weightage proportionally represents the true population distribution across districts.

7.1.2 OCCUPATIONAL GROUP WEIGHTAGE

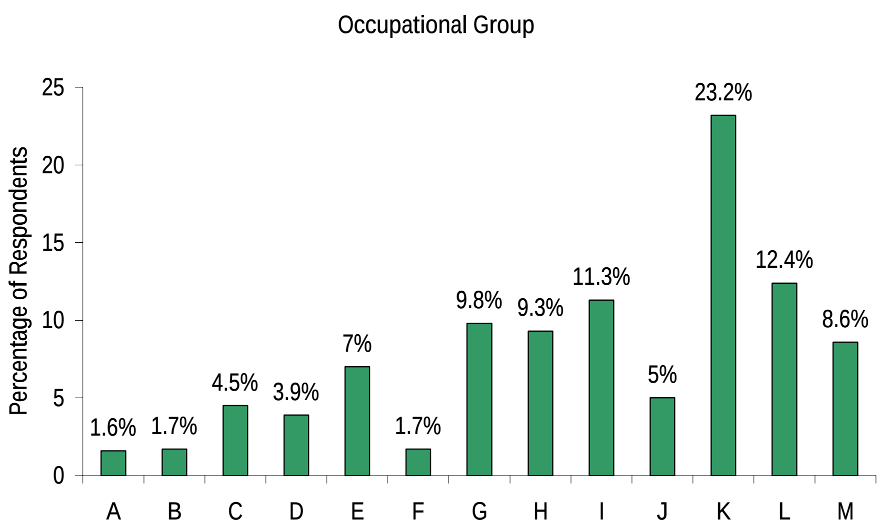


Figure 7.2: Occupational Groups

(n=1000)

Proportionally derived from the target population, the occupation groups of the sample population are presented in Figure 7.2. 23.3% respondents of the sampled population are involved in household duties, 12.5% are students and 11.5% perform elementary occupations.

Key of Occupational Groups:

Occupational Group	Code
Legislators, senior officials and managers	A
Professionals	B
Technicians and Associate professionals	C
Clerks	D
Service workers and shop sales workers	E
Skilled agricultural and fishery workers	F
Craft and related trades workers	G
Plant and machine operators and assemblers	H
Elementary occupations	I
Unemployed	J
Household Duties	K
Studies	L
Retired, disabled & others	M

Table 7.1: Key of Occupational Groups

For practical reasons, the same occupational codes presented in Table 7.1 will be used throughout this chapter to represent occupational groups.

7.1.3 GENDER DISTRIBUTION

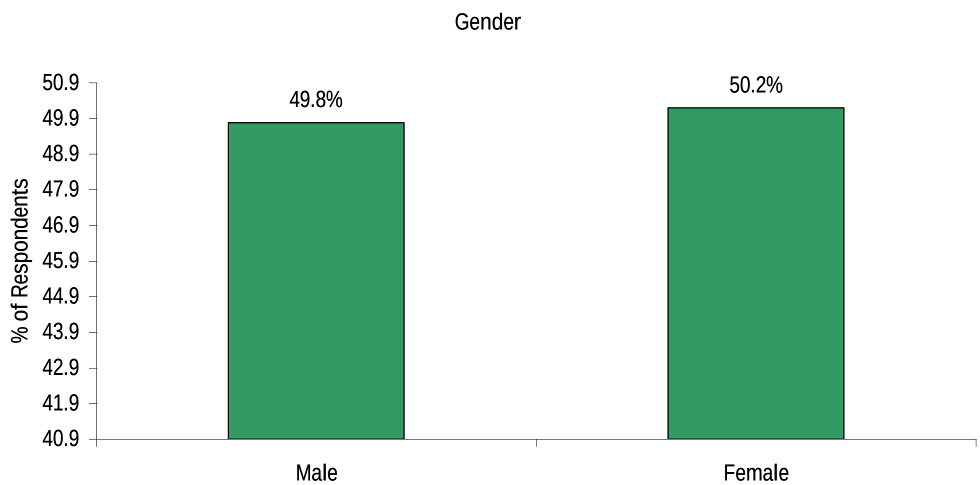


Figure 7.3: Gender

(n=1000)

The male and the female respondents of the survey represented 49.8% and 50.2% respectively. This distribution is in line with the gender distribution of the actual population in Mauritius.

7.1.4 AGE DISTRIBUTION

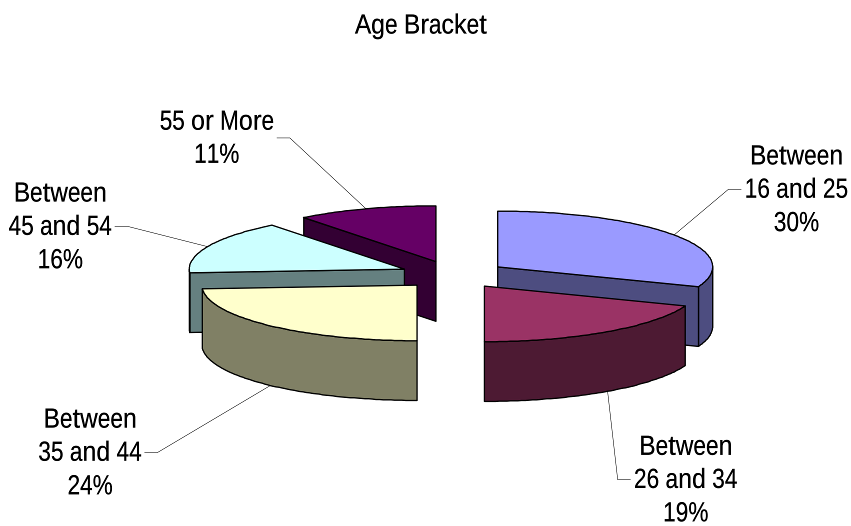


Figure 7.4: Age Bracket

(n=1000)

30.7% of the respondents were aged between 16 and 25 years, 23.8% are between 34 and 44 years and 19.4% are between 26 and 34 years. The others were aged between 45 and 55 years or more.

7.1.5 REGION DISTRIBUTION

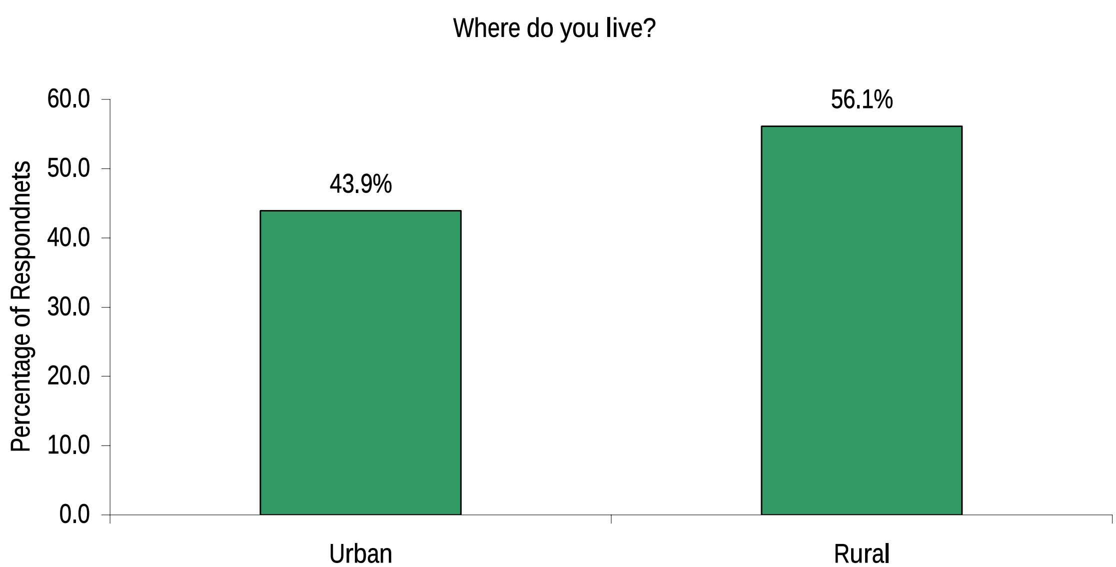


Figure 7.5: Location (Urban/Rural)

(n=1000)

56.1% of the respondents were from the rural areas as compared to 43.9% who were from the urban ones.

7.1.6 MONTHLY INCOME DISTRIBUTION

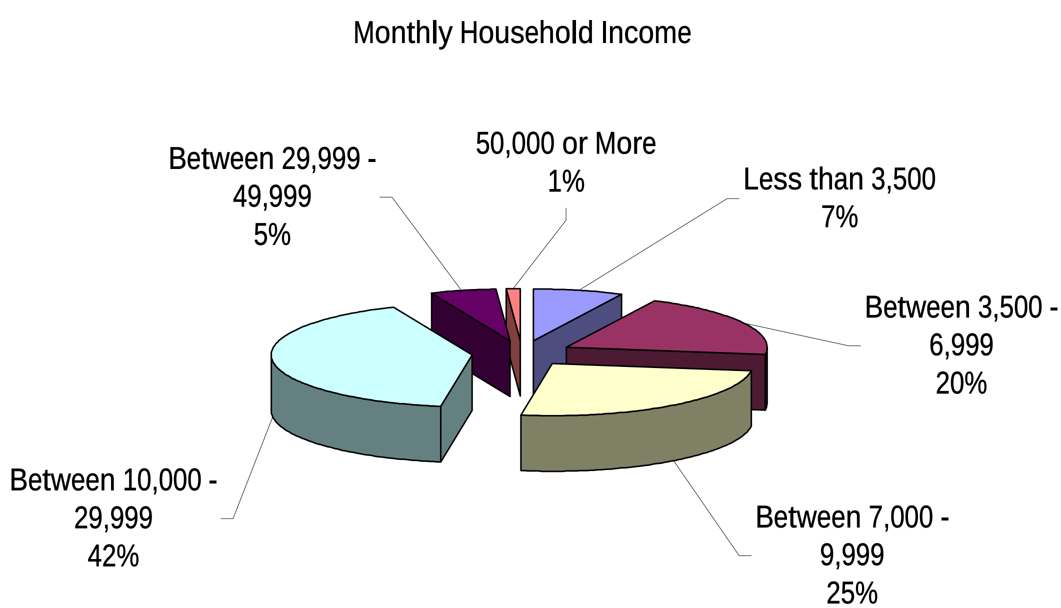


Figure 7.6: Monthly Household Income

(n=1000)

More than two-fifth (41%) of the respondents had a monthly household income which ranges between between Rs10,000 and Rs 29,999. 25.3% have as monthly household income Rs 7,000 – 9,999. Only 1.0% of the respondents have up to Rs 50,000 or more revenue as monthly household income.

7.1.7 EDUCATIONAL DISTRIBUTION

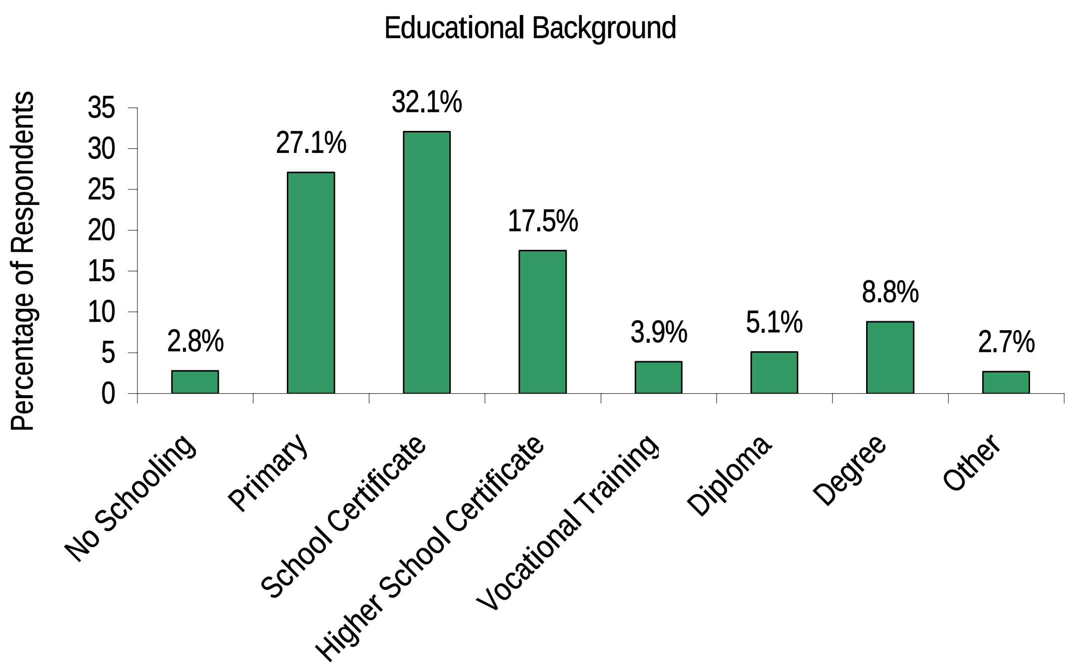


Figure 7.7: Educational Background

(n=1000)

As it can be observed in Figure 7.7, 32% of the respondents have studied up to School Certificate (Form V) followed by 27.1% who have attended 'primary schooling'. Only 2.8% had no schooling.

7.1.8 ETHNIC DISTRIBUTION

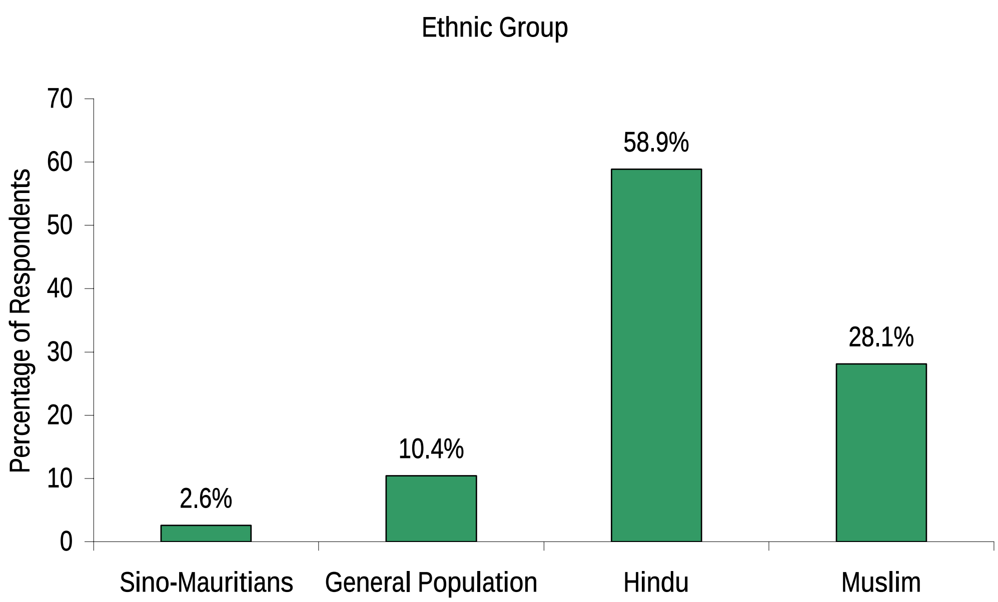


Figure 7.8: Ethnic Group

(n=1000)

More than half (58.9%) of the sampled population were of “Hindu” origin. 28.1% were of Muslim origin, followed by 10.4%, from the General Population and 2.5% from the Sino-Mauritian ethnic group. The ‘Hindu’ bias is due to the ethnic composition of the Mauritian population.

7.1.9 HOUSEHOLD SIZE COMPOSITION

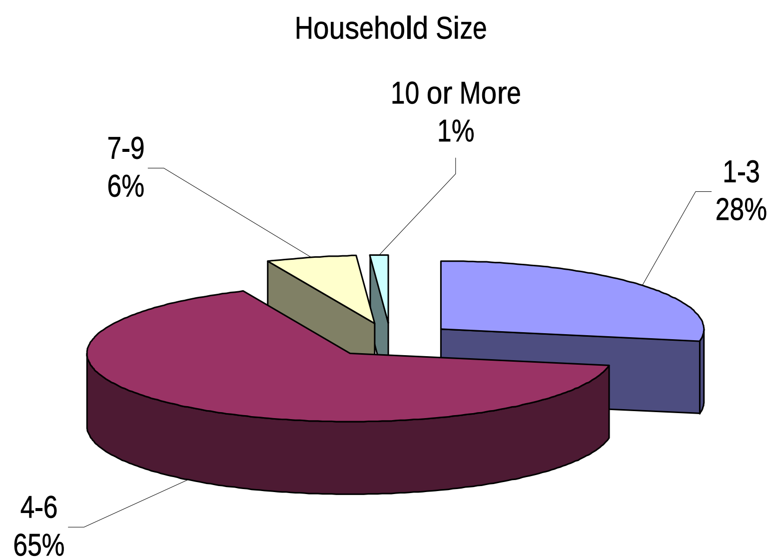


Figure 7.9: Household Size

(n=1000)

The majority (67.5%) of the Mauritian family consists of 4-6 members followed by 27.7% with 1-3 family members, 5.5% with 7-9 members and only 1.1% with 10 or more members.

7.2 FINDINGS 2: PSYCHOGRAPHIC PROFILE OF THE RESPONDENTS

7.2.1 ATTITUDE OF CONSUMERS

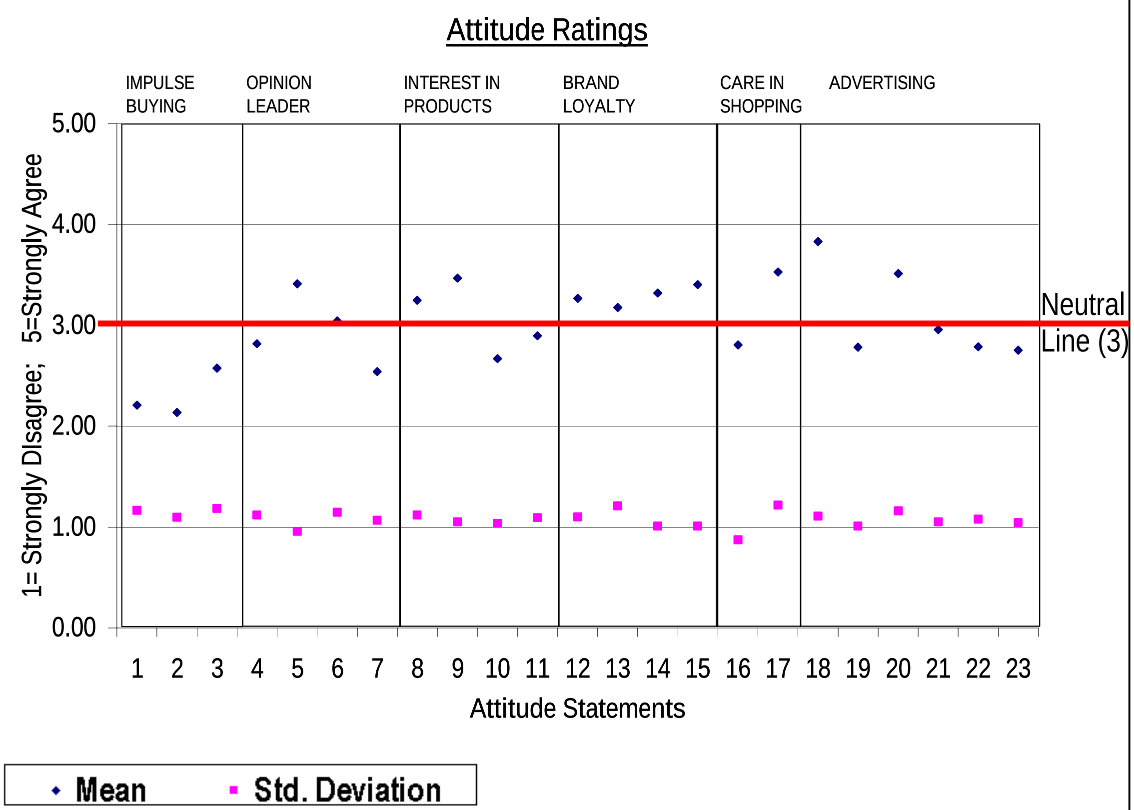


Figure 7.10: Mean Score Points of Attitude Statements

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

Figure 7.10 summarises the mean scores of 23 attitude statements that the respondents have rated. Out of the 23 statements, 12 were below the neutral line and 11 statements were above the line. In addition, what can be depicted from the diagram is that the respondents did not tend to "agree" about the "impulse buying" statements (3 statements below the neutral line), had a balanced attitude about the "opinion leader" and "interest in products" statements, were more agreeable in respect of the "brand loyalty" and "care in shopping" statements and tended to disagree about the advertising statements. Although, Figure 7.10, gives a first insight about the attitude of the respondents, future analysis of these statements would be helpful to come up with a psychographic profile of the respondents.

Out of the 23 statements, a weighted mean score has been calculated for the first 18 statements as per their respective predefined groups, which are as:

1. Impulse Buying (IB)
2. Opinion Leader (OL)
3. Interest in Products (IP)
4. Brand Loyalty (BL)
5. Care in Shopping (CS)

The reliability of the statements representing each construct has been calculated prior grouping of the statememts. Reliability refers to consistency and implies that the questionnaire should have the same effect when given to different respondents under similar conditions. In research literature, the Cronbach's alpha is often reported as an indication of reliability. According to Ghauri *et al* (1995), the Cronbach's α can be conceived as a measure of the intercorrelations between the various constructs used to measure a variable. Ghauri et al (1995) claim that the assumption is that the various indicators should correlate positively but not perfectly.

The other 5 statements pertaining to advertising have been used as separate variables as they were not meant to define the advertising construct.

7.2.1.1 IMPULSE BUYING (IB)

	IMPULSE BUYING (IB)	Mean Score	Standard Deviation
1	I pretty much spend for today and let tomorrow bring what it will.	2.21	1.16
2	I frequently buy things when I can't afford them.	2.14	1.10
3	I am an impulse buyer.	2.58	1.19
	Cronbach's alpha 0.6120		

Table 7.2: Impulse Buying Statements

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

Three "impulse buying" statements had been presented to the respondents for rating along a five point scale. While using multiple indicators, it is important to ensure the reliability of the indicators used to capture a particular construct.

The three IB statements have been subject to a reliability test to ensure their criterion validity. The Cronbach's α value for the three statements is 0.6120. This value has been regarded as a reliable cutoff for the present study. Hence, a weighted mean of the three statements follows to obtain the mean score for the Impulse Buying factor.

	Mean Score	Standard Deviation
IMPULSE BUYING (IB) FACTOR	2.31	0.86

Table 7.3: Impulse Buying Factor

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The respondents tend to disagree in respect to the IB factor (mean score = 2.31).

7.2.1.2 OPINION LEADER (OL)

	OPINION LEADER (OL)	Mean Score	Standard Deviation
4	I am influential in my neighbourhood	2.82	1.12
5	I have more self confidence than most of my friends.	3.41	0.96
6	I like to be considered a leader.	3.04	1.15
7	My opinions on things don't count very much.	2.54	1.07
	Cronbach's alpha 0.3868		

Table 7.4: Opinion Leader Statements

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The OL factor has scored a very week Cronbach alpha (0.3868). Hence the inconsistent statements had to be removed so as to reliably define the construct. Table 7.2 overleaf presents a correlation matrix of the four statements in OL.

Person Correlation Coefficient	4. I am influential in my neighbourhood	5. I have more self confidence than most of my friends.	6. I like to be considered a leader.	7. My opinions on things don't count very much.
4. I am influential in my neighbourhood		0.241**	0.235**	0.045
5. I have more self confidence than most of my friends.	0.241**		0.321**	0.028
6. I like to be considered a leader.	0.235**	0.321**		-0.42
7. My opinions on things don't count very much.	0.045	0.028	-0.42	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7.5: Correlation Matrix Opinion Leader Statements

(n=1000)

Note that to group the OL criteria, the scale of statement 7 has been reversed. However, even by reversing the scale, the correlation matrix revealed that this statement is not a valid criterion for OL since it shows a very weak correlation with the other OL statements Hence it was eliminated.

	OPINION LEADER (OL)	Mean Score	Standard Deviation
4	I am influential in my neighbourhood	2.82	1.12
5	I have more self confidence than most of my friends.	3.41	0.96
6	I like to be considered a leader.	3.04	1.15
	Cronbach's alpha 0.5106		

Table 7.6: Reliable Opinion Leader Statements

(n=1000)

The three remaining statements have been subject to a reliability test to ensure their criterion validity. The Cronbach's α value for the three statements is 0.5106. This value has been regarded as a reliable cutoff for the present study. Hence, a weighted mean of the three statements follows to obtain the mean score for the Opinion Leader factor.

	Mean Score	Standard Deviation
OPINION LEADER	3.09	0.77

Table 7.7: Reliable Opinion Leader Factor

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The respondents tend to be towards "agreement" in respect to the **OL** factor (mean score = 3.09).

7.2.1.3 INTEREST IN PRODUCTS (IP)

	INTEREST IN PRODUCTS (IP)	Mean Score	Standard Deviation
8	Information from advertising helps me make better buying decisions.	3.25	1.12
9	I like to buy new and different things	3.47	1.05
10	I am usually among the first to try new products.	2.67	1.04
11	My friends and neighbours often come to me for advice about products and brands.	2.90	1.09
12	I often seek out the advice of my friends regarding brands and products.	3.27	1.10
	Cronbach's alpha 0.5749		

Table 7.8: Interest in Products Statements

(n=1000)

The five statements have been subject to a reliability test to ensure their criterion validity. The Cronbach's α value for the three statements is 0.5749. This value has been regarded as a reliable cutoff for the present study. Hence, a weighted mean of the three statements follows to obtain the mean score for the Interest in Products (IP) factor.

	Mean Score	Standard Deviation
INTEREST IN PRODUCTS	3.11	0.66

Table 7.9: Interest in Products Factor

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The respondents tend to be towards "agreement" in respect to the IP factor (mean score = 3.11).

7.2.1.4 BRAND LOYALTY (BL)

	BRAND LOYALTY (BL)	Mean Score	Standard Deviation
13	When I have a favourite brand I buy it no matter what else is on sale.	3.18	1.21
14	A nationally advertised brand is usually a better buy than a generic (not known) brand.	3.32	1.01
15	I try to stick to well-known brand names.	3.41	1.01
16	A store's own brand is usually a better buy than a nationally advertised brand.	2.81	0.88
	Cronbach's alpha 0.4981		

Table 7.10: Brand Loyalty Statements

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

Given that the initial Cronbach's alpha is low, Table 7.11 presents a correlation matrix of the BL statements.

Person Correlation Coefficient	13. When I have a favourite brand I buy it no matter what else is on sale.	14. A nationally advertised brand is usually a better buy than a generic (not known) brand.	15. I try to stick to well-known brand names.	16. A store's own brand is usually a better buy than a nationally advertised brand.
13. When I have a favourite brand I buy it no matter what else is on sale.		0.156**	0.364**	0.069*
14. A nationally advertised brand is usually a better buy than a generic (not known) brand.	0.156**		0.396**	0.074*
15. I try to stick to well-known brand names.	0.364**	0.396**		0.064*
16. A store's own brand is usually a better buy than a nationally advertised brand.	0.069*	0.074*	0.064*	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7.11: Correlation Matrix Brand Loyalty Statements

(n=1000)

The correlation matrix revealed that statement 15 'A store's own brand is usually a better buy than a nationally advertised brand' is not a valid criterion for **BL** since it shows a very weak correlation with the other **BL** statements. Hence it was eliminated.

	BRAND LOYALTY (BL)	Mean Score	Standard Deviation
13	When I have a favourite brand I buy it no matter what else is on sale.	3.18	1.21
14	A nationally advertised brand is usually a better buy than a generic (not known) brand.	3.32	1.01
15	I try to stick to well-known brand names.	3.41	1.01
	Cronbach's alpha 0.5583		

Table 7.12: Reliable Brand Loyalty Statements

(n=1000)

The remaining three **BL** statements have been subject to a reliability test to ensure their criterion validity. The Cronbach's α value for the three statements is 0.5583. This value has been regarded as a reliable cutoff for the present study. Hence, a weighted mean of the three statements follows to obtain the mean score for the Brand Loyalty (BL) factor.

	Mean Score	Standard Deviation
BRAND LOYALTY	3.30	0.79

Table 7.13: Brand Loyalty Factor

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The respondents tend to be towards "agreement" in respect to the **BL** factor (mean score = 3.30).

7.2.1.5 CARE IN SHOPPING (CS)

	CARE IN SHOPPING (CS)	Mean Score	Standard Deviation
17	Before going shopping, I sit down and make out a complete shopping list.	3.53	1.22
18	I always check prices even on small items.	3.83	1.11
	Cronbach's alpha 0.6429		

Table 7.14: Care in Shopping Statements

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The two CS statements have been subject to a reliability test to ensure their criterion validity. The Cronbach's α value for the three statements is 0.6429. This value has been regarded as a reliable cutoff for the present study. Hence, a weighted mean of the three statements follows to obtain the mean score for the Care in Shopping (CS) factor.

	Mean Score	Standard Deviation
CARE IN SHOPPING (CS)	3.68	1.00

Table 7.15: Care in Shopping Factor

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The respondents tend to 'agree' in respect to the CS factor (mean score = 3.68).

Hence the rating of the five attitude factors can be summarised as follows:

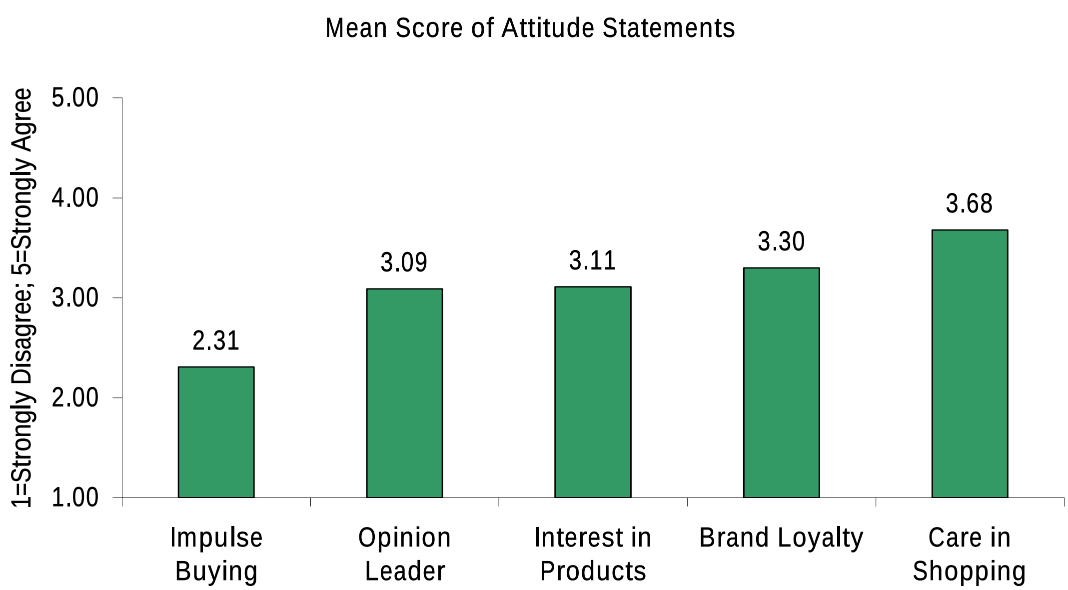


Figure 7.11: Mean Score of Attitude Statements

(n=1000)

7.2.1.6 ATTITUDE FACTORS ACROSS INDEPENDENT VARIABLES

In addition to the above first analysis, the researcher has done further analysis to profile the attitude of the respondent. The Person Chi-Square where p value must be smaller than 0.05 to validate a crosstabulation has been used to screen any insignificant calculations. The researcher has chosen to use this nonparametric test because of the nominal nature of the independent variables, namely, occupational group, gender, age, location, education, monthly household income and ethnic group.

Attitude factor	Occupational groups		Gender		Age bracket		Location		Educational background		Monthly household income		Ethnic group	
	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level
IB	64.90	0.05	0.24	0.99	31.61	0.01	9.53	0.05	26.23	0.56	36.15	0.02	17.86	0.12
OL	62.79	0.07	9.11	0.06	13.66	0.62	2.51	0.64	23.45	0.71	29.01	0.09	7.71	0.81
IP	101.3	0.00	6.02	0.20	51.90	0.00	5.39	0.25	38.86	0.08	35.66	0.02	23.85	0.02
BL	46.38	0.54	9.59	0.05	7.11	0.97	34.99	0.00	38.87	0.08	24.30	0.23	21.71	0.04
CS	73.20	0.01	10.42	0.03	31.65	0.01	19.38	0.01	33.16	0.23	24.97	0.20	12.25	0.43

Table 7.16: Chi-Square Attitude Factors across Demographic Variables

FINDINGS 2: PSYCHOGRAPHICS PROFILE OF THE RESPONDENTS

ATTIDUDE OF CONSUMERS

7.2.1.6.1 IMPULSE BUYING

The chi-square test has revealed that four are valid significant differences for the 'Impulse Buying' factor across 'Occupational group', 'Age Bracket', 'Location' and 'Monthly Household Income'.

- IMPULSE BUYING*OCCUPATIONAL GROUP

		IMPULSE BUYING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
OCCUPATIONAL GROUP	**A**	25.0	37.5	25.0	12.5	-	100.0
	B	23.5	64.7	11.8	-	-	100.0
	C	26.7	44.4	24.4	4.4	-	100.0
	D	23.1	43.6	28.2	5.1	-	100.0
	E	18.6	50.0	21.4	8.6	1.4	100.0
	F	17.6	29.4	41.2	11.8	-	100.0
	G	8.2	50.0	33.7	5.1	3.1	100.0
	H	12.9	39.8	34.4	10.8	2.2	100.0
	I	15.0	35.4	32.7	15.9	0.9	100.0
	J	26.0	42.0	22.0	6.0	4.0	100.0
	K	22.0	50.0	22.4	5.2	0.4	100.0
	L	14.5	45.2	25.0	12.9	2.4	100.0
	M	25.6	43.0	22.1	8.1	1.2	100.0
	Total	18.6	45.0	26.5	8.5	1.4	100.0

*Table 7.17: Crosstab Impulse Buying*Occupational Group*

(n=1000)

63.6% of the respondents have expressed their disagreement about the 'impulse buying' factor.

		Occupational Group												
Opinion Leader	Ratio	A	B	C	D	E	F	G	H	I	J	K	L	M
	Disagreement	2	8	2	2	2	1	2	1	1	2	3	2	2
	Agreement	1	1	1	1	1	1	1	1	1	1	1	1	1

*Table 7.18: Ratio Impulse Buying*Occupational Group*

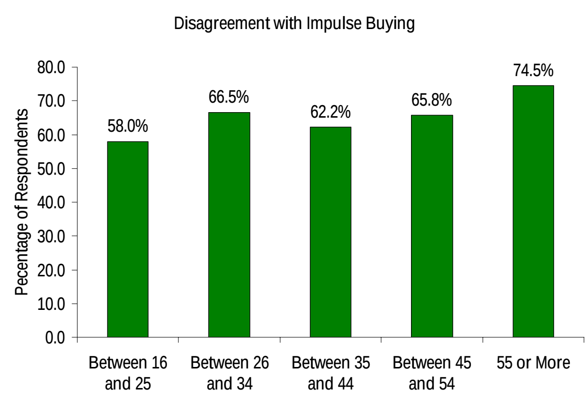
Across all occupational groups, the factor 'impulse buyer' has scored at least a 2:1 ratio towards disagreement. Also 'professionals' (B) have expressed a greater disagreement in respect of this factor (8:1).

- IMPULSE BUYING * AGE BRACKET

		IMPULSE BUYING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
AGE BRACKET	Between 16 and 25	15.3	42.7	28.7	11.4	2.0	100.0
	Between 26 and 34	13.9	52.6	26.3	6.7	0.5	100.0
	Between 35 and 44	16.8	45.4	28.2	8.0	1.7	100.0
	Between 45 and 54	26.5	39.4	25.2	7.1	1.9	100.0
	55 or More	29.2	45.3	18.9	6.6	-	100.0
	Total	18.6	45.0	26.5	8.5	1.4	100.0

*Table 7.19: Age * Impulse Buying Crosstabulation*

As it can be observed in the above, 45.0% of the respondents 'disagree' and 18.6% 'strongly disagree' about being impulse buyers. Moreover, a stronger level of disagreement was voiced out by the '55 or more' age bracket'. The researcher hence concludes that the attitude of this age bracket towards buying is more conscientious than those in other age brackets.



- IMPULSE BUYING * LOCATION

		IMPULSE BUYING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	21.2	40.3	27.3	9.1	2.1	100.0
	Rural	16.6	48.7	25.8	8.0	0.9	100.0
	Total	18.6	45.0	26.5	8.5	1.4	100.0

*Table 7.20: Crosstab Impulse Buying*Location*

(n=1000)

As per Table 7.20, even across 'Location', the respondents tend to express their disagreement in respect of the 'impulse buying' factor (63.6%). However, this negative opinion is more present in the rural regions (65.2%) than the urban ones (61.5%).

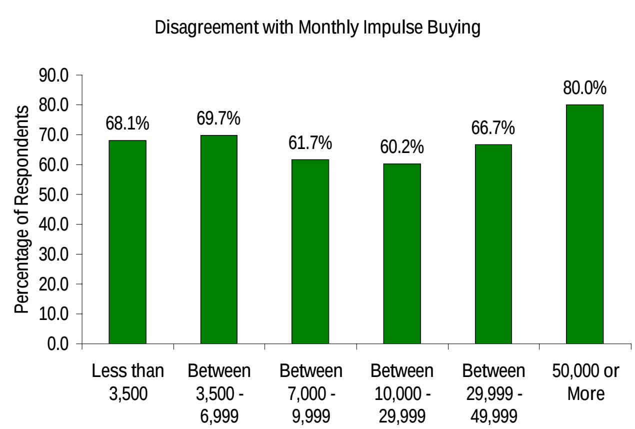
- IMPULSE BUYING * MONTHLY HOUSEHOLD INCOME

		IMPULSE BUYING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
MONTHLY HOUSEHOLD INCOME	Less than 3,500	19.4	48.6	23.6	5.6	2.8	100.0
	Between 3,500 - 6,999	16.4	53.2	23.9	6.5		100.0
	Between 7,000 - 9,999	19.8	41.9	28.9	9.1	0.4	100.0
	Between 10,000 - 29,999	17.3	42.9	28.5	9.5	1.7	100.0
	Between 29,999 - 49,999	27.8	38.9	16.7	9.3	7.4	100.0
	50,000 or More	30.0	50.0	10.0	10.0		100.0
	Total	18.6	45.0	26.5	8.5	1.4	100.0

*Table 7.21: Monthly Household Income * Impulse Buying Crosstabulation*

(n=1000)

Out of the 63.6% of the respondents who are on the disagreement with 'impulse buying' across 'Monthly Household Income', 80% are from the '50,000 or more' monthly income bracket.



7.2.6.2 OPINION LEADER

The chi-square test has revealed that there are no valid significant differences for the 'Opinion Leader' factor across the independent variables.

7.2.6.3 INTEREST IN PRODUCTS

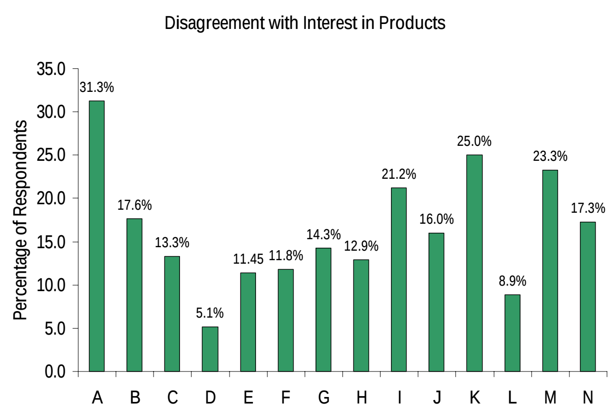
The screening process has revealed that there are valid significant differences for the 'Interest in Products' factor across four independent variables, namely, 'Occupational Group', 'Age Bracket', 'Monthly Household Income' and 'Ethnic Group',

- INTEREST IN PRODUCTS*OCCUPATIONAL GROUP

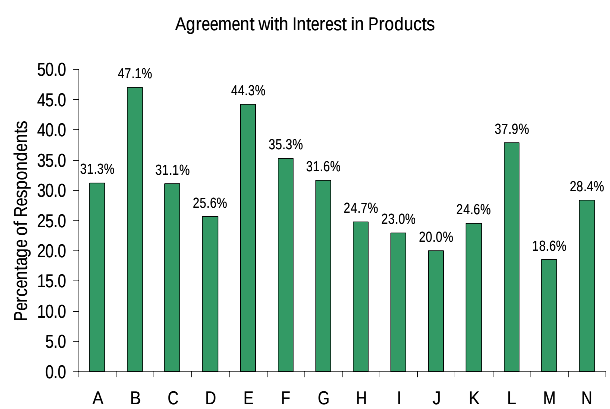
		INTEREST IN PRODUCTS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
OCCUPATIONAL GROUP	**A**	-	31.3	37.5	31.3	-	100.0
	B	-	17.6	35.3	47.1	-	100.0
	C	-	13.3	55.6	28.9	2.2	100.0
	D	-	5.1	69.2	23.1	2.6	100.0
	E	-	11.4	44.3	34.3	10.0	100.0
	F	-	11.8	52.9	23.5	11.8	100.0
	G	3.1	11.2	54.1	30.6	1.0	100.0
	H	-	12.9	62.4	21.5	3.2	100.0
	I	-	21.2	55.8	23.0	-	100.0
	J	-	16.0	64.0	20.0	-	100.0
	K	1.3	23.7	50.4	22.8	1.7	100.0
	L	0.8	8.1	53.2	36.3	1.6	100.0
	M	4.7	18.6	58.1	18.6	-	100.0
	Total	1.1	16.2	54.3	26.3	2.1	100.0

*Table 7.22: Occupational Group * Opinion Leader Crosstabulation*

(n=1000)



Although more than half (54.3%) of the respondents along the 'Interest in Products' continuum fall on the neutral point, interestingly 28.4% are on the agreement points while only 17.3% are on the disagreement points. In fact, the 'Legislators, Senior Officials & Managers' (A) respondents were head and shoulders ahead of the other occupational groups in respect disagreement (31.3%) with 'Interest in Products'.. With regard to agreement with the 'Interest in Products' factor, most of the 'Professionals'(B) have voiced their agreement (47.1%). Going further in the analysis of 'Occupational Group across 'Interest in Products', the researcher has computed a ratio on the agreement : disagreement across occupational group to shed more light on these variables. A stronger ratio agreement : disagreement in favour of agreement has been observed for 'Clerks' (D), that is, 5:1.



		Occupational Group												
Opinion Leader	Ratio	A	B	C	D	E	F	G	H	I	J	K	L	M
	Agreement	1	3	2	5	4	3	2	2	1	1	1	4	1
	Disagreement	1	1	1	1	1	1	1	1	1	1	1	1	1

*Table 7.23: Ratio Agreement : Disagreement Occupational Group*Interest in Products*

(n=1000)

- INTEREST IN PRODUCTS *AGE BRACKET

		INTEREST IN PRODUCTS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
AGE BRACKET	Between 16 and 25	1.0	10.7	53.1	32.9	2.3	100.0
	Between 26 and 34		16.5	57.7	23.2	2.6	100.0
	Between 35 and 44	0.4	16.0	55.5	26.1	2.1	100.0
	Between 45 and 54	0.6	24.5	47.1	25.8	1.9	100.0
	55 or More	5.7	19.8	59.4	14.2	0.9	100.0
	Total	1.1	16.2	54.3	26.3	2.1	100.0

*Table 7.24: Crosstab Interest In Products *Age Bracket*

(n=1000)

Across ‘age bracket’, 28.4% of the respondents have expressed their ‘agreement’ concerning ‘interest in products’ as compared to only 17.3% who ‘disagreed’. Greater ‘agreement’ was expressed by the ‘between 16 and 25’ age bracket (35.2%). Moreover, greater ‘disagreement’ was found for the ’55 or more’ and the ‘between 45 and 54’ age bracket (25.5% and 25.2% respectively).

- INTEREST IN PRODUCTS *MONTHLY HOUSEHOLD INCOME

		INTEREST IN PRODUCTS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
MONTHLY HOUSEHOLD INCOME	Less than 3,500	4.2	18.1	58.3	18.1	1.4	100.0
	Between 3,500 - 6,999	0.5	17.9	60.2	20.9	0.5	100.0
	Between 7,000 - 9,999		15.0	55.3	26.5	3.2	100.0
	Between 10,000 - 29,999	1.7	16.1	52.4	27.6	2.2	100.0
	Between 29,999 - 49,999		16.7	37.0	42.6	3.7	100.0
	50,000 or More			50.0	50.0		100.0
	Total	1.1	16.2	54.3	26.3	2.1	100.0

*Table 7.25: Crosstab Interest In Products *Monthly Household Income*

(n=1000)

In respect to monthly household income, the trend is towards ‘agreement’ for ‘interest in products’. The ’50,000 or more’ group has a 50% of respondents who ‘agree’ about interest in 'products' followed by the 'between 29,999 and 49,999' group (46.3%). Interestingly, the is an inverse relationship between agreement :disagreement as 'monthly household income' increases.

INTEREST IN PRODUCTS *ETHNIC GROUP

		INTEREST IN PRODUCTS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians		11.5	69.2	19.2		100.0
	General Population	1.0	13.5	59.6	20.2	5.8	100.0
	Hindu	1.0	15.4	51.3	30.1	2.2	100.0
	Muslim	1.4	19.2	57.3	21.4	0.7	100.0
	Total	1.1	16.2	54.3	26.3	2.1	100.0

*Table 7.26: Crosstab: Interest In Products *Ethnic Group*

(n=1000)

Out of the 28.4% of the respondents who have expressed an 'agreement' for 'interest in products', 32.3% are from the 'hindu' ethnic group', 26.0% from the 'general population', 22.1% from the 'muslim' community and 19.2% are 'sino-mauritians'.

7.2.6.4 BRAND LOYALTY

The chi-square test has revealed that there are valid significant differences for the 'Brand Loyalty' factor across 'Gender', 'Location' and 'Ethnic Group'.

- BRAND LOYALTY*GENDER

		BRAND LOYALTY					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GENDER	Male	0.8	11.8	43.4	38.6	5.4	100.0
	Female	2.0	16.1	44.4	31.5	6.0	100.0
	Total	1.4	14.0	43.9	35.0	5.7	100.0

*Table 7.27: Crosstab: Brand Loyalty*Gender*

(n=1000)

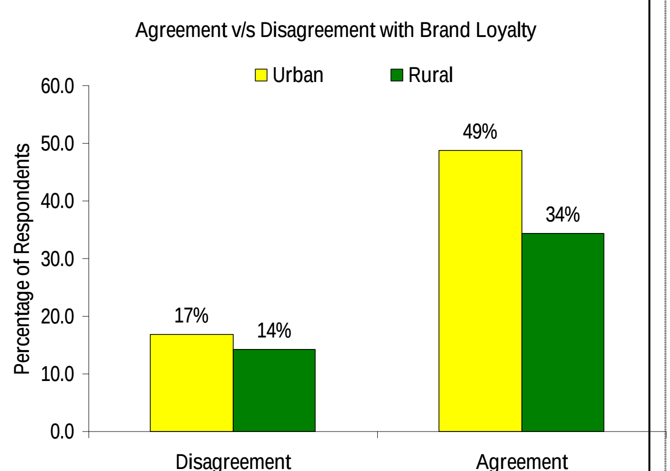
40.7% of the respondents have expressed their 'agreement' in respect of 'brand loyalty'. In addition, the 'male' respondents are more 'brand loyal' than the 'female' respondents (44.0% and 37.5% respectively).

- BRAND LOYALTY*LOCATION

		BRAND LOYALTY					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	1.6	15.3	34.4	40.1	8.7	100.0
	Rural	1.2	13.0	51.3	31.0	3.4	100.0
	Total	1.4	14.0	43.9	35.0	5.7	100.0

*Table 7.28: Crosstab Where do you live? * Brand Loyalty*

Although 43.9% of the respondents responded with a neutral answer, most of them were agreeable about being brand loyal 40.7% (agree – 35.0% and strongly agree – 5.7%) as compared to only 18% disagreeing. Moreover, the 'urban' respondents are of a more brand loyal attitude (49%) than the 'rural' respondents (34%). Hence, the researcher concludes that urban citizens represent a greater potential for long term business and brand loyalty than the rural ones.



- BRAND LOYALTY*ETHNIC GROUP

		BRAND LOYALTY					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians		26.9	42.3	30.8		100.0
	General Population	1.0	14.4	46.2	36.5	1.9	100.0
	Hindu	1.7	11.5	45.7	36.0	5.1	100.0
	Muslim	1.1	17.8	39.5	32.7	8.9	100.0
	Total	1.4	14.0	43.9	35.0	5.7	100.0

*Table 7.29: Crosstab Brand Loyalty*Ethnic Group*

(n=1000)

Out of the 35.0% of the respondents who have expressed an ‘agreement’ for ‘brand loyalty’, 41.6% are from the ‘muslim’ ethnic group’, 41.1% from the ‘hindu’ , 38.5% from the “general population’ and 30.8% are ‘sino-mauritians’.

7.2.6.5 CARE IN SHOPPING

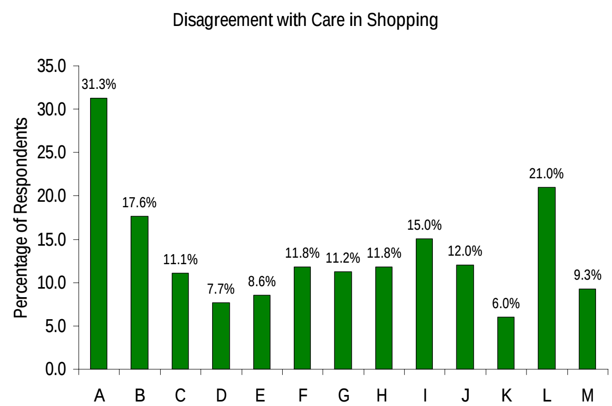
The chi-square test has revealed that there are valid significant differences for the Care in Shopping' factor across four of the independent variables, namely, 'Occupational Group', 'Gender', 'Age Bracket' and 'Location'.

- CARE IN SHOPPING*OCCUPATIONAL GROUP

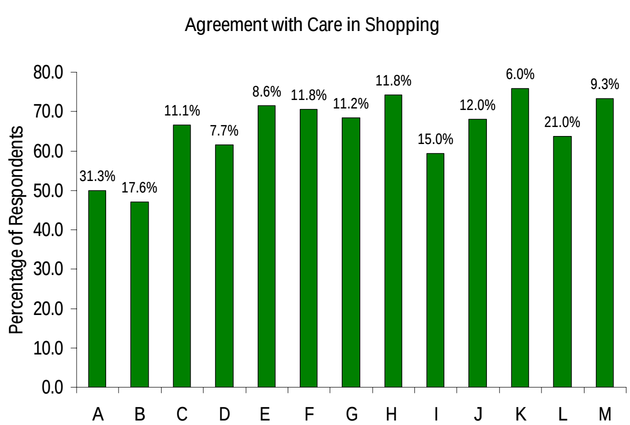
		CARE IN SHOPPING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
OCCUPATIONAL GROUP	**A**	6.3	25.0	18.8	43.8	6.3	100.0
	B	5.9	11.8	35.3	29.4	17.6	100.0
	C	-	11.1	22.2	40.0	26.7	100.0
	D	-	7.7	30.8	23.1	38.5	100.0
	E	1.4	7.1	20.0	48.6	22.9	100.0
	F	-	11.8	17.6	47.1	23.5	100.0
	G	4.1	7.1	20.4	36.7	31.6	100.0
	H	3.2	8.6	14.0	49.5	24.7	100.0
	I	3.5	11.5	25.7	32.7	26.5	100.0
	J	2.0	10.0	20.0	46.0	22.0	100.0
	K	0.4	5.6	18.1	36.6	39.2	100.0
	L	3.2	17.7	15.3	42.7	21.0	100.0
	M	3.5	5.8	17.4	48.8	24.4	100.0
	Total	2.3	9.4	19.6	40.3	28.4	100.0

*Table 7.30: Crosstab Occupational Group * Care in Shopping*

(n=1000)



Only 11.7% of the respondents had expressed their disagreement about taking 'care in shopping'. Nearly three quarter of the respondents had chosen an agreement option with regards to 'Care in Shopping'" and the average percentage of respondents who had this attitude was 65.4%. A ratio analysis of the agreement : disagreement has revealed that those involved in 'household duties' had a stronger agreement : disagreement ratio in favour of 'care in shopping', that is, 13:1. Other occupational group having a strong agreement : disagreement ratio in favour of 'care in shopping' are Clerks (D) (8:1), Service workers and shop sales workers (E) (8:1), Retired, disabled & others (M) (8:1).



		Occupational Group												
Care in Shopping	Ratio	A	B	C	D	E	F	G	H	I	J	K	L	M
	Agreement	2	3	6	8	8	6	6	6	4	6	13	3	8
	Disagreement	1	1	1	1	1	1	1	1	1	1	1	1	1

*Table 7.31: Ratio Agreement : Disagreement Occupational Group*Care in Shopping*

(n=1000)

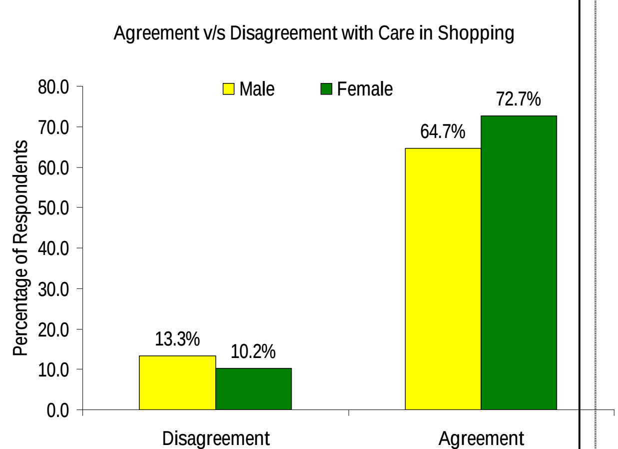
- CARE IN SHOPPING*GENDER

		CARE IN SHOPPING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GENDER	Male	3.2	10.0	22.1	39.2	25.5	100.0
	Female	1.4	8.8	17.1	41.4	31.3	100.0
	Total	2.3	9.4	19.6	40.3	28.4	100.0

*Table 7.32: Crosstab Gender * Care in Shopping*

(n=1000)

68.7% (40.3% agree and 28.4% strongly agree) of the respondents were of the agreement that care should be exercised in shopping. More of the 'female' (72.7%) respondents agreed in respect of 'care in shopping' as compared to 61.7% of the male respondents.



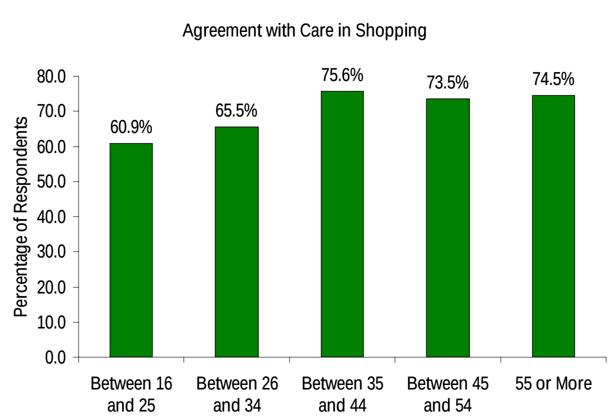
- CARE IN SHOPPING*AGE BRACKET

		CARE IN SHOPPING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
AGE BRACKET	Between 16 and 25	3.3	12.4	23.5	37.8	23.1	100.0
	Between 26 and 34	2.1	10.3	22.2	40.2	25.3	100.0
	Between 35 and 44	1.3	5.9	17.2	42.0	33.6	100.0
	Between 45 and 54	1.9	11.0	13.5	36.8	36.8	100.0
	55 or More	2.8	4.7	17.9	49.1	25.5	100.0
	Total	2.3	9.4	19.6	40.3	28.4	100.0

*Table 7.33: Crosstab Age * Care in Shopping*

(n=1000)

68.7% (40.35 agree, 28.4% strongly agree) of the respondents are agreeable about the 'Care in Shopping' factor. In addition, what has been observed is that 75.6% of the agreeable respondents were from the 'between 36 and 44' age bracket, followed by 74.5% from the '55 or more' age bracket. Also, younger respondents have expressed a lower agreement in respect if this factor (60.9%).



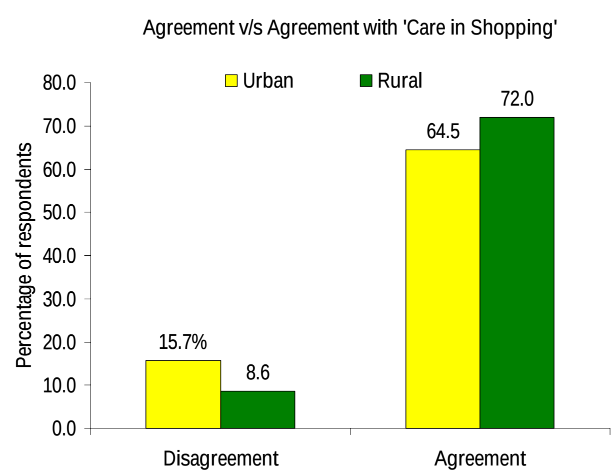
- CARE IN SHOPPING*LOCATION

		CARE IN SHOPPING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	4.3	11.4	19.8	37.6	26.9	100.0
	Rural	0.7	7.8	19.4	42.4	29.6	100.0
	Total	2.3	9.4	19.6	40.3	28.4	100.0

*Table 7.34: Crosstab Where do you live? * Care in Shopping*

(n=1000)

Out of the 68.7% of the respondents who expressed an agreement about the ‘Care in Shopping’ factor, 72.0% were from the ‘rural’ location and 61.5% the ‘urban’ location.



7.2.2 ADVERTISING STATEMENTS

	OTHERS - ADVERTISING	Mean Score	Standard Deviation
19	Magazines are more interesting than television.	2.78	1.01
20	Television is my primary form of entertainment.	3.51	1.16
21	When I watch television, I usually change the station during commercials.	2.96	1.05
22	I refuse to buy a brand whose advertising I dislike.	2.79	1.08
23	Advertising insults my intelligence.	2.76	1.04

Table 7.35: Advertising Statements

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

These five statements have not been grouped in to one factor as they were not meant to define the advertising construct.

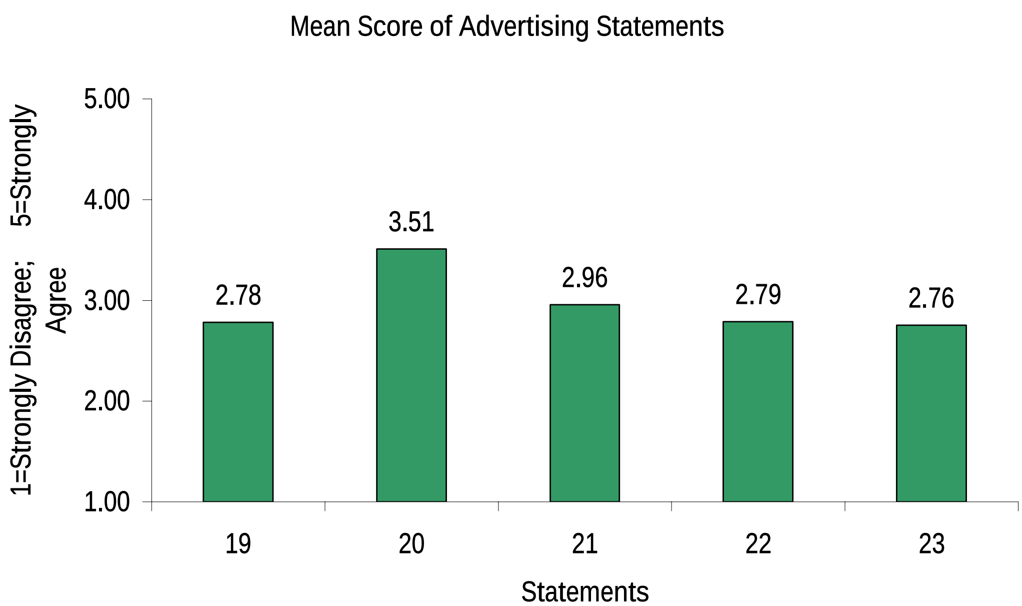


Figure 7.12: Mean Score of Advertising Statements

As far as advertising is concerned, the respondents agree that 'Television is my primary form of entertainment' (mean score = 3.51) and tend to be neutral about the other statements.

7.2.2.1 ADVERTISING STATEMENTS ACROSS INDEPENDENT VARIABLES

In addition to the above first analysis, the researcher has done further analysis to profile the attitude of the respondent towards advertising. The Person Chi-Square where p value must be smaller than 0.05 to validate a crosstabulation has been used to screen any insignificant calculations. The researcher has chosen to use this nonparametric test because of the nominal nature of the independent variables.

The results of the chi-square tests are shown in Table 7.33 below.

Attitude factor	Occupational groups		Gender		Age bracket		Location		Educational background		Monthly household income		Ethnic group	
	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level
Ad19	47.09	0.51	3.35	0.50	12.45	0.71	12.63	0.02	45.63	0.02	25.55	0.18	26.36	0.01
Ad20	64.16	0.59	1.21	0.88	26.37	0.05	16.45	0.00	49.53	0.01	14.87	0.78	13.91	0.30
Ad21	52.45	0.31	9.17	0.6	27.83	0.03	20.30	0.00	42.39	0.04	28.10	0.11	18.56	0.10
Ad22	48.48	0.45	4.25	0.37	27.32	0.04	16.55	0.00	25.09	0.63	31.80	0.05	17.85	0.12
Ad23	49.60	0.41	6.08	0.19	30.53	0.02	39.57	0.00	47.91	0.01	40.68	0.00	14.42	0.27

Table 7.36: Chi-square of Advertising across Demographic Profile

(n=1000)

The chi-square test has revealed significant differences for ‘Advertising’ across the ‘age’, ‘location’, ‘educational background’, ‘income’ and ‘ethnic group’ compositions.

7.2.2.1.1 MAGAZINES ARE MORE INTERESTING THAN TELEVISION

A significant difference ($p<0.05$) was observed for three demographic variables, namely, 'Location', 'Educational Background' and 'Ethnic Group'

- MAGAZINES ARE MORE INTERESTING THAN TELEVISION* LOCATION

		MAGAZINES ARE MORE INTERESTING THAN TELEVISION					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	11.8	30.3	34.6	16.9	6.4	100.0
	Rural	6.2	34.8	36.0	18.5	4.5	100.0
	Total	8.7	32.8	35.4	17.8	5.3	100.0

Table 7.37: Crosstab Magazines Are More Interesting Than Television Location*

(n=1000)

From Table 7.37, it is found that almost 41.5% of the respondents express disagreement with the statement 'magazines are more interesting than television' and are almost equally divided among rural and urban areas. The same trend can be depicted for the respondents who have expressed agreement on this statement related to advertising.

- MAGAZINES ARE MORE INTERESTING THAN TELEVISION* EDUCATIONAL BACKGROUND

		MAGAZINES ARE MORE INTERESTING THAN TELEVISION					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	17.9	35.7	35.7	7.1	3.6	100.0
	Primary	10.0	35.1	34.3	17.7	3.0	100.0
	School Certificate	10.0	34.3	32.7	17.8	5.3	100.0
	Higher School Certificate	8.0	26.3	40.6	17.7	7.4	100.0
	Vocational Training	10.3	53.8	28.2	5.1	2.6	100.0
	Diploma	5.9	21.6	31.4	29.4	11.8	100.0
	Degree	2.3	29.5	39.8	21.6	6.8	100.0
	Other		33.3	48.1	14.8	3.7	100.0
	Total	8.7	32.8	35.4	17.8	5.3	100.0

Table 7.38: Crosstab Magazines Are More Interesting Than Television Educational Background*

(n=1000)

Almost 41.5% of the respondents have expressed disagreement on this statement and 53.8% are those who have attended 'vocational training', followed by those with 'no schooling'. Respondents who have attained at least 'diploma level' have expressed agreement with the statement related to 'magazines being more interested than television'.

- MAGAZINES ARE MORE INTERESTING THAN TELEVISION* ETHNIC GROUP

		MAGAZINES ARE MORE INTERESTING THAN TELEVISION					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians	15.4	23.1	61.5	-	-	100.0
	General Population	14.4	34.6	34.6	12.5	3.8	100.0
	Hindu	8.8	33.4	32.4	19.5	5.8	100.0
	Muslim	5.7	31.7	39.5	17.8	5.3	100.0
	Total	8.7	32.8	35.4	17.8	5.3	100.0

Table 7.39: Crosstab Magazines Are More Interesting Than Television Ethnic Group*

(n=1000)

From Table 7.39, it is found that 41.5% of the respondents who have disagreed with the statement ‘magazines being more interested than television’, nearly 50% are from the ‘General Population’ closely followed by the ‘Hindus’.

7.2.2.1.2 TELEVISION IS MY PRIMARY FORM OF ENTERTAINMENT

Three demographic variables were accepted as being significant – 'Age Bracket', 'Location' and 'Educational Background'.

- TELEVISION IS MY PRIMARY FORM OF ENTERTAINMENT*AGE BRACKET

		TELEVISION IS MY PRIMARY FORM OF ENTERTAINMENT					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
AGE BRACKET	Between 16 and 25	6.5	16.9	15.0	43.3	18.2	100.0
	Between 26 and 34	3.1	25.3	13.9	38.1	19.6	100.0
	Between 35 and 44	3.4	18.9	13.9	42.9	21.0	100.0
	Between 45 and 54	1.9	25.2	11.6	40.0	21.3	100.0
	55 or More	11.3	15.1	14.2	37.7	21.7	100.0
	Total	4.9	20.1	13.9	41.1	20.0	100.0

*Table 7.40: Crosstab Television Is My Primary Form Of Entertainment*Age Bracket*

(n=1000)

From Table 7.40, it is found that 61.1% of the respondents have expressed agreement about the statement 'television is my primary form of entertainment'. The highest agreement was expressed by those 'between 34 and 44' age group (63.9%). Only 25.0% of the respondents have disagreed with this statement and 28.4% falls under the 'between 26 and 34' age group.

- TELEVISION IS MY PRIMARY FORM OF ENTERTAINMENT*LOCATION

		TELEVISION IS MY PRIMARY FORM OF ENTERTAINMENT					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	7.7	18.2	13.7	38.7	21.6	100.0
	Rural	2.7	21.6	14.1	43.0	18.7	100.0
	Total	4.9	20.1	13.9	41.1	20.0	100.0

*Table 7.41: Crosstab Television Is My Primary Form Of Entertainment*Location*

(n=1000)

Around 61% of the respondents have expressed agreement (20% who strongly agree) with the fact that TV remains their primary form of entertainment are split between rural and urban regions equally.

- TELEVISION IS MY PRIMARY FORM OF ENTERTAINMENT*EDUCATIONAL BACKGROUND

		TELEVISION IS MY PRIMARY FORM OF ENTERTAINMENT					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	7.1		17.9	42.9	32.1	100.0
	Primary	4.1	19.6	8.5	46.1	21.8	100.0
	School Certificate	4.0	17.8	14.3	41.4	22.4	100.0
	Higher School Certificate	4.6	22.9	20.0	36.6	16.0	100.0
	Vocational Training	10.3	17.9	7.7	33.3	30.8	100.0
	Diploma	11.8	23.5	15.7	39.2	9.8	100.0
	Degree	4.5	27.3	14.8	40.9	12.5	100.0
	Other	3.7	29.6	22.2	29.6	14.8	100.0
	Total	4.9	20.1	13.9	41.1	20.0	100.0

*Table 7.42: Crosstab Television Is My Primary Form Of Entertainment*Educational Background*

(n=1000)

Across ‘education’ as a demographic variable, it is found that almost 61.4% of the respondents who have agreed with the statement, majority of the respondents are from ‘no schooling’ background followed closely by those who have attended ‘primary schooling’.

7.2.2.1.3 WHEN I WATCH TELEVISION, I USUALLY CHANGE THE STATION DURING COMMERCIALS

- WHEN I WATCH TELEVISION, I USUALLY CHANGE THE STATION DURING COMMERCIALS *AGE BRACKET

		WHEN I WATCH TELEVISION, I USUALLY CHANGE THE STATION DURING COMMERCIALS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
AGE BRACKET	Between 16 and 25	6.5	26.4	24.1	32.6	10.4	100.0
	Between 26 and 34	5.7	37.6	23.7	28.4	4.6	100.0
	Between 35 and 44	5.9	35.3	28.2	25.2	5.5	100.0
	Between 45 and 54	3.2	38.7	29.7	23.9	4.5	100.0
	55 or More	8.5	33.0	29.2	25.5	3.8	100.0
	Total	5.9	33.3	26.4	27.9	6.5	100.0

*Table 7.43: Crossstab When I Watch Television, I Usually Change The Station During Commercials *Age Bracket*

(n=1000)

Out of 39.2% of the respondents who have disagreed with the statement on 'changing station during commercial', almost 43.3% belong to the age group '26-34, closely followed by age group 45-54 (28.4%). On the other hand, age group 16-25 has expressed this highest level of agreement with this statement.

- WHEN I WATCH TELEVISION, I USUALLY CHANGE THE STATION DURING COMMERCIALS *LOCATION

		WHEN I WATCH TELEVISION, I USUALLY CHANGE THE STATION DURING COMMERCIALS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	8.9	35.3	23.0	25.1	7.7	100.0
	Rural	3.6	31.7	29.1	30.1	5.5	100.0
	Total	5.9	33.3	26.4	27.9	6.5	100.0

*Table 7.44: Crossstab When I Watch Television, I Usually Change The Station During Commercials *Location*

(n=1000)

Out of the 39.4% of the respondents who disagreed with the statement, almost 44.2% belong to the urban regions of Mauritius. But out of the respondents who have expressed agreement, majority (35.6%) belong to the rural regions.

- WHEN I WATCH TELEVISION, I USUALLY CHANGE THE STATION DURING COMMERCIALS *EDUCATIONAL BACKGROUND

		WHEN I WATCH TELEVISION, I USUALLY CHANGE THE STATION DURING COMMERCIALS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	17.9	39.3	32.1	7.1	3.6	100.0
	Primary	4.8	34.3	29.9	25.5	5.5	100.0
	School Certificate	7.5	33.3	25.5	26.8	6.9	100.0
	Higher School Certificate	5.1	29.1	24.6	34.3	6.9	100.0
	Vocational Training	5.1	51.3	15.4	23.1	5.1	100.0
	Diploma	3.9	35.3	31.4	19.6	9.8	100.0
	Degree	4.5	23.9	22.7	39.8	9.1	100.0
	Other		44.4	25.9	29.6		100.0
	Total	5.9	33.3	26.4	27.9	6.5	100.0

*Table 7.45: Crossstab When I Watch Television, I Usually Change The Station During Commercials *Educational Background*

(n=1000)

From Table 7.45, it is found that almost 34.4% of the respondents who have agreed with the statement, majority are ‘Degree’ holders (48.9%) closely followed by the ‘H.S.C’ holders. On the other hand, respondents with no schooling backgroung (57.2%) followed by those with ‘Vocational Training’ (56.4%) have expressed disagreement with the change of TV stations during commercials. It means that they do not mind watching the commercials.

7.2.2.1.4 I REFUSE TO BUY A BRAND WHOSE ADVERTISING I DISLIKE

- I REFUSE TO BUY A BRAND WHOSE ADVERTISING I DISLIKE*AGE BRACKET

		I REFUSE TO BUY A BRAND WHOSE ADVERTISING I DISLIKE					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
AGE BRACKET	Between 16 and 25	10.1	38.1	23.5	20.5	7.8	100.0
	Between 26 and 34	7.7	47.4	24.2	18.0	2.6	100.0
	Between 35 and 44	4.6	41.2	25.6	20.2	8.4	100.0
	Between 45 and 54	8.4	29.0	30.3	24.5	7.7	100.0
	55 or More	7.5	39.6	32.1	17.0	3.8	100.0
	Total	7.8	39.4	26.1	20.2	6.5	100.0

*Table 7.46: Crossstab I Refuse To Buy A Brand Whose Advertising I Dislike*Age Bracket*

(n=1000)

From Table 7.46, it is found that 26.7% of the respondents have agreed with the statement, out of which majority (32.2%) belong to the age group 45-54 followed by age group 35-44 (28.6%). A regards respondents who have expressed disagreement with the statement (47.2%), majority of the respondents belong to age group 26-34 (55.1%), followed by those who are between 35-44 years of age.

- I REFUSE TO BUY A BRAND WHOSE ADVERTISING I DISLIKE *LOCATION

		I REFUSE TO BUY A BRAND WHOSE ADVERTISING I DISLIKE					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	10.3	34.2	25.7	21.4	8.4	100.0
	Rural	5.9	43.5	26.4	19.3	5.0	100.0
	Total	7.8	39.4	26.1	20.2	6.5	100.0

*Table 7.47: Crossstab I Refuse To Buy A Brand Whose Advertising I Dislike*Location*

(n=1000)

Responses on location-wise bases revealed that almost 47.2% of the respondents have disagreed with the statement and almost 49.4% belong to the rural areas of Mauritius. For the respondents who have agreed with the attitude statement, majority belong to the urban areas of Mauritius.

- I REFUSE TO BUY A BRAND WHOSE ADVERTISING I DISLIKE*MONTHLY HOUSEHOLD INCOME

		I REFUSE TO BUY A BRAND WHOSE ADVERTISING I DISLIKE					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
MONTHLY HOUSEHOLD INCOME	Less than 3,500	8.3	47.2	26.4	12.5	5.6	100.0
	Between 3,500 - 6,999	10.4	45.8	19.9	21.4	2.5	100.0
	Between 7,000 - 9,999	7.1	41.5	26.1	19.8	5.5	100.0
	Between 10,000 - 29,999	6.6	34.6	28.8	21.7	8.3	100.0
	Between 29,999 - 49,999	9.3	29.6	27.8	18.5	14.8	100.0
	50,000 or More	10.0	50.0	30.0	10.0		100.0
	Total	7.8	39.4	26.1	20.2	6.5	100.0

*Table 7.48: Crossstab I Refuse To Buy A Brand Whose Advertising I Dislike*Monthly Household Income*

(n=1000)

Out of the 47.2% who disagree about the statement, majority are from the ’50,000 or more’ (60.0%) monthly household income group. Only 26.7% of the respondents have expressed an agreement with the statement ‘I refuse to buy a brand whose ad I dislike’, majority of which are from the ‘between 29,999 and 49,999’ income bracket (33.3%) closely followed by the ‘between 10,000 and 29,999’ income bracket (30.0%).

7.2.2.1.5 ADVERTISING INSULTS MY INTELLIGENCE

- ADVERTISING INSULTS MY INTELLIGENCE *AGE BRACKET

		ADVERTISING INSULTS MY INTELLIGENCE					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
AGE BRACKET	Between 16 and 25	13.0	33.2	32.9	15.0	5.9	100.0
	Between 26 and 34	7.2	37.6	39.7	13.4	2.1	100.0
	Between 35 and 44	6.7	27.3	42.4	16.8	6.7	100.0
	Between 45 and 54	10.3	31.0	41.3	11.6	5.8	100.0
	55 or More	9.4	23.6	48.1	9.4	9.4	100.0
	Total	9.6	31.3	39.4	14.0	5.7	100.0

*Table 7.49: Crossstab Advertising Insults My Intelligence *Age Bracket*

(n=1000)

Table 7.46 reveals that almost 41.2% of the respondents have disagreed with the statement related to advertising and 46.2% belong to age group 16-25 years of age closely followed by age group 26-34 year of age (44.8%). From the respondents who have agreed with the fact that 'advertising insults my intelligence' (17.9%), majority (23.5%) belong to age group 35-44 years.

- ADVERTISING INSULTS MY INTELLIGENCE *LOCATION

		ADVERTISING INSULTS MY INTELLIGENCE					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	12.8	29.4	34.6	13.2	10.0	100.0
	Rural	7.1	32.8	43.1	14.6	2.3	100.0
	Total	9.6	31.3	39.4	14.0	5.7	100.0

*Table 7.50: Crosstab advertising insults my intelligence *Location*

(n=1000)

Table 7.50 displays the results location-wise related to the statement on 'advertising insults my intelligence'. Almost 40.9% of respondents have expressed their disagreement with the statement out of which 42.2% belong to urban regions of Mauritius.

- ADVERTISING INSULTS MY INTELLIGENCE *EDUCATIONAL BACKGROUND

		ADVERTISING INSULTS MY INTELLIGENCE					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	7.1	14.3	57.1	10.7	10.7	100.0
	Primary	7.4	27.3	46.1	14.0	5.2	100.0
	School Certificate	10.3	32.1	39.6	13.4	4.7	100.0
	Higher School Certificate	12.6	32.0	30.9	18.3	6.3	100.0
	Vocational Training	7.7	23.1	35.9	23.1	10.3	100.0
	Diploma	11.8	31.4	35.3	17.6	3.9	100.0
	Degree	11.4	40.9	33.0	5.7	9.1	100.0
	Other		55.6	40.7	3.7		100.0
	Total	9.6	31.3	39.4	14.0	5.7	100.0

*Table 7.51: Crosstab Advertising Insults My Intelligence *Educational Background*

(n=1000)

Out of the 40.9% of the respondents who have expressed their disagreement with the statement ‘advertising insults my intelligence’, 52.3% are ‘Degree’ holders followed by ‘H.S.C’ holders 44.6%. Disagreement was expressed by only 19.7% of the respondents, majority are from ‘vocational training’ (33.4%).

ADVERTISING INSULTS MY INTELLIGENCE* MONTHLY HOUSEHOLD INCOME

		ADVERTISING INSULTS MY INTELLIGENCE					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
MONTHLY HOUSEHOLD INCOME	Less than 3,500	5.6	26.4	45.8	11.1	11.1	100.0
	Between 3,500 - 6,999	11.9	26.9	35.8	20.9	4.5	100.0
	Between 7,000 - 9,999	11.1	32.8	38.7	13.0	4.3	100.0
	Between 10,000 - 29,999	7.8	32.9	42.7	11.5	5.1	100.0
	Between 29,999 - 49,999	14.8	33.3	20.4	16.7	14.8	100.0
	50,000 or More		40.0	50.0	10.0		100.0
	Total	9.6	31.3	39.4	14.0	5.7	100.0

*Table 7.52: Crosstab Advertising Insults My Intelligence *Monthly Household Income*

(n=1000)

Table 7.52 displays the results income-wise related to the statement 'advertising insults my intelligence'. Out of the 40.9% who expressed disagreement in respect to the statement, majority are within the monthly income bracket '29,999-49,999' (48.1%). Agreement was also higher for the same income group (31.5%).

7.3 FINDINGS 3: ENVIRONMENT RELATED CONCERNS OF THE RESPONDENTS

	Mean Score	Standard Deviation
What will be the state of the environment in Mauritius in the next 5 years?	3.05	1.25

Table 7.53: State of the Environment in the next 5 years

(n=1000)

	Worse	Slightly Worse	Same	Slightly Better	Better
Scale	1	2	3	4	5

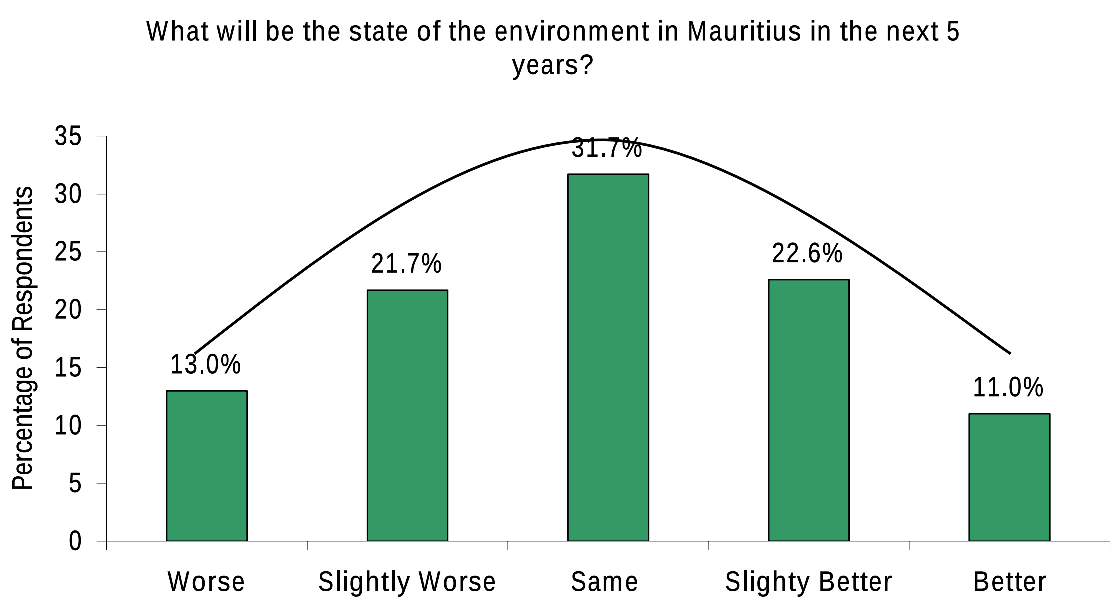


Figure 7.13: State of the Environment in Mauritius over the next 5 years

(n=1000)

Nearly one third (31.7%) of the respondents are of the opinion that the environment in Mauritius will stay the same in the next five years. 34.7% of the respondents fall on the 'worse' side and 33.6% on the better side. Further analysis of this dependant variable revealed that there were no significant differences across the demographic profile (independent) variables of the respondents.

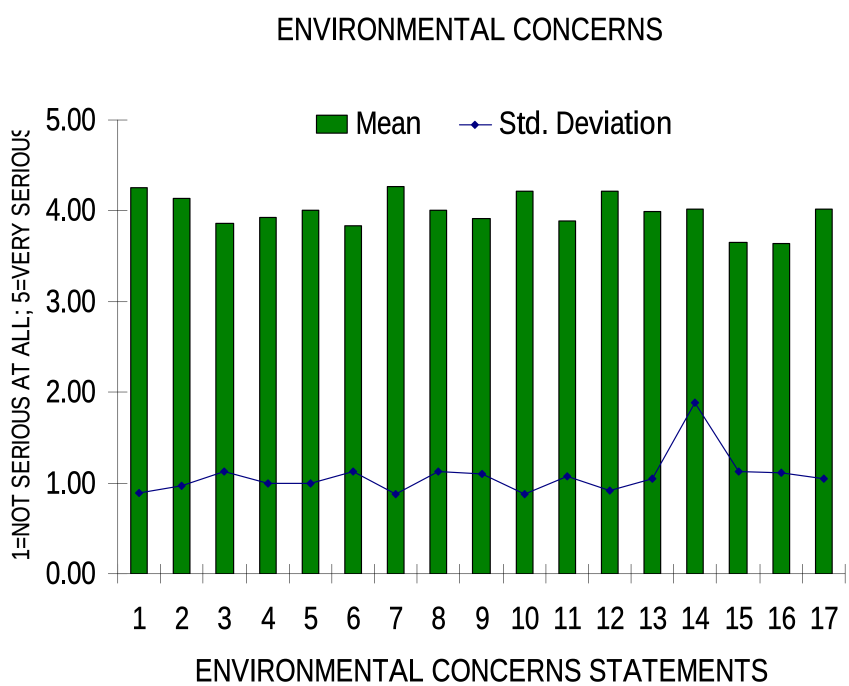


Figure 7.14: Environmental Concern Statements

(n=1000)

7.3.1 ENVIRONMENT CONCERNS

	How serious do you think are the following environmental concerns?	Mean Score	Standard Deviation
7	Industrial air pollution	4.26	0.87
1	Industrial water pollution	4.26	0.89
10	Auto air pollution	4.22	0.88
12	Pesticides on food	4.21	0.92
2	Destruction of ozone	4.14	0.97
17	Indoor air pollution from household cleaners, tobacco smoke, asbestos, etc.	4.01	1.05
14	Solid waste	4.01	1.88
5	Hazardous waste	4.01	0.99
8	Drinking water contamination	4.01	1.12
13	Warming up of the earth	3.99	1.05
4	Industrial accidents	3.93	0.99
9	Ocean contamination	3.91	1.10
11	Endangered species	3.89	1.07
3	Destruction of rain forest	3.86	1.13
6	Oil spills	3.84	1.12
15	Destruction of wetlands	3.65	1.13
16	Genetically Modified Products	3.64	1.11

Table 7.54: Seriousness of Environmental Concerns

(n=1000)

From the Table 7.54, it is seen that respondents have rated variables related to industrial air pollution, industrial water pollution, auto air pollution, destruction of ozone, pesticides on food among other with a mean greater than 4 as serious environmental concerns in Mauritius. Factors related to rainforest, oil spills, ocean contamination have score means less than 4 and nevertheless are viewed as environmental concerns equally.

7.3.2 STAKEHOLDERS

	Whom do you think is doing a good job on the environment?	Mean Score	Standard Deviation
1	Ministry of Environment (MoE)	3.77	0.93
2	Local Government (Municipality or District Councils) (LG)	3.45	0.98
3	NGO's	2.86	1.02
4	The Mauritian Public (MP)	3.24	0.95
5	Large Businesses of Mauritius (LBz)	2.84	1.03
6	Small Businesses of Mauritius (SBz)	2.75	1.00
---	Others (Please Specify (n=151)	3.43	0.93

Table 7.55: Stakeholders and the Environment

(n=1000)

The Ministry of Environment has scored the highest rating in term of doing a good job for the environment (mean=3.77), followed closely by Local Government (mean=3.45). In respect of the contribution of the other stakeholders to the environment, the respondents tend to be towards neutral.

7.3.2.1 STAKEHOLDERS ACROSS INDEPENDENT VARIABLES

	Occupational groups		Gender		Age bracket		Location		Educational background		Monthly household income		Ethnic group	
	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level
MoE	45.61	0.57	0.48	0.96	19.85	0.23	7.17	0.13	63.60	0.00	35.97	0.02	12.25	0.43
LG	48.62	0.45	9.25	0.06	18.62	0.30	3.89	0.42	65.81	0.00	9.35	0.98	23.10	0.03
MP	62.81	0.07	0.76	0.94	22.43	0.13	17.98	0.00	50.99	0.00	17.34	0.63	23.31	0.03
NGOs	50.23	0.39	2.80	0.59	11.78	0.76	26.15	0.00	30.59	0.34	30.96	0.06	14.90	0.25
LBz	49.55	0.41	6.58	0.16	16.43	0.42	12.30	0.02	37.11	0.11	19.20	0.51	23.74	0.02
SBz	84.67	0.00	4.68	0.32	14.63	0.55	19.16	0.00	43.30	0.03	17.97	0.60	25.67	0.01

Table 7.56: Chi-square of Stakeholders across Demographic Profile

(n=1000)

The chi-square test has revealed that there are significant differences in respect of the concern for the environment by the stakeholders across 'occupational group', 'location', 'educational background', 'monthly household income' and 'ethnic group'.

7.3.2.1.1 MINISTRY OF ENVIRONMENT

For the Ministry of Environment, significant differences have been observed across 'educational background' and 'monthly household income'.

- MINISTRY OF ENVIRONMENT *EDUCATIONAL BACKGROUND

		MINISTRY OF ENVIRONMENT					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	14.3	7.1	28.6	39.3	10.7	100.0
	Primary	3.0	10.7	11.1	58.3	17.0	100.0
	School Certificate	2.2	6.9	16.5	53.3	21.2	100.0
	Higher School Certificate	0.6	6.9	17.1	58.3	17.1	100.0
	Vocational Training	5.1	5.1	10.3	51.3	28.2	100.0
	Diploma		17.6	11.8	56.9	13.7	100.0
	Degree	2.3	6.8	18.2	63.6	9.1	100.0
	Other	3.7	25.9	22.2	37.0	11.1	100.0
	Total	2.5	8.9	15.3	55.7	17.6	100.0

*Table 7.57: Crosstab Ministry Of Environment *Educational Background*

(n=1000)

Nearly three quarter (73.3%) of the respondents is of the opinion that the Ministry of Environment is doing a good job for the environment. This opinion is stronger for the 'vocational training' educational background (79.5%), closely followed by the 'primary' schooling (75.3%), the 'H.S.C' holders (75.4%), and the 'S.C' holders (74.5%).

- MINISTRY OF ENVIRONMENT *MONTHLY HOUSEHOLD INCOME

		MINISTRY OF ENVIRONMENT					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
MONTHLY HOUSEHOLD INCOME	Less than 3,500	6.9	11.1	13.9	51.4	16.7	100.0
	Between 3,500 - 6,999	3.0	8.0	14.9	62.2	11.9	100.0
	Between 7,000 - 9,999	2.0	9.9	17.8	53.0	17.4	100.0
	Between 10,000 - 29,999	1.7	8.5	12.9	55.9	21.0	100.0
	Between 29,999 - 49,999	3.7	7.4	16.7	55.6	16.7	100.0
	50,000 or More		10.0	60.0	20.0	10.0	100.0
	Total	2.5	8.9	15.3	55.7	17.6	100.0

*Table 7.58: Crosstab Ministry of Environment *Monthly household Income*

(n=1000)

In terms of monthly household income, the respondents earning between '10,000-29,999' are of the opinion that the MoE is doing a good job for the environment (76.8%), closely followed by the group 'between 3,500 – 6,999' (74.1%).

7.3.2.1.2 LOCAL GOVERNMENT (MUNICIPALITY OR DISTRICT COUNCILS) - (LG)

In respect of the Local Government, significant differences has been found for 'education background' and 'ethnic group'.

- LOCAL GOVERNMENT*EDUCATIONAL BACKGROUND

		LOCAL GOVERNMENT					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	21.4	17.9	25.0	32.1	3.6	100.0
	Primary	2.6	14.4	18.5	52.4	12.2	100.0
	School Certificate	2.2	14.6	24.6	45.5	13.1	100.0
	Higher School Certificate	1.7	14.3	28.0	49.1	6.9	100.0
	Vocational Training	5.1	15.4	20.5	48.7	10.3	100.0
	Diploma	5.9	17.6	25.5	49.0	2.0	100.0
	Degree	5.7	21.6	22.7	43.2	6.8	100.0
	Other	3.7	22.2	44.4	29.6		100.0
	Total	3.4	15.6	23.8	47.3	9.9	100.0

Table 7.59: Crosstab Local Government*Educational Background

(n=1000)

57.2% of the respondents are of the opinion that Local Governments are doing a fine job for the environment. Those with 'primary schooling' represent majority with 64.6%. The highest disagreement with Local Government in respect of this issue have been recorded from those with 'no schooling' (39.3%).

- LOCAL GOVERNMENT*ETHNIC GROUP

		LOCAL GOVERNMENT					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians	7.7	23.1	26.9	38.5	3.8	100.0
	General Population	4.8	7.7	36.5	43.3	7.7	100.0
	Hindu	3.7	15.4	21.1	48.9	10.9	100.0
	Muslim	1.8	18.1	24.6	46.3	9.3	100.0
	Total	3.4	15.6	23.8	47.3	9.9	100.0

*Table 7.60: Crosstab Local Government*Ethnic group*

(n=1000)

Out of the 57.2% of the Mauritians who have agreed that the Local Governments are doing a good job in regards of the environment, 59.8% are from the ‘Hindu’ community, 55.5% ‘Muslim’, 51.0% from the ‘General Population’ and 42.3% from the ‘Sino-Mauritian’ community.

7.3.2.1.3 THE MAURITIAN PUBLIC (MP)

Out of the seven demographic variables, three variables are significant across the Mauritian Public as a stakeholder, namely, 'Location', "Educational Background' and 'Ethnic Group'.

- THE MAURITIAN PUBLIC *LOCATION

		THE MAURITIAN PUBLIC					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	13.7	27.1	31.7	24.4	3.2	100.0
	Rural	5.9	29.8	33.7	26.6	4.1	100.0
	Total	9.3	28.6	32.8	25.6	3.7	100.0

*Table 7.61: Crosstab The Mauritian Public*Location*

(n=1000)

Nearly one third (32.8%) of the respondents are neutral in respect of the Mauritian Public doing a good job for the environment. 37.9% are on the disagreement side and 29.3% on the agreement side. Also, those in the rural regions of Mauritius are more agreeable about this stakeholder doing a good job for the environment (60.0%) as compared to 56.0% for those living in the urban regions.

- THE MAURITIAN PUBLIC *EDUCATIONAL BACKGROUND

		THE MAURITIAN PUBLIC					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	21.4	21.4	39.3	14.3	3.6	100.0
	Primary	8.9	28.0	31.0	29.9	2.2	100.0
	School Certificate	9.3	25.9	32.1	26.5	6.2	100.0
	Higher School Certificate	7.4	28.6	36.6	24.6	2.9	100.0
	Vocational Training	7.7	17.9	28.2	35.9	10.3	100.0
	Diploma	9.8	33.3	29.4	25.5	2.0	100.0
	Degree	10.2	45.5	35.2	9.1	-	100.0
	Other	11.1	25.9	33.3	29.6		100.0
	Total	9.3	28.6	32.8	25.6	3.7	100.0

*Table 7.62: Crosstab The Mauritian Public*Educational Background*

(n=1000)

Out of the 37.9% who disagreed in respect of the Mauritian Public, majority are the 'Degree' holders 55.7%. On the agreement side (29.3%), the majority are those who had 'Vocation Training'. The least agreement was voiced out by the 'Degree' holders, only 9.1%.

- THE MAURITIAN PUBLIC*ETHNIC GROUP

		THE MAURITIAN PUBLIC					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians	7.7	23.1	46.2	19.2	3.8	100.0
	General Population	9.6	17.3	39.4	30.8	2.9	100.0
	Hindu	7.8	29.7	30.9	26.7	4.9	100.0
	Muslim	12.5	31.0	33.1	22.1	1.4	100.0
	Total	9.3	28.6	32.8	25.6	3.7	100.0

*Table 7.63: Crosstab The Mauritian Public*Educational Background*

(n=1000)

As shown in Table 7.63, it is found that the 'Muslim' community is majority to disagree that the Mauritian Public is doing a good job for the environment 43.4%, followed the 'Hindu' community (37.5%). Greatest agreement was expressed by the 'general population' community (33.7%) in respect of this stakeholder.

7.3.2.1.4 NGOs

In respect of NGOs, only one demographic variable has a significant difference as per the chi-square test, namely, location.

- NGOs*LOCATION

		NGOs					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	5.0	12.3	34.4	39.4	8.9	100.0
	Rural	2.9	21.0	40.5	29.8	5.9	100.0
	Total	3.8	17.2	37.8	34.0	7.2	100.0

Table 7.64: Crosstab NGO'S*Location

(n=1000)

41% of the respondents agree that NGOs are doing a good job in respect of the environment. This opinion is greater amongst those living in the urban regions of Mauritius (48.3%) as compared to those living in the rural regions (35.7).

7.3.2.1.5 LARGE BUSINESSES OF MAURITIUS (LBz)

In respect of Large Businesses in Mauritius, only one demographic variable has a significant difference as per the chi-square test, namely, ‘Ethnic Group’.

- LARGE BUSINESSES OF MAURITIUS*ETHNIC GROUP

		LARGE BUSINESSES OF MAURITIUS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians	3.8	26.9	34.6	23.1	11.5	100.0
	General Population	10.6	21.2	41.3	22.1	4.8	100.0
	Hindu	10.4	29.4	29.2	27.2	3.9	100.0
	Muslim	6.4	37.4	32.0	20.6	3.6	100.0
	Total	9.1	30.7	31.4	24.7	4.1	100.0

*Table 7.65: Crosstab Large Businesses of Mauritius*Ethnic Group*

(n=1000)

In regards to Large Businesses in Mauritius, 39.8% of the respondents disagree that they are doing a good job for the environment. Ethnic-wise, majority are from the ‘Muslim’ community (43.8%) followed by the ‘Hindu’ (39.7%).

7.3.2.1.6 SMALL BUSINESSES OF MAURITIUS (SBz)

The chi-square test has screened four valid demographic variables across Small Businesses in Mauritius, namely, 'occupational groups', 'Location', 'Educational Background' and 'Ethnic Group'

- SMALL BUSINESSES OF MAURITIUS*OCCUPATIONAL GROUPS

		SMALL BUSINESSES OF MAURITIUS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
OCCUPATIONAL GROUP	A	-	75.0	18.8	6.3	-	100.0
	B	5.9	35.3	41.2	11.8	5.9	100.0
	C	11.1	42.2	35.6	8.9	2.2	100.0
	D	10.3	41.0	25.6	17.9	5.1	100.0
	E	11.4	30.0	34.3	18.6	5.7	100.0
	F	5.9	17.6	35.3	41.2	-	100.0
	G	6.1	28.6	33.7	25.5	6.1	100.0
	H	4.3	30.1	40.9	22.6	2.2	100.0
	I	11.5	33.6	35.4	18.6	0.9	100.0
	J	16.0	24.0	40.0	6.0	14.0	100.0
	K	7.3	28.4	37.5	22.0	4.7	100.0
	L	11.3	37.9	30.6	19.4	0.8	100.0
	M	15.1	45.3	19.8	16.3	3.5	100.0
	Total	9.4	33.5	33.9	19.3	3.9	100.0

*Table 7.66: Crosstab Small Businesses of Mauritius*Occupational Groups*

(n=1000)

Out of the 42.9% of the respondents who disagreed in respect of small businesses doing a good job for the environment, 75% are 'Legislators, Senior Officials & Managers (A). The highest level of agreement has been expressed by the 'Skilled agricultural and fishery workers' (F) (41.2%).

- SMALL BUSINESSES OF MAURITIUS*LOCATION

		SMALL BUSINESSES OF MAURITIUS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
LOCATION	Urban	9.6	28.5	35.8	19.8	6.4	100.0
	Rural	9.3	37.4	32.4	18.9	2.0	100.0
	Total	9.4	33.5	33.9	19.3	3.9	100.0

*Table 7.67: Crosstab Small Businesses of Mauritius*Location*

(n=1000)

Location-wise, the respondents living in the urban regions of Mauritius are more agreeable (26.2%) than those living in the rural regions (20.9%) that Small Businesses in Mauritius are doing a good job for the environment.

- SMALL BUSINESSES OF MAURITIUS*EDUCATIONAL BACKGROUND

		SMALL BUSINESSES OF MAURITIUS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
EDUCATIONAL BACKGROUND	No Schooling	21.4	25.0	42.9	10.7		100.0
	Primary	8.5	30.3	33.6	23.2	4.4	100.0
	School Certificate	8.4	30.2	36.8	19.6	5.0	100.0
	Higher School Certificate	12.6	37.1	27.4	18.9	4.0	100.0
	Vocational Training	10.3	25.6	38.5	23.1	2.6	100.0
	Diploma	7.8	37.3	35.3	17.6	2.0	100.0
	Degree	6.8	51.1	35.2	5.7	1.1	100.0
	Other	7.4	37.0	22.2	29.6	3.7	100.0
	Total	9.4	33.5	33.9	19.3	3.9	100.0

*Table 7.68: Crosstab Small Businesses of Mauritius*Educational Background*

(n=1000)

'Degree' holders (58.0%) do not agree the small businesses are doing a good job for the environment. It has been found that those with 'primary schooling' are most agreeable about this stakeholder and the environment (27.7%) followed closely by those with 'vocational training' (25.6%) and those with 'S.C' (24.6%).

- SMALL BUSINESSES OF MAURITIUS*ETHNIC GROUP

		SMALL BUSINESSES OF MAURITIUS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians	3.8	26.9	38.5	19.2	11.5	100.0
	General Population	8.7	20.2	39.4	24.0	7.7	100.0
	Hindu	10.9	33.6	32.1	20.0	3.4	100.0
	Muslim	7.1	38.8	35.2	16.0	2.8	100.0
	Total	9.4	33.5	33.9	19.3	3.9	100.0

*Table 7.69: Crosstab Small Businesses of Mauritius*Educational Background*

(n=1000)

Across ‘ethnic group’, as depicted in Table 7.69, those respondents in the ‘General Population’ community are more agreeable about Small Businesses in Mauritius doing a good job for the environment (31.7%) followed closely by the ‘Sino-Mauritian’ community members (30.8%).

7.3.2.2 BELIEVABILITY OF CAUSE RELATED STATEMENTS

	How believable are efforts made by companies in Mauritius to protect the environment?	Mean Score	Standard Deviation	n=
Bel1	Have a company or its products endorsed by environmental cause or organisation	2.55	0.85	790
Bel2	Donating money to an environment cause or issue	2.49	0.93	821
Bel3	Saying that the company is educating the public to take action to help protect the environment through brochures, seminars, videos, or special events	2.63	0.94	864
Bel4	Saying that the company addresses environmental problems through all company policies, from manufacturing products to marketing	2.75	0.89	776
	Cronbach's alpha 0.7593			

Table 7.70: Believability of Cause Related Statements

	Very Believable	Somewhat Believable	Not Very Believable	Not at all Believable
Likert Scale	1	2	3	4

(note that all don't knows have been omitted in the analysis)

The respondents have rated all the four statements away from believability.

	Mean Score	Standard Deviation	n=
How believable are efforts made by companies in Mauritius to protect the environment?	2.97	0.78	896

Table 7.71: Believability of Cause Factor

(note that all don't knows have been omitted in the analysis)

	Very Believable	Somewhat Believable	Not Very Believable	Not at all Believable
Scale	1	2	3	4

In a nutshell a mean of 2.97 has been scored in respect of believability of company actions in favour of the environment. The chi-square test has been performed to screen valid independent demographic variables that to profile this construct. Table 7.49 below summarises the chi-square findings.

	Occupational groups		Gender		Age bracket		Location		Educational background		Monthly household income		Ethnic group	
	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level	Chi-square	p-level
Believe	34.74	0.53	6.72	0.08	12.95	0.37	31.87	0.00	30.47	0.08	32.84	0.00	21.92	0.00

*Table 7.72: Chi-square Believability*Demographic Variables*

(n=896)

7.3.2.2.1 BELIEVABILITY

Three independent variables have been accepted to profile the believability construct, namely, 'Location', 'Income' & 'Ethnic Group'.

- BELIEVABILITY*LOCATION

		BELIEVABILITY				
		Very Believable	Somewhat Believable	Not Very Believable	Not at all Believable	Total
		%	%	%	%	%
LOCATION	Urban	2.9	34.8	40.0	22.3	100.0
	Rural	0.6	21.1	46.5	31.8	100.0
	Total	1.7	27.3	43.5	27.5	100.0

*Table 7.73: Crosstab Believability*Location*

(n=896)

Only 29.0% of the respondents believe environmental cause related marketing company efforts. This belief is greater in the urban regions of Mauritius (3737%) than the rural regions (21.7).

- BELIEVABILITY *MONTHLY HOUSEHOLD INCOME

		BELIEVABILITY				
		Very Believable	Somewhat Believable	Not Very Believable	Not at all Believable	Total
		%	%	%	%	%
MONTHLY HOUSEHOLD INCOME	Less than 3,500	-	31.6	40.4	28.1	100.0
	Between 3,500 - 6,999	0.5	22.8	37.5	39.1	100.0
	Between 7,000 - 9,999	2.6	22.4	46.5	28.5	100.0
	Between 10,000 - 29,999	2.2	30.2	44.8	22.8	100.0
	Between 29,999 - 49,999	-	42.9	42.9	14.3	100.0
	50,000 or More	-	20.0	60.0	20.0	100.0
	Total	1.7	27.3	43.5	27.5	100.0

*Table 7.74: Crosstab Believability*Monthly Household Income*

(n=896)

As it can be depicted in Table 7.50 above, those with 'monthly household income' 'between 29,999-49,999' believe environmental cause related marketing company efforts more (42.9%) than the other income groups.

- BELIEVABILITY *ETHNIC GROUP

		BELIEVABILITY				
		Very Believable	Somewhat Believable	Not Very Believable	Not at all Believable	Total
		%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians	4.3	39.1	43.5	13.0	100.0
	General Population	2.0	25.5	53.1	19.4	100.0
	Hindu	2.1	30.4	40.8	26.8	100.0
	Muslim	0.4	20.4	45.7	33.5	100.0
	Total	1.7	27.3	43.5	27.5	100.0

*Table 7.75: Crosstab Believability*Monthly Household Income*

(n=896)

The ‘Sino-Mauritians’ are more prone to believe environmental cause related marketing company efforts than other ethnic groups (43.5%), followed by the ‘Hindu’ (32.5%), the ‘General Population’ (27.6%) and the ‘Muslim’ (20.8%).

7.4 FINDINGS 4: GREEN PRODUCTS

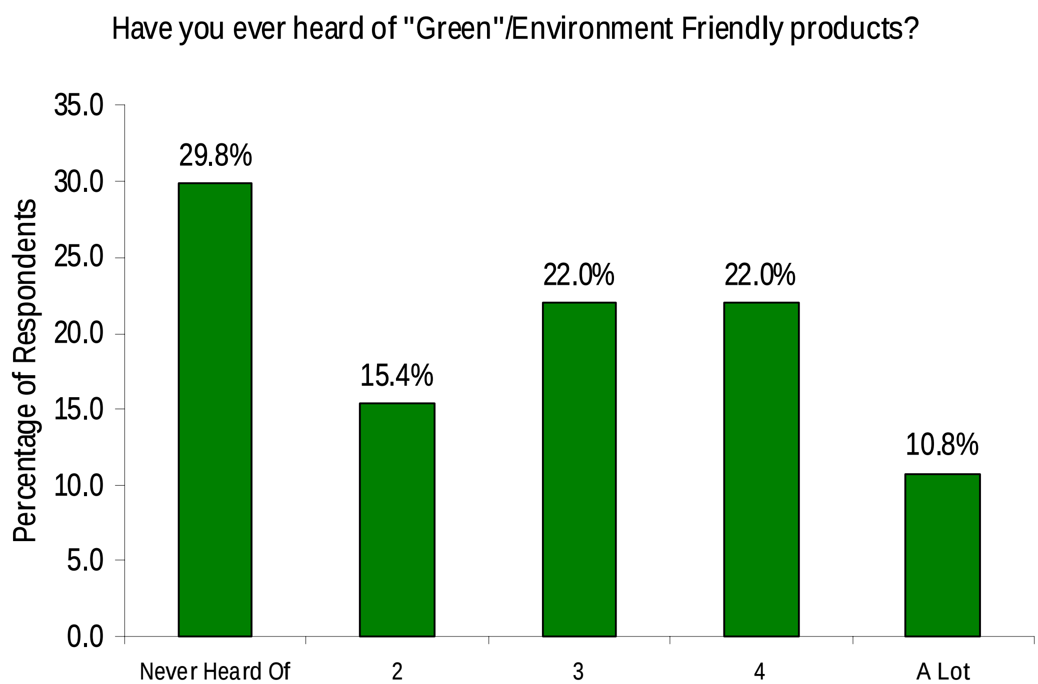


Figure 7.15: Awareness of green products

(n=702)

Only 10% of the respondents have heard of green products (n=702). The majority of the respondents with the awareness of green products in terms of occupational group are 'Legislators, senior officials and managers' (25.0%), gender are 'Male' (11.6%), age bracket are 'between 16 and 25' (14.7%), education are 'Degree' holders (25.0%), monthly household income are 'between 29,999-49,999' (20.4%) and ethnic group are 'general population '13.5%).

7.4.1 WHERE DID YOU HEAR ABOUT GREEN PRODUCTS

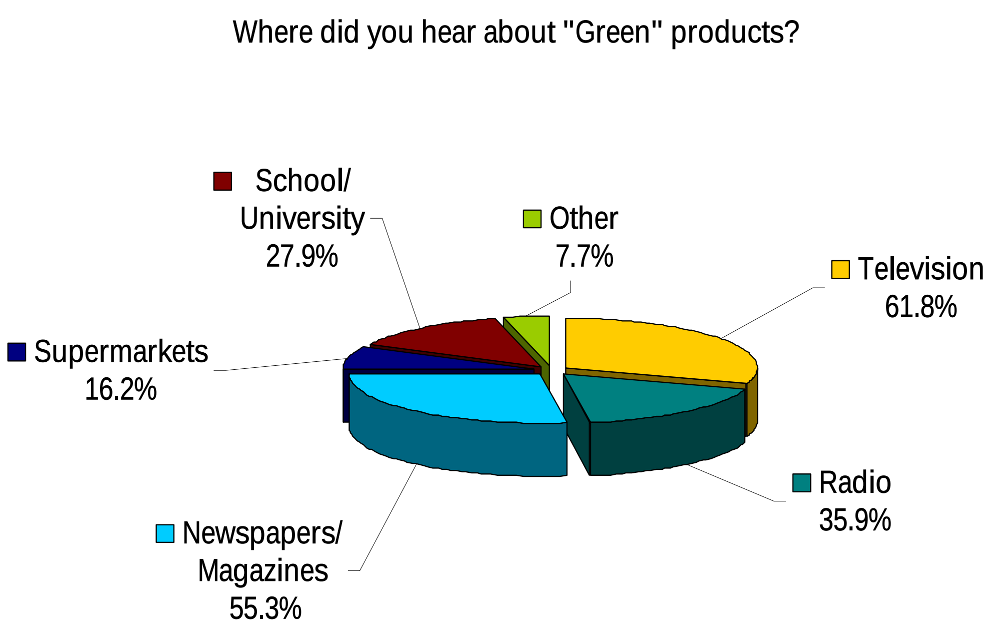


Figure 7.16: Where did you hear about 'Green" products?

(n=702)

Television has been stated as the prime source of information about green products (61.8%), followed by newspapers and magazines (55.3%), and Radio (35.9%) School/University (27.9%) and Supermarkets (16.2%).

		Television	Radio	Newspaper/ Magazines	Super markets	School/ University	Other	Total	n=
		%	%	%	%	%	%	%	
Have you ever heard of "Green"/Environment Friendly products?	2	37.1	14.7	29.4	5.6	8.6	4.6	100.0	197
	3	32.1	17.6	26.4	9.3	11.4	3.3	100.0	421
	4	29.1	19.0	27.3	7.1	14.3	3.2	100.0	495
	A Lot	25.2	16.9	25.8	8.9	18.5	4.6	100.0	325
	Total	30.2	17.5	27.0	7.9	13.6	3.8	100.0	

(note that the options were not mutually exclusive)

*Table 7.76: Awareness*Medium of Green Products*

	Never Heard of				A lot
Scale	1	2	3	4	5

Television and radio remains the most popular medium where the respondents have heard of green products a lot (25.2% and 25.8% respectively). Moreover, these two means are major across all the 4 level of awareness, implying that they have the greatest reach to make the Mauritian consumer aware of green products.

7.4.2 PREFERENCE FOR GREEN PRODUCTS

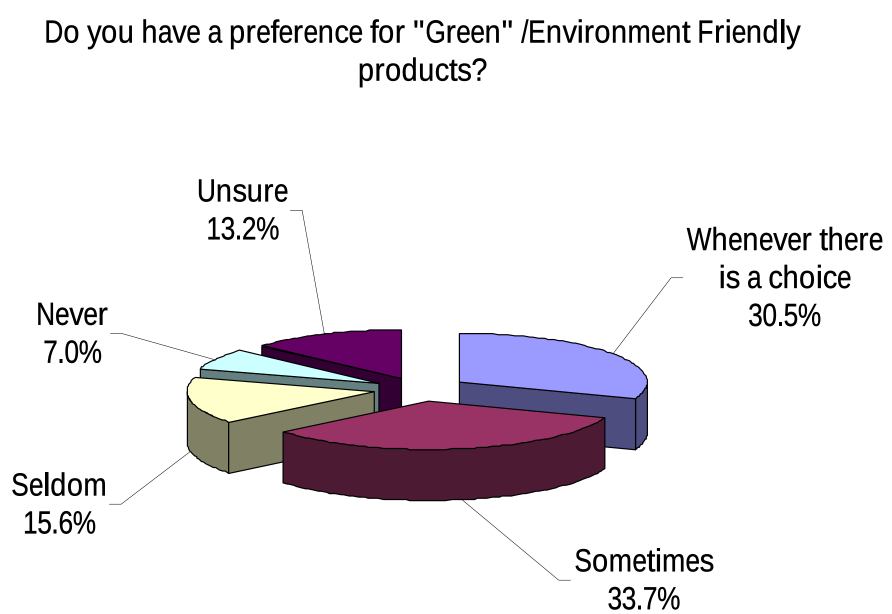


Figure 7.17: Preference for Green Products

(n=983)

	Whenever There is a Choice	Sometimes	Seldom	Never	Unsure
Scale	1	2	3	4	5

30.5% of the respondents acknowledge that 'whenever there is a choice', they will prefer green product and 33.7% only 'sometimes'.

7.5 ORGANIC PRODUCTS

		Only Organic 100%	75%/25%	Both Equally - 50%/50%	25%/75%	Only Non-Organic - 100%	Total	n=
What percentage (Organic or Non-Organic) of the following products do you use?	Vegetables	15.1	20.9	34.7	12.1	17.2	100.0	989
	Fruits	13.1	22.7	34.9	11.7	17.6	100.0	988
	Eggs	17.7	17.7	33.1	12.3	19.3	100.0	985
	Milk	13.7	18.4	33.4	16.1	18.4	100.0	988
	Cheese	10.0	17.6	34.4	17.1	20.8	100.0	987
	Bread	15.3	17.8	31.3	14.7	21.0	100.0	988
	Cereals	12.6	19.9	31.7	15.9	19.9	100.0	986
	Butter	8.5	17.9	33.7	18.6	21.3	100.0	985
	Average	*13.3*	*19.1*	*33.4*	*14.8*	*19.4*	*100*	*987*

Table 7.77: Organic v/s Non-organic Products

As it can be depicted from Table 7.54, on average, 19.4% of the respondents use 100% ‘only non-organic’ products as compared to an average of 13.3% for 100% ‘only organic’ products.

ORGANICALLY PRODUCED PRODUCTS….	Mean Score	Standard Deviation
…taste nice	3.25	1.54
…are healthy	3.33	1.60
…are expensive	3.08	1.51
…are easily available	2.56	1.44
…are associated with an alternative lifestyle	2.80	1.85
…have an attractive appearance	3.06	1.49
…are environmentally friendly	3.20	1.56

Table 7.78: Attributes of Organic Products

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

In addition, as it can be seen in Table 7.78, for the respondents, organically produced products are 'healthy' (mean=3.33, 'taste nice' (mean=3.25) and are 'environment friendly' (mean=3.20). However, the respondents are neutral (mean=2.80) in regards to the consumption of organically produced products being 'associated with an alternative lifestyle'.

	NEGATIVE STATEMENTS - ORGANIC PRODUCTS	Mean Score	Standard Deviation
1	I am not interested in organically produced products.	2.10	1.23
2	I am not satisfied with the variety of organically produced products offered by retailers.	2.80	1.44
3	I am so used to buying conventional products.	2.88	1.42
4	Supply for organically produced products is occasional only.	2.84	1.44
5	Organically produced products are no healthier than non-organic ones.	2.20	1.29
6	I have some doubts concerning the methods used for organically produced products.	2.91	1.46
7	Buying organically produced products doesn't make any difference to the environment.	2.33	1.38
8	All foods contain pesticide residues even if they are organically produced.	2.84	1.42
9	Conventional products have a better appearance and are fresher than organically produced products.	2.65	1.42
10	I don't have the time to visit several stores to find all the products I want to buy.	3.09	1.55
11	I don't think there is any taste difference between organically produced products and conventional ones.	2.27	1.31
12	Prices for organically produced products are too high.	3.06	1.57

Table 7.79: Negative statements about organic products

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

In addition, Table 7.79 depicts 12 negative statements in respect of organic products. The only two statements (10 & 12) on which the respondents tends to 'agree' are related to distribution and pricing.

7.6 FINDINGS 6: FACTOR DIMENSIONS OF GREEN CONSUMERS

7.6.1 LOGICAL CATEGORISATION OF ECCB VARIABLES

The Ecologically Conscious Consumer Behaviour Items (ECCB) were used to profile the Mauritan respondents as per their level of greenness. To this end, the first step was to logically categorise the 35 statements that were subject to a five point Likert rating. The aim of this first classification was to get a feel of the data before engaging into more rigorous statistical analysis.

	ECOLOGICALLY CONSCIOUS CONSUMER BEHAVIOUR ITEMS (ECCB)	Mean Score	Standard Deviation	n=
	Eco-Switch			
S6	When there is a choice, I always choose that product which contributes to the least amount of pollution.	3.61	0.93	974
S18	When I have a choice between two equal products, I always purchase the one which is less harmful to other people and the environment.	3.57	0.86	974
S9	I have switched products for ecological reasons.	2.98	0.99	973
S14	I have replaced light bulbs in my home with those of smaller wattage so that I will conserve on the electricity I use.	3.09	1.10	975

Table 7.80: Eco-Switch Statements.

Four statements in the ECCB items can be logically grouped as 'Eco-switch' statements. The respondents agreed that when given the opportunity to choose a product which contribute to the least to amount of pollution and less harmful to other people and the environment, they will do so (mean=3.61 and 3.57 respectively). However, both the other two other actual behaviour statements which related to past eco-switch actions were rated with a neutral score.

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Company Image			
S21	I will not buy a product if the company that sells it is ecologically irresponsible.	3.35	0.99	971

Table 7.81: Company Image Statement.

The respondents would not buy from an ecologically irresponsible company (mean=3.35)

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Active Contribution			
S34	I contribute money to environmental causes	3.01	1.08	974
S35	I volunteer for an environmental group	3.06	1.09	974

Table 7.82: Active Contribution Statements.

The respondents had a very neutral response in respect of active contribution to environmental causes and environmental groups (mean=3.01 and 3.06 respectively).

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Energy Consciousness			
S3	I try to buy energy efficient household appliances.	3.40	1.02	975
S4	I always try to use electric appliances (e.g. dishwasher, washer and dryer) before 9 a.m. and after 9 p.m.	2.52	1.00	976
S7	I have tried very hard to reduce the amount of electricity I use.	3.66	1.03	973
S22	I have purchased light bulbs that were more expensive but saved energy.	3.15	1.05	975
S1	To save energy, I drive my car as little as possible.	2.89	1.09	928
S24	To reduce our reliance on foreign oil, I drive my vehicle as little as possible.	2.77	1.00	941
S2	I normally make a conscious effort to limit my use of products that are made of or use scarce resources.	3.32	1.00	974

Table 7.83: Energy Conscious Statements.

Among the 7 ‘energy conscious’ statements, the highest rating were given to action in respect of reducing the amount of electricity consumption (mean=3.66), second was saving energy by using energy efficient household appliances (mean=3.40), and third, conscious efforts to limit the use of products that are made of or use scarce resources (mean=3.32).

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Eco-Action			
S8	If I understand the potential damage to the environment that some products can cause, I do not purchase these products.	3.60	0.94	973
S29	I read labels to see if contents are environmentally safe.	3.28	0.97	973
S15	I have purchased products because they cause less pollution.	3.17	0.99	972
S33	I take own bags to supermarket	2.80	1.15	976
S12	I use a low-phosphate detergent (or soap) for my laundry.	2.81	0.95	973
S16	I do not buy products in aerosol containers.	2.82	1.03	970

Table 7.84: Eco-Action Statements.

In respect of the 'eco-actions' that the respondents have taken because of their knowledge of the eco-outcome of their action, the mere understanding of the potential damage to the environment that some products can cause, would discourage purchase of these products (mean=3.60) and label are read to see if the product contents are environmentally safe (mean=3.28). However, the respondents disagreed to the action of taking their own bag to supermarkets (mean=2.80).

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Eco-Opinion Leader			
S13	I have convinced members of my family or friends not to buy some products which are harmful to the environment.	2.98	1.07	971

Table 7.85: Eco-Opinion Leader Statement.

A neutral response was voiced out in respect of being an eco-opinion leader (mean-2.98).

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Eco-Packaging			
S5	I will not buy products which have excessive packaging.	3.05	0.95	970
S17	Whenever possible, I buy products packaged in reusable containers.	3.18	0.96	975
S30	I buy products in packages that can be refilled	3.17	0.93	973

Table 7.86: Eco-Packaging Statements.

The three statements pertaining to 'eco-packaging' had all a mean which is greater than 3, implying that the respondents are conscious about the nuisance of excessive packaging.

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Eco-Pricing			
S25	I usually purchase the lowest priced product, regardless of its impact on society.	2.82	1.01	973
S26	In general, price is one of the most important factor in my purchasing decisions.	3.54	1.09	975
S27	In general, if a non-green product cost Rs 100, I will pay Rs 120 for a green product of the same kind.	3.22	0.97	970
S28	If I like something and I want to purchase it, price is not a concern.	3.08	1.15	976

Table 7.87: Eco-Pricing Statements.

In respect of the pricing element, the respondents are placidly agreeable about paying a higher price for green products (S27 & S28), and price is an important factor in their decision making process.

	ECOLOGICALLY CONCIOUS CONSUMER BEHAVIOUR ITEMS	Mean Score	Standard Deviation	n=
	Recycling			
S10	I use a recycling center or in some way recycle some of my household trash.	2.69	0.98	969
S11	I make every effort to buy paper products made from recycled paper.	2.81	0.97	969
S19	I buy toilet paper made from recycled paper.	2.96	0.96	972
S20	I buy paper towels made from recycled paper.	2.86	0.90	972
S23	I try only to buy products that can be recycled.	2.75	0.90	973
S31	I would like to take hazardous waste to collection site.	3.23	0.98	974
S32	Compost yard waste	3.17	0.99	971

Table 7.88: Recycling Statements.

Recycling! Almost all the statements related to this concept have been neutrally scored by the respondents. Only S31 and S32 have been scored with an agreement score (mean=3.23 & 3.17 respectively).

7.6.2 IDENTIFICATION OF GREEN MARKETING DIMENSIONS

Further study about the data from question E1 was carried out by using the Principal Component factor analysis with Varimax rotation in order to explore the different dimensions of the data in a more objective manner. Nine factors were extracted with the eigen value greater than one, accounting for 56.54% of the total variance in the data. To eliminate any discrepancy in the data, all of the missing values were replaced by the mean of the relevant statements on the analysis.

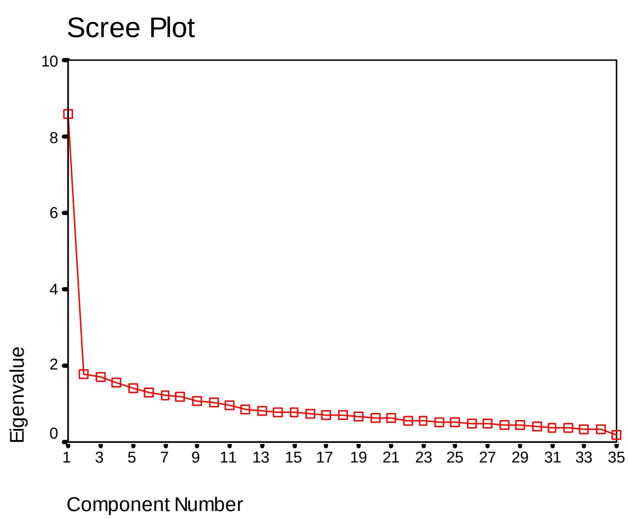


Figure 7.18: Scree Plot of ECCB Statements

Kaiser-Meyer Olkin's Measure of sampling adequacy is 0.900. Only the nine factor loadings, greater than 0.40 or more and explaining the greatest the factor as compared to other factors were included. According to the Varimax matrix, 34 out of 35 statements were retained by the 9 factors. Table 7.89 on the following page illustrates the related factor matrix with the factor loadings.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9
S1							0.7299		
S2			0.5618						
S3			0.6695						
S4	0.4073								
S5									
S6		0.6567							
S7		0.4839							
S8		0.6828							
S9		0.5279							
S10	0.6041								
S11	0.5385								
S12	0.5830								
S13	0.6129								
S14	0.4712								
S15	0.4728								
S16	0.4868								
S17			0.4755						
S18		0.4784							
S19				0.8349					
S20				0.8192					
S21		0.4367							
S22			0.4458						
S23	0.4340								
S24							0.8010		
S25									0.7468
S26									0.7309
S27								0.5205	
S28								0.5845	
S29								0.4603	
S30						0.4788			
S31						0.7812			
S32						0.7327			
S33					0.5652				
S34					0.7779				
S35					0.7929				

Table 7.89: Scree Plot of ECCB Statements

(n=1000)

FACTOR 1

Key Words: Opinion Leader, Recycle (2), Green Purchase, Packaging and Energy Conscious (2)

FACTOR NAME: Pure Green Militant Factors (Weighted Mean Score=2.85)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 1	8.706	24.875	S13	I have convinced members of my family or friends not to buy some products which are harmful to the environment.	0.6129
			S10	I use a recycling center or in some way recycle some of my household trash.	0.6041
			S12	I use a low-phosphate detergent (or soap) for my laundry.	0.5830
			S11	I make every effort to buy paper made from recycled paper.	0.5385
			S16	I do not buy products in aerosol containers.	0.4868
			S15	I have purchased products because they cause less pollution.	0.4728
			S14	I have replaced light bulbs in my home with those of smaller wattage so that I will conserve on the electricity I use.	0.4712
			S23	I try only to buy products that can be recycled.	0.4340
			S4	I always try to use electric appliances (e.g. dishwasher, washer and dryer) before 9 a.m. and after 9 p.m.	0.4073

Table 7.90: Pure Green Militant Factors

(n=1000)

The green militant factors have a weighted mean score of 2.85. Their main characteristics are that they are opinion leaders (factor loadings=61%) and very energy conscious (factor loadings=60%). Also, this dimension is characterised by giving importance to recycling, the use of environment friendly packaging and purchase of products that cause less pollution.

FACTOR 2

Key Words: Knowledge-action, Churning (2) and Company Image

FACTOR NAME: Combative Green Churning Factors (Weighted Mean Score=3.46)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 2	1.722	29.795	S8	If I understand the potential damage to the environment that some products can cause, I do not purchase these products.	0.6828
			S6	When there is a choice, I always choose that product which contributes to the least amount of pollution.	0.6567
			S9	I have switched products for ecological reasons.	0.5279
			S7	I have tried very hard to reduce the amount of electricity I use.	0.4839
			S18	When I have a choice between two equal products, I always purchase the one which is less harmful to other people and the environment.	0.4784
			S21	I will not buy a product if the company that sells it is ecologically irresponsible.	0.4367

Table 7.91: Combative Green Churning Factors

(n=1000)

The Combative Green Churning Factors (weighted average mean=3.46) are mainly characterised by their willingness to switch to green products. They will not buy from a company which is ecologically irresponsible and are ready to take actions in favour of green products if they are knowledgeable about them.

FACTOR 3

Key Words: Energy (2), Scarce Resources and Recycle Package

FACTOR NAME: Energy Reducers Recycluser Factors (Weighted Mean Score=3.26)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 3	1.672	34.572	S3	I try to buy energy efficient household appliances.	0.6695
			S2	I normally make a conscious effort to limit my use of products that are made of or use scarce resources.	0.5618
			S17	Whenever possible, I buy products packaged in reusable containers.	0.4755
			S22	I have purchased light bulbs that were more expensive but saved energy.	0.4458

Table 7.92: Energy Reducers Recycluser Factors

(n=1000)

Factor 3 has been tagged as Energy Reducers Recycluser Factor. This green dimension has as main characteristics the high degree of energy consciousness and also one statement pertaining to the use of recyclable packaging.

FACTOR 4

Key Words: Recycle Paper

FACTOR NAME: Paper Recycluser Factors (Weighted Mean Score=2.91)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 4	1.544	38.984	S19 S20	I buy toilet paper made from recycled paper. I buy paper towels made from recycled paper.	0.8349 0.8192

Table 7.93: Paper Recycluser Factors

(n=1000)

Two statements relating to the usage of recycled paper have been grouped under the same dimension. This dimension has been tagged as paper recycluser factors.

FACTOR 5

Key Words: Volunteer, Contribute and Bags

FACTOR NAME: Green Demonstrator Factors (Weighted Mean Score=2.96)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 5	1.383	42.936	S35	I volunteer for an environmental group	0.7929
			S34	I contribute money to environmental causes	0.7779
			S33	I take own bags to supermarket	0.5652

Table 7.94: Green Demonstrator Factors

(n=1000)

The Green Demonstrator Factors have as main characteristics the voluntary involvement in environmental groups (Factor Loading 79%) and contribution to environmental causes (Factor Loading 78%). Also, in this dimension, the respondents are more likely to take their own bags to supermarkets (Factor Loading 56%).

FACTOR 6

Key Word: Waste

FACTOR NAME: Waste Management Factors (Weighted Mean Score=3.18)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 6	1.266	46.554	S31	I would like to take hazardous waste to collection site.	0.7812
			S32	I try to compost yard waste	0.7327
			S30	I buy products in packages that can be refilled	0.4788

Table 7.95: Waste Management Factors

(n=1000)

The dimension presented in Table 7.95, Waste Management Factors, are highly characterized by the willingness to take hazardous waste to collection site (Factor Loading = 78%) and to try to compost yard waste (Factor Loading=73%). Also, another statement in this dimension relates to the purchase of products in packages that can be refilled (Factor Loading=48%).

FACTOR 7

Key Word: Energy

FACTOR NAME: Petrol Use Reducer Factors (Weighted Mean Score=2.84)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 7	1.208	50.004	S24	To reduce our reliance on foreign oil, I drive my vehicle as little as possible.	0.8010
			S1	To save energy, I drive my car as little as possible.	0.7299

Table 7.96: Petrol Use Reducers Factors

(n=1000)

Factor 7 has as main concern the energy efficient use of vehicle and the reduction of reliance on foreign oil. Hence the factor has been labelled as ‘Petrol Use Reducers Factors’.

FACTOR 8

Key Words: Price and Labels

FACTOR NAME: Green Price Forfeiter Factors (Weighted Mean Score=3.19)

	Initial Eigenvalues		Statements	
Factor	Total	Cumulative %		Factor Loading
Factor 8	1.179	53.372	S28 If I like something and I want to purchase it, price is not a concern. S27 In general, if a non-green product cost Rs 100, I will pay Rs 120 for a green product of the same kind. S29 I read labels to see if contents are environmentally safe.	0.5845 0.5205 0.4603

Table 7.96: Green Price Forfeiter Factors

(n=1000)

The Green Price Forfeiter Factors has as main characteristics the willingness to pay a higher price for green products. Also, they read labels to see if contents are environmentally safe.

FACTOR 9

Key Words: Price

FACTOR NAME: Price Supreme Factors (Weighted Mean Score=3.19)

	Initial Eigenvalues		Statements		
Factor	Total	Cumulative %			Factor Loading
Factor 9	1.108	56.538	S25	I usually purchase the lowest priced product, regardless of its impact on society.	0.7468
			S26	In general, price is one of the most important factor in my purchasing decisions.	0.7309

Table 7.98: Price Supremes Factors

(n=1000)

Factors 9 are characterised by the price conscious statements such as price being a determining factor in purchase and has been labeled as ‘Price Supreme Factors’.

7.7 FINDINGS 7: CLUSTER ANALYSIS TO SEGMENT THE RESPONDENTS

For the sake of segmenting the respondents in accordance with those core factors, the factor scores were inputted into the cluster procedure. The quick cluster procedure was performed. Two indicators were used to determine the approximate number of clusters, namely the icicle plot and the dendogram. A cutoff at 16 points in the dendogram showed that the appropriate number of clusters that can be generated from the data is five, explained by five clusters having more than one statement loaded into it.

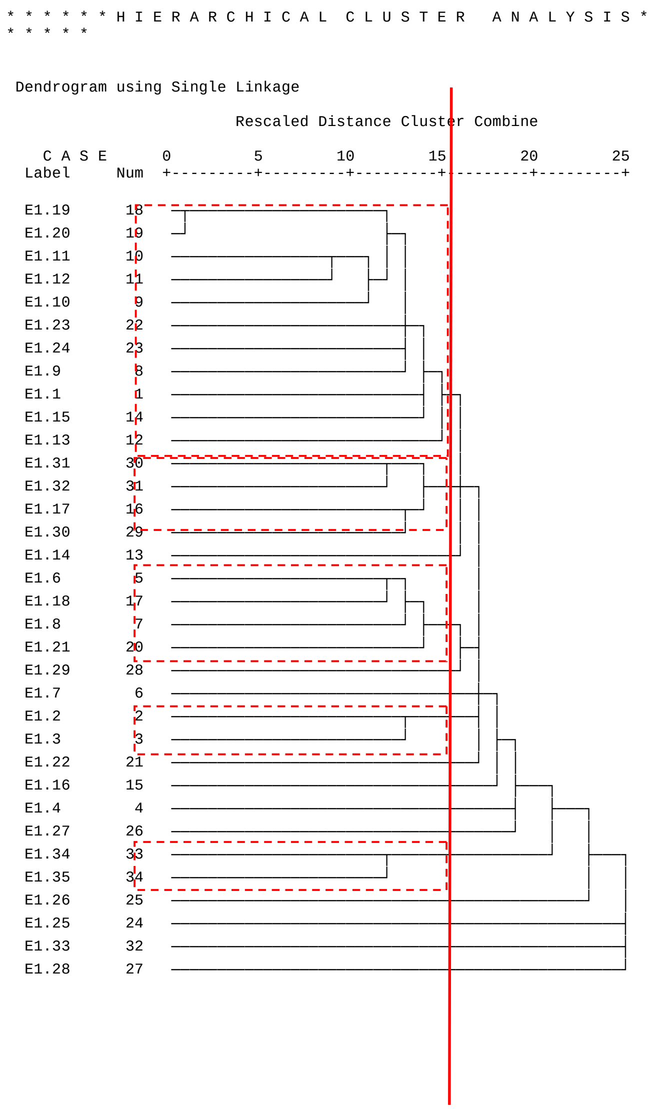


Figure 7.19: Dendogram

7.7.1 NUMBER OF CASES IN EACH CLUSTER

		Number of Cases in each Cluster	% of Cases in Each Cluster
Cluster	1	194	19.4
	2	134	13.4
	3	336	33.6
	4	220	22.0
	5	116	11.6
	Valid	1000	100
	Missing	0	0

Table 7.99: Number of cases in each Cluster

(n=1000)

Table 7.99 shows the number of cases in each cluster. In order to name these clusters the researcher has adopted a filter approach so as to define the cases in each cluster. For this, the 9 green dimensions previously defined have been loaded onto the 5 cluster cases. Table 7.100 overleaf summarises this finding.

	Cluster 1 n=194 Indifferent Greens	Cluster 2 n=134 Poor Greens	Cluster 3 n=336 Light Greens	Cluster 4 n=220 Moderate Greens	Cluster 5 n=116 Pure Green	Result of ANOVAS - F Ratio	Sig Level
Green Dimensions							
1. Pure Green Militant	2.09	2.63	2.86	3.15	3.83	454.19	0.00
2. Combative Green Churner	2.70	3.47	3.42	3.83	4.18	275.10	0.00
3. Energy Reducers Recycluser	2.47	2.89	3.24	3.78	4.07	289.42	0.00
4. Paper Recycluser	2.23	2.44	2.82	3.55	3.69	151.05	0.00
5. Green Demonstrator	2.39	2.63	3.02	3.12	3.80	77.95	0.00
6. Waste Manager	2.70	2.58	3.20	3.52	3.99	139.64	0.00
7. Petrol Use Reducer	2.41	2.45	2.85	2.86	3.95	89.36	0.00
8. Green Price Forfeiter	2.56	3.43	2.98	3.51	3.95	156.52	0.00
9. Price Supreme	3.09	2.79	3.48	2.83	3.62	43.36	0.00
Weighted Mean Scores Across Green Dimensions	2.51	2.81	3.09	3.35	3.90		

Table 7.100: Compared mean of Green Dimensions with each Cluster

(n=1000)

The mean plot of the findings of Table 7.99 is graphically represented in Figure 7.20 overleaf.

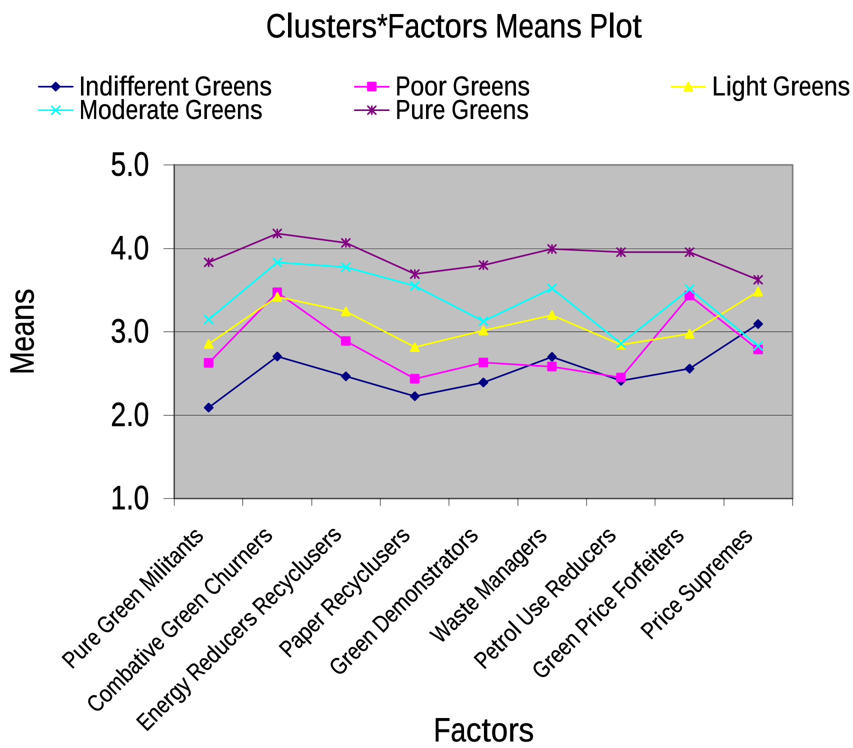


*Figure 7.20: Mean Plot of Green Clusters*Factors*

(n=1000)

In order to test the reliability of this classification, discriminant analysis was carried out to find the optimal number and accuracy of the classification in the previous test. A correct classification score of 88.0% was found implying a high degree of internal consistency for the five clusters.

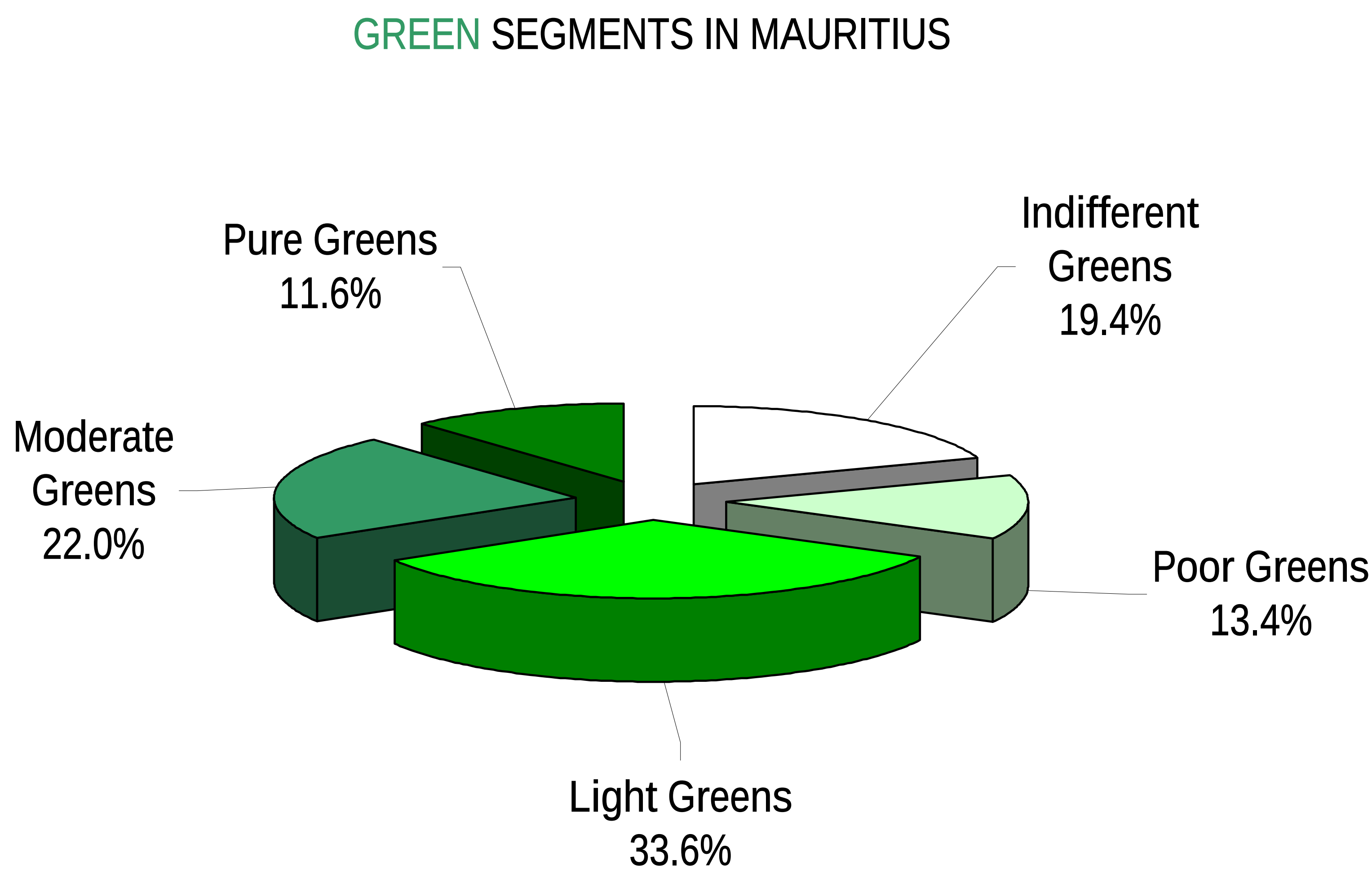


Figure 7.21: Green Segments in Mauritius

(n=1000)

7.7.2 CHARACTERISTICS OF THE GREEN SEGMENTS

CLUSTER 1: INDIFFERENT GREENS

The Indifferent Greens have scored high in on the 'price supreme' dimension (compared mean=3.09). This segment represents represent 19.4% of the total market. This segment is not green at all as all the compared means with the 9 green dimensions are low (between 2.09 – 2.70) and the average weighted mean score across the green dimensions is 2.51.

CLUSTER 2: POOR GREENS

13.4% of the respondents have been clustered as 'poor greens'. Although the weighted mean score across the green dimensions for this segment is only 2.81, it has two green dimensions with a compared mean which are greater than the neutral compared mean (3), namely, Combative Green Churner Factors (compared mean=3.47) and 'Green Price Forfeiters' (compared mean=3.43). Hence, this segment although poorly green, are willing to switch to green products and are also ready to pay a higher price for green products. Also, this segment is less prone to be opinion leaders and energy conscious.

CLUSTER 3: LIGHT GREENS

The largest segment is the 'Light Greens' segment with a percentage of 33.6% represents a potential market with light green consumers categorised with a weighted mean score across the green dimensions of 3.09. Five of the nine green dimensions have a compared mean above then neutral score, namely, price supreme (3.48), combative green churner (3.42), energy user recycluer (3.24), waste manager (3.20), and green demonstrators (3.02). Hence, although this segment has a much greener potential that the last segment has a greater market potential, the most important concern of this segment is the pricing element of the green products. And price is more important than the environment.

CLUSTER 4: MODERATE GREENS

22.0% of the respondents have been clustered in the 'moderate green' category. This segment has a weighted mean score across the green dimensions of 3.35. Seven out of the nine green dimensions across the moderate greens have a compared mean greater than 3. The only two green dimensions along which they score a low compared mean are 'petrol use reducers' and 'price supremes', that is, this segment is less green in respect of vehicle fuel and interestingly price is not its main concern.

CLUSTER 5: PURE GREENS

The greenest segment in Mauritius has a market potential of only 11.6%. Although a small segment in terms of size, the members in this segment are very green conscious. A stronger compared mean in respect of two variables helps in explaining the main characteristics of this segment, namely, 'combative green churners (4.18) and 'energy reducer recycluers' (4.07).

7.7.3 PROFILING OF THE CLUSTERS

Two bases have been used to attempt to profile the green segments, namely, demographic variable and psychographic variables.

7.7.3.1 DEMOGRAPHIC PROFILING OF THE GREEN SEGMENTS

	Green Segments	
Demographic Variables	Chi Square	P Value
Occupational Group	63.27	0.07
Gender	1.79	0.77
Age Bracket	16.77	0.40
Location	18.41	0.00
Educational Background	32.49	0.25
Monthly Household Income	41.73	0.00
Ethnic Group	35.38	0.00

Table 7.101: Demographic Profiling The Green Segments

(n=1000)

Referring to Table 7.100 above, there are only three demographic variables out of seven which are significant ($p<0.05$), namely, 'Location', 'Monthly Household Income' and "Ethnic Group'.

7.7.3.1.1 GREEN SEGMENTS ACROSS LOCATION

		Green Segments					
		Indifferent Greens	Poor Greens	Light Greens	Moderate Greens	Pure Greens	Total
		%	%	%	%	%	%
LOCATION	Urban	37.6	59.7	44.6	40.9	39.7	43.9
	Rural	62.4	40.3	55.4	59.1	60.3	56.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0

*Table 7.102: Crosstab Green Segments*Location*

(n=1000)

- INDIFFERENT GREENS

62.4% of the Indifferent Greens are located in the rural areas of Mauritius as compared to only 37.6% who are in the urban areas.

- POOR GREENS

Only 40.3% of the Poor Greens are in the rural areas of Mauritius. More than half are located in the urban areas, that is, 59.7%.

- LIGHT GREENS

In respect of the Light Greens, 44.6% are in the urban area while 55.4% are in the rural areas.

- MODERATE GREENS

40.9% of the Moderate Greens are in the urban areas while 59.1% are in the rural areas.

- PURE GREENS

Only 39.7% of the Pure Greens are located in the urban areas while the majority (60.3%) are in the rural areas.

7.7.3.1.2 GREEN SEGMENTS ACROSS MONTHLY HOUSEHOLD INCOME

		GREEN SEGMENTS					
		Indifferent Greens	Poor Greens	Light Greens	Moderate Greens	Pure Greens	Total
		%	%	%	%	%	%
MONTHLY HOUSEHOLD INCOME	Less than 3,500	10.8	2.2	9.2	5.9	3.4	7.2
	Between 3,500 - 6,999	20.1	23.9	23.5	16.8	12.1	20.1
	Between 7,000 - 9,999	23.7	26.1	24.7	26.8	25.9	25.3
	Between 10,000 - 29,999	40.2	35.1	38.1	43.2	53.4	41.0
	Between 29,999 - 49,999	4.6	9.7	3.9	5.9	5.2	5.4
	50,000 or More	0.5	3.0	0.6	1.4		1.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0

*Table 7.103: Crosstab Green Segments*Montly Household Income*

(n=1000)

Across all the five segments, the majority of the members of the segment are within the monthly household income bracket between 10,000 and 29,999 rupees. In fact, this income bracket represents the majority of the respondents.

7.7.3.1.3 GREEN SEGMENTS ACROSS ETHNIC GROUP

		GREEN SEGMENTS					
		Indifferent Greens	Poor Greens	Light Greens	Moderate Greens	Pure Greens	Total
		%	%	%	%	%	%
ETHNIC GROUP	Sino-Mauritians	3.1	3.0	2.7	3.2		2.6
	General Population	13.4	10.4	11.0	8.2	7.8	10.4
	Hindu	59.3	45.5	54.2	66.8	72.4	58.9
	Muslim	24.2	41.0	32.1	21.8	19.8	28.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0

*Table 7.104: Crosstab Green Segments*Ethnic Group*

(n=1000)

Across all the five segments, ethnic-wise, the majority of the respondents are within the Hindu ethnic group followed by the Muslim ethnic group.

7.7.3.2 PSYCHOGRAPHIC PROFILING OF THE GREEN SEGMENTS

	Green Segments	
Psychographic Variables	F Ratio	P Value
Impulse Buying	1.49	0.20
Opinion Leader	8.81	0.00
Interest in Products	9.43	0.00
Brand Loyalty	17.08	0.00
Care in Shopping	13.39	0.00

Table 7.105: Psychographic Profiling of the Green Segments

(n=1000)

Out of the five psychographic variables that have been developed in Findings 2 of this analysis, four variables are significant across the green segments, namely, opinion leader, interest in products, brand loyalty and care in shopping.

7.7.3.2.1 OPINION LEADER ACROSS GREEN SEGMENTS

		OPINION LEADER					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GREEN SEGMENTS	Indifferent Greens	3.1	27.8	43.8	23.7	1.5	100.0
	Poor Greens	4.5	22.4	49.3	22.4	1.5	100.0
	Light Greens	2.4	17.9	47.3	31.5	0.9	100.0
	Moderate Greens	1.4	17.7	48.6	28.6	3.6	100.0
	Pure Greens		12.9	40.5	36.2	10.3	100.0
	Total	2.3	19.8	46.4	28.7	2.8	100.0

*Table 7.106: Crosstab Opinion Leader*Green Determinants*

(n=1000)

- INDIFFERENT GREENS

30.9% (3.1% + 27.8%) of the indifferent greens tend to disagree about being an opinon leader as compared to 25.2% who agree.

- POOR GREENS

In respect of the poor greens, they also tend to disagree about being opinion leaders (26.9%: 23.9%).

- LIGHT GREENS

32.4% of the light greens agree to be opinion leaders as compared to only 20.3% who disagree.

- MODERATE GREENS

For the moderate greens the members of this segment also tend to be more agreeable with this psychographic variable.

- PURE GREENS

For the pure greens, they even more agreeable with the opinion leader variable (46.5% : 12.9%)

Hence, the greener the consumer, the more the latter has as psychographics an opinion leader attitude.

7.7.3.2.2 INTEREST IN PRODUCTS ACROSS GREEN SERMENTS

		INTEREST IN PRODUCTS					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GREEN SEGMENTS	Indifferent Greens	1.5	19.6	56.7	20.6	1.5	100.0
	Poor Greens	1.5	13.4	66.4	18.7	-	100.0
	Light Greens	1.5	19.0	51.8	26.5	1.2	100.0
	Moderate Greens	-	16.4	51.4	30.9	1.4	100.0
	Pure Greens	0.9	5.2	49.1	35.3	9.5	100.0
	Total	1.1	16.2	54.3	26.3	2.1	100

*Table 7.107: Crosstab Interest in Products*Green Segments*

(n=1000)

In respect of the interest in products variable, the same observation as that of the opinion leader variable can be drawn, that is, as the level of greenness increases, the agreement in respect of interest in products increases.

7.7.3.2.3 BRAND LOYALTY ACROSS GREEN SEGMENTS

		BRAND LOYALTY					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GREEN SEGMENTS	Indifferent Greens	2.1	21.1	44.8	27.8	4.1	100.0
	Poor Greens	2.2	6.0	32.8	51.5	7.5	100.0
	Light Greens	1.2	19.3	47.3	29.2	3.0	100.0
	Moderate Greens	0.9	8.6	50.9	35.0	4.5	100.0
	Pure Greens	0.9	6.0	31.9	44.8	16.4	100.0
	Total	1.4	14.0	43.9	35.0	5.7	100.0

*Table 7.108: Crosstab Brand Loyalty*Green Segments*

(n=1000)

Across the five segments, all the respondents are more agreeable in respect of the brand loyalty variable. However, for two segments, the degree of agreeability versus disagreeability is more than others, namely, poor greens (59.0% : 6.0%) and pure greens (61.2% : 6.0%).

7.7.3.2.4 CARE IN SHOPPING ACROSS GREEN SEGMENTS

		CARE IN SHOPPING					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GREEN SEGMENTS	Indifferent Greens	6.2	13.4	25.3	35.6	19.6	100.0
	Poor Greens	4.5	12.7	18.7	35.1	29.1	100.0
	Light Greens	0.6	9.2	22.3	46.4	21.4	100.0
	Moderate Greens	0.9	5.0	15.5	41.8	36.8	100.0
	Pure Greens	0.9	7.8	11.2	33.6	46.6	100.0
	Total	2.3	9.4	19.6	40.3	28.4	100.0

*Table 7.109: Crosstab Care in Shopping*Green Segments*

(n=1000)

Across all the five segments, the respondents are by far more agreeable than disagreeable with the care in shopping variable. Also, the greener the segment, the greater is the disparity.

7.7.3.3 PERCIEVED CONSUMER EFFECTIVENESS ITEMS

In addition, the researcher has collected information in respect of the perceived consumer effectiveness (PCE) of the respondents in regards to green consumption.

	PERCIEVED CONSUMER EFFECTIVENESS ITEMS (PCEI)	Mean Score	Standard Deviation
1	It is worthless for the individual consumer to do anything about pollution.	2.52	1.11
2	When I buy products, I try to consider how my use of them will affect the environment and other consumers.	3.23	0.92
3	Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do.	2.62	1.05
4	Each consumer's behavior can have a positive effect on society by purchasing products sold by socially responsible companies.	3.83	0.84
5	Buying 'green' will force companies to become more environmentally aware.	3.83	0.93
	Cronbach's Alpha 0.6030		

Table 7.110: Perceived Consumer Effectiveness Items

(n=1000)

The five statements (Cronbach's Alpha = 0.6030) have been grouped to explain the PCE construct. Note that statements 1 and 3 above have been reversed to test the reliability of the five PCEI items.

PERCIEVED CONSUMER EFFECTIVENESS ITEMS (PCEI)	Mean Score	Standard Deviation
	3.57	0.68

Table 7.111: The Perceived Consumer Effectiveness Factor

(n=1000)

The respondents tend to agree (mean = 3.57) with the PCEI factor, meaning that they have a positive attitude about their effectiveness in doing something proactively about the environment.

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

	F ratio	P value
Perceived Consumer Effectiveness Factor	36.04	0.000

*Table 7.112: ANOVA of PCE Factor*Green Segments*

(n=1000)

In addition, ANOVA has revealed that there are significant differences in respect of the PCE factor across the green segments.

.7.3.3.1 PERCEIVED CONSUMER EFFECTIVENESS ACROSS GREEN SEGMENTS

		PERCEIVED CONSUMER EFFECTIVENESS FACTOR					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GREEN SEGMENTS	Indifferent Greens	0.5	8.2	58.8	29.4	3.1	100.0
	Poor Greens	-	1.5	39.6	53.7	5.2	100.0
	Light Greens	-	2.7	56.0	38.7	2.7	100.0
	Moderate Greens	-	1.8	23.6	59.1	15.5	100.0
	Pure Greens	-	1.7	22.4	64.7	11.2	100.0
	Total	0.1	3.3	43.3	46.4	6.9	100.0

*Table 7.113: Crosstab PCE Factor*Green Segments*

(n=1000)

It is interesting to note that the majority of all the five segments are more agreeable about being effective green consumers. In addition, the pure greens are more agreeable (75.9%) than the other segments.

7.7.3.4 ENVIRONMENTAL CONCERNED ITEMS

	ENVIRONMENTAL CONCERNED ITEMS (ECI)	Mean Score	Standard Deviation
1	Plants and animals exist primarily to be used by humans.	2.83	1.19
2	We are approaching the limit of the number of people the earth can support.	3.46	1.04
3	To maintain a healthy economy, we will have to develop a steady-state economy where industrial growth is controlled.	3.77	1.49
4	The earth is like a spaceship with only limited room and resources.	3.69	0.99
5	Humans need not adapt to the natural environment because they can remake it to suit their needs.	2.83	1.12
6	There are limits to growth beyond which our industrialized society cannot expand.	3.62	0.93
7	The balance of nature is very delicate and easily upset.	4.11	0.87
8	When humans interfere with nature, it often produces disastrous consequences.	3.89	0.89
9	Humans must live in harmony with nature in order to survive.	4.14	0.81
10	Mankind is severely abusing the environment.	3.96	0.93
11	Humans have the right to modify the natural environment to suit their needs.	2.67	1.17
12	Mankind was created to rule over the rest of nature.	2.55	1.21
	Cronbach's Alpha 0.7252		

Table 7.114: Environmental Concerned Items

(n=1000)

The twelve statements (Cronbach's Alpha = 0.7252) have been grouped to explain the EC construct.

ENVIRONMENTAL CONCERNED FACTOR	Mean Score	Standard Deviation
	3.64	0.48

Table 7.115: EC Factor

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The respondents tend to agree (mean = 3.64) with the EC factor.

	F ratio	P value
Environmental Concerned Factor	9.63	0.000

Table 7.116:ANOVA of PCE Factor*Green Segments

(n=1000)

In addition, ANOVA has revealed that there are significant differences in respect of the EC factor across the green segments.

7.7.3.3.1 ENVIRONMENTAL CONCERNED FACTOR ACROSS GREEN SEGMENTS

		ENVIRONMENTAL CONCERNED FACTOR					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GREEN SEGMENTS	Indifferent Greens	2.6	-	58.8	37.6	1.0	100.0
	Poor Greens	-	-	40.3	59.0	0.7	100.0
	Light Greens	-	-	44.9	55.1	-	100.0
	Moderate Greens	0.5	-	38.2	60.9	0.5	100.0
	Pure Greens	--	-	31.0	68.1	0.9	100.0
	Total	0.6	-	43.9	55.0	0.5	100.0

*Table 7.116: Crosstab Environmental Concerned Factors*Green Segments*

(n=1000)

All the segments are by far more agreeable with the environmental concern factor. Again, the pure greens are more agreeable (68.1%) than the other segments in respect of being environmentally concerned.

7.7.3.5 LIBERALISM ITEMS

	LIBERALISM ITEMS	Mean Score	Standard Deviation
1	The government should control the profits of the big industries.	3.63	1.08
2	If unemployment is high, the government should spend to create jobs.	4.30	0.77
3	A government administered health insurance program is necessary to insure that everyone receives adequate medical care.	4.20	0.86
4	I am for less government regulation of business.	2.97	1.09
5	I am for revising the tax structure so that the burden falls more heavily on corporations and persons with large incomes.	3.93	1.00
	Cronbach's Alpha 0.5045		

Table 7.118: Liberalism Items

(n=1000)

The five statements (Cronbach's Alpha = 0.5045) have been grouped to explain the Liberalism construct.

LIBERALISM FACTOR	Mean Score	Standard Deviation
	3.83	0.62

Table 7.119: Liberalism Factor

(n=1000)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Likert Scale	1	2	3	4	5

The respondents tend to agree (mean = 3.64) with the EC factor.

	F ratio	P value
Environmental Concerned Factor	8.20	0.000

Table 7.120: Environmental Concerned Factor

(n=1000)

In addition, ANOVA has revealed that there are significant differences in respect of the Liberalism factor across the green segments (F=8.20, P=0.00).

7.7.3.5.1 LIBERALISM FACTOR ACROSS GREEN SEGMENTS

		LIBERALISM FACTOR					
		Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Total
		%	%	%	%	%	%
GREEN SEGMENTS	Indifferent Greens		4.6	32.5	54.6	8.2	100.0
	Poor Greens		0.7	26.1	67.2	6.0	100.0
	Light Greens	0.3	1.8	31.0	57.1	9.8	100.0
	Moderate Greens	0.5		25.5	66.8	7.3	100.0
	Pure Greens			15.5	69.8	14.7	100.0
	Total	0.2	1.6	27.6	61.6	9.0	100.0

*Table 7.121: Crosstab Liberalism Factor*Green Segments*

(n=1000)

The greener the segments the more liberal are the respondents. This might imply that the greener the respondents the more they believe that businesses must be given the responsibility to drive the green movement.

7.7.3.7 PRODUCT TYPE

For further investigation of the green consumers' profile, the respondents were asked to choose the likelihood (in percentage) to purchase green products from a list of product categories: batteries, electronic products, drinks, food, clothes, spray, paper, pen, correction fluid, newspaper, books and paint. A 10% unit scale was used where 0% = 'No Chance', 20% 'Slight Possibility" and so forth until 100% = 'Certain' purchase of green products.

	Mean Score	Standard Deviation
Food	7.7	2.8
Drinks	7.5	2.8
Newspaper	6.7	3.1
Clothes	6.7	2.9
Paper	6.4	2.9
Books	6.4	3.1
Pen	5.9	3.0
Electronic products	5.8	2.9
Paint	5.7	3.3
Sprays (e.g hair sprays or gel)	5.6	3.1
Correction Fluid	5.5	3.2
Battery	5.3	3.0

Table 7.122: Likelihood to buy the green products

(n=1000)

Food (mean=7.7) and Drinks (7.5) are the products for which the respondents are more likely to look for a green option.

In addition, the respondents were asked to state their frequency of purchase of these products along a scale where 1=Today, 2=Yesterday, 3=Within Last Week, 4=Within Last Month, 5=Within Last Three Month, 6=Half Year or More and 7=Never Purchased. 7 has been treated as a missing value in the analysis.

	Mean	Std. Deviation	n=
Electronic products	4.8	1.3	959
Books	4.5	1.4	892
Correction Fluid	4.4	1.5	707
Sprays (e.g hair sprays or gel)	4.1	1.3	785
Battery	4.0	1.3	900
Pen	3.9	1.4	940
Paper	3.8	1.5	910
Clothes	3.5	1.2	998
Newspaper	2.3	1.4	923
Drinks	1.9	1.0	995
Food	1.7	1.0	996

Table 7.123: Frequency of Purchase

Eventually, Food (mean=1.7) and Drinks (mean=1.9) are the consumed more frequently than the other products. The least frequently purchased product is Electric Products.

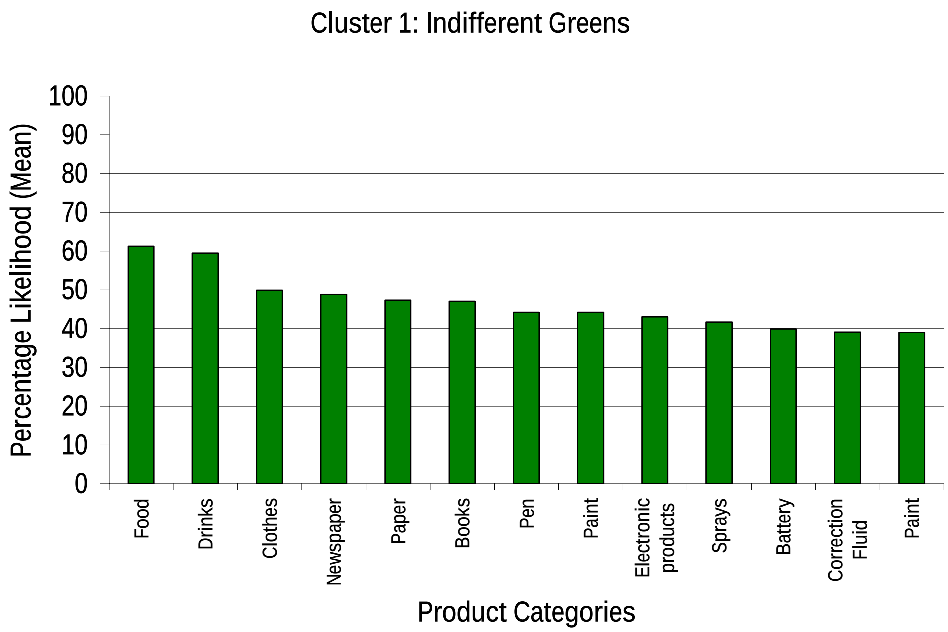


*Figure 7.22: Likelihood to purchase*Indifferent Greens*

(n=1000)

The indifferent greens are most likely to purchase food and drinks (around 60%) than other products. The products which they are less likely to look for a green option are paint (39%) and correction fluid (39%).

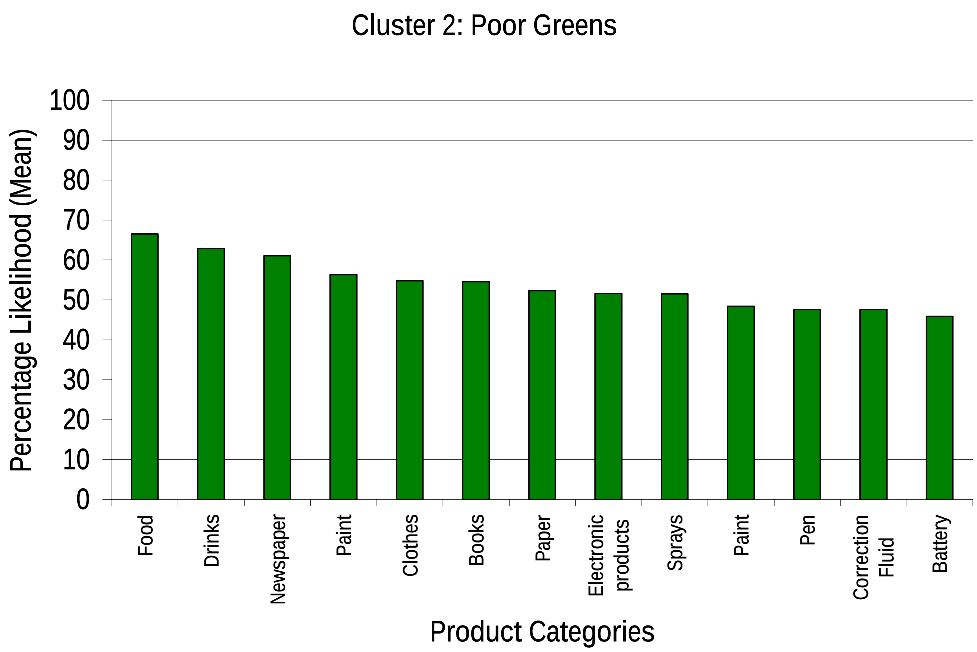


*Figure 7.23: Likelihood to purchase*Poor Greens*

(n=1000)

There is a good possibility (between 60% and 65%) that the poor greens buy food and drinks and newspapers in green option. The products that they are least likely to buy a green option are battery, correction fluid, pen and paint.

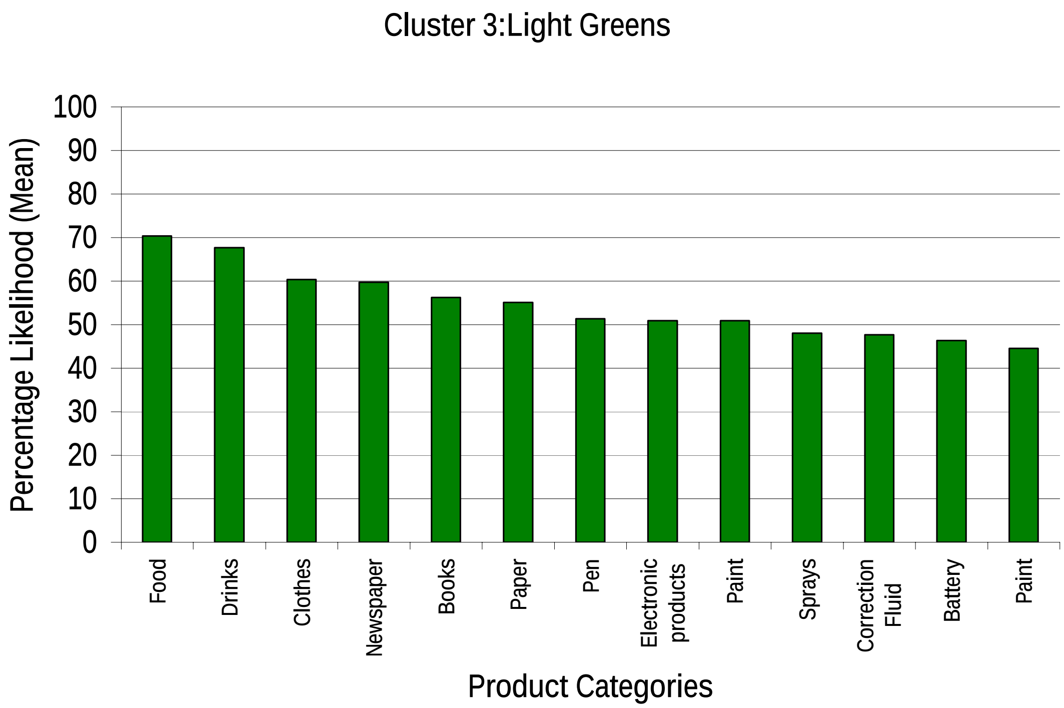


*Figure 7.24: Likelihood to purchase*Light Greens*

(n=1000)

Even for the light greens, the choice of the green option goes for food and drinks. However, the possibility is greater than the poor green segment.

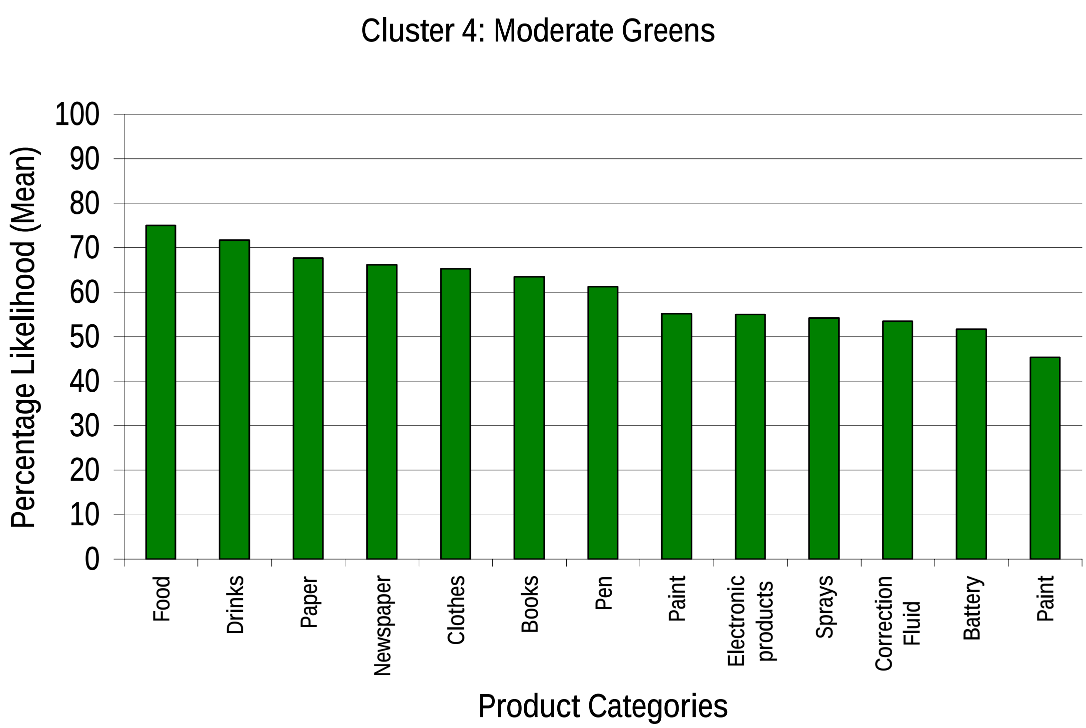


*Figure 7.25: Likelihood to purchase*Moderate Greens*

(n=1000)

The only product which the moderate segment has a slight possibility to purchase a green version is paint. All the other product categories have at least a good possibility of being purchased in a green version.

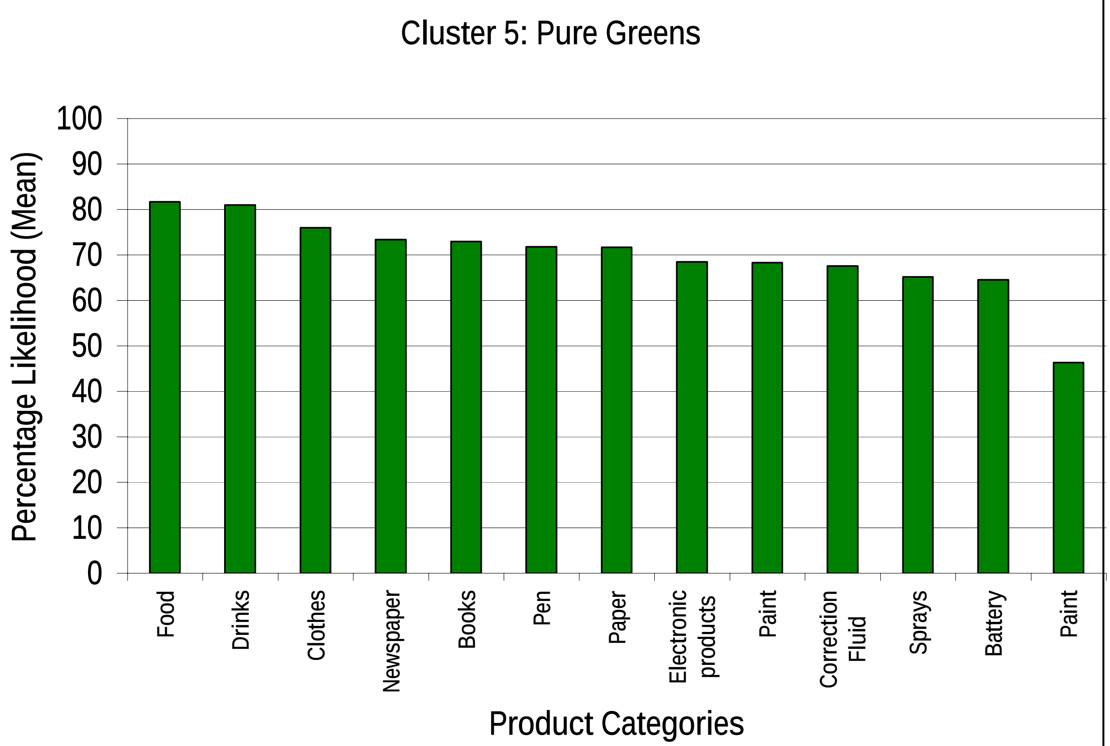


*Figure 7.26: Likelihood to purchase*Pure Greens*

(n=1000)

In respect of the likelihood to purchase green products, the pure greens have a high possibility of doing so for almost all the product categories as depicted in Figure 2.28 above. The only product category with a low level of likelihood, however, still remains paint even for this greener segment.

7.8 CONCLUSION

The segmentation of the Mauritian consumers has been successfully attained in this analysis. An attempt has also been made to profile the different green segments in respect of demographic variables and psychographic variables. In line with the existing literature on green marketing it has been confirmed that psychographic variables are more relevant in profiling green segments. The findings in this analysis will be very useful in developing future green marketing strategies for marketers in Mauritius and in other developing countries.

CHAPTER Eight

SUGGESTIONS AND RECOMMENDATIONS

8.0 INTRODUCTION

This chapter highlights the limitation of the present study and suggests directions for further research. In addition, suggestions and recommendations are presented with reference to the findings from the focus group discussions, that is, the business perspective and from the findings of the national survey, that is the consumer perspective. An attempt is made to propose the necessary marketing strategies that marketing managers might adopt to be in line with the green movement.

8.1 SUGGESTIONS AND RECOMMENDATIONS

8.1.1 FOCUS GROUP ON GREEN CONCERNS AMONG MAURITIAN COMPANIES

Survey results indicate that Mauritian executives are of the opinion that environmental concerns play a fundamental role in modern companies (mean=4.68 on a scale of 5). But there is an increasing need for businesses to emphasise on green marketing concerns in their mission statements. Green efforts must also prove to be economically viable for companies to engage in green marketing activities.

8.1.2 RESPONSIBILITIES TOWARDS GREEN MARKETING PRACTICES IN MAURITIUS

Green Marketing remains the responsibility of the main stakeholders – consumers, the business and the government. The results show that a serious effort to green up a company's image can yield long-term and even global benefits.

8.1.3 PACKAGING ISSUES, LEGISLATRIONS, GREEN MARKETING PRACTICES

Increasing attention is being paid to packaging, a component of product in the marketing mix. It is being recognized that packaging is important not only from a functional viewpoint, but also in terms of marketing to the customer. One of the constraints on packaging is environmental issues. These are becoming increasingly important internationally, from both a legislative and consumer perspective. In this study the perceptions of the members of the packaging value chain as regards the functional, marketing and environmental issues surrounding packaging are examined. It is found that functional aspects appear to be the most important, followed by marketing aspects.

8.1.4 GREEN PROFILING AND SEGMENTATION OF THE MAURITIAN BUYERS

The study also provides a method of profiling and segmenting of buyers based upon ecologically conscious consumer behavior. Findings indicate that, despite a significant amount of past research attention, demographic criteria are not as useful a profiling method as psychographic criteria. Consistent with past findings, the study indicates that perceived consumer effectiveness (PCE) provides the greatest insight into ecologically conscious consumer behavior. Further, the inclusion of altruism to the profile appears to add significantly to past efforts. Additional constructs examined suggest that environmental segmentation alternatives are more stable than past profiles that have relied primarily on demographic criteria.

The survey results urge the need to identify members of the population who are likely to be concerned about environmental issues. The main green cluster have been identified as the Pure Greens, the Moderate Greens, the Light Greens, the Poor Greens and the Indifferent Greens. 33.6% of the Mauritian Buyers are 'Light Greens", that is, with with a high potential for moving into an upper level in the green hierarchy. The challenge that is faced now is to instituationalise good systems and procedures that can facilitate the fast transformation of the Mauritian market into a green one. It is important to create awareness among consumers that there are alternatives and that even small contributions that involve little sacrifice actually make a difference. A debate on the roles of and responsibilities of the various stakeholders and interested parties as well as the right structure and guidelines for the eco-labels is a necessary first step to address the above challenge. Who will bell the cat now?

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.1.5 GREEN PRICING STRATEGY

Green products are likely to be more expensive than non-conventional ones. Since the purchasing power of the Mauritian buyers is low as compared to developed countries, green pricing strategy can prove to be to the detriment of the environment. Studies need to be conducted to investigate upon the trade-off which Mauritian buyers are likely to do to purchase green products at higher prices.

8.1.6 CONSUMER ASSOCIATIONS IN MAURITIUS AND GREEN SENSITISATION CAMPAIGNS

The findings depict that there is a need to sensitise the Mauritian population on green marketing practices on a continuous basis. In this respect the consumer associations in Mauritius have been playing a passive role in sound environmental marketing behaviour. There is a need for Consumer Associations to initiate more rigorous actions towards the implementation of green marketing practices.

8.1.7 ROLE OF GOVERNMENT TOWARDS GREENING PRACTICES

If companies of Mauritius succeed in attracting green-oriented consumers, they will have to continue working to keep them. To provide good environmental products and sound

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nvironmental messages, the Government of Mauritius must play an active role. Government should invest heavily in recycling plants, waste water management and sensitise the population on general issues about environmental problems and the need to cater for environmental concerns. The use of green bins must be encouraged by Local Councils (Municipalities & District Council) of Mauritius. The government is also urged to make green products tax free so as to encourage green promotion. Investment in green marketing activities should be facilitated.

8.1.8 ATTITUDE TOWARDS ADVERTISING

The study results suggest that persons interested in buying green are skeptical about advertising in general. The findings tentatively suggest that green consumers are more receptive to T.V advertising rather than print advertising in Mauritius. Respondents both from rural and urban areas and belonging to the 'General Population' ethnic-wise showed a positive relationship between green buying and preference for T.V advertising over magazine as an entertainment source. Second, the green consumer finds T.V to be an information-seeking devise where concrete information easily and thoroughly than print media.

Another key issue in the successful marketing of green products is the substantiation of any environmental claim. A recognised verification made by an independent and credible body in Mauritius would assist in the process.

.1.9 GREEN COMMUNICATION STRATEGY

In many instances, the environmentally damaging aspect of a product as technical in nature (e.g mercury on batteries or phosphate in washing powders), consumers need to be educated on the hazards of using such products and the benefits of using their green equivalents. Thus communication is another key factor to the marketing of the marketing of green products.

Several researchers have suggested that a primary objective for marketers is to get consumers who are highly concerned about the environment to act upon their concerns (Ellen, Wiener, and Cobb-Walgren 1991). The results of this study suggest that appeals can be developed which are persuasive to consumers with both high and low levels of involvement with the environment. Thus, it may not be necessary to develop separate advertising campaigns to target different segments of consumers. While more research is needed to assess the generalizability of these findings, the present work suggests that opportunities exist for advertisers to implement successful green appeal campaigns.

8.1.10 ENVIRONMENTAL CONSUMERISM

Consumer beliefs predicted not only all behavioral measures of environmental consumerism but all environmental attitudes as well: Participants with specific beliefs about the environmental impact of the purchase and use of consumer products were also likely to hold p

roenvironment attitudes. For instance, people who attached importance to the purchase of products made with recyclable materials or packaged in reusable containers were more likely to care about the quality of the environment and the wise stewardship of natural resources.

Women were found to be more likely than men to be environmental advocates. This finding is consistent with other recent research findings that women tend to be more concerned than men about environmental matters (e.g., Mohai, 1992; Stem, Dietz, & Kalof, 1993). When shopping, women were also more likely than men to consider environmental issues in their purchases. Possibly the women in our study did more of the grocery shopping and as a consequence were more aware of the environmental issues surrounding various products. In addition, women were more likely than men to recycle different types of materials. Women and men were equally likely, however, to attempt to conserve natural resources, to take part in political or organizational activities for environmental reasons, and to consider safety to the environment when buying a product.

8.1.11 DEMOGRAPHIC PROFILING AND GREEN BEHAVIOUR

Age, income, and education were not related to any of the attitudinal statements and were not significant enough to profile the green segments. This lack of significance is consistent with a growing body of research indicating a "demographic shift" in the nature of the environmentally concerned public (e.g., Howell & Laska, 1992). In comparison with earlier decades, recent events and media attention have expanded the number of environmentally

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ware Americans to include a wider range of social and economic backgrounds. Thus, demographic characteristics that formerly predicted environmental concern are no longer closely associated with it.

Conceivable reasons that the respondents' proenvironment consumerism lagged behind their attitudes may include inadequate availability, labeling, and marketing of environmentally beneficial products, as well as higher prices for some of them. These considerations suggest that environmental consumerism can be increased by strengthening proenvironment consumer beliefs, by improving structural factors (availability, labeling, and affordability of environmentally friendly products), or by both. Many businesses have begun to stress "green marketing," but so far very little empirical research has been done on environmental consumerism. Because the sum of production and marketing decisions by manufacturers and buying decisions by consumers can have a strong effect on environmental quality, this area deserves greatly increased attention by researchers and environmental activists.

8.1.12 STRATEGIC ENVIRONMENTAL MARKETING FOCUS DEVELOPMENT (ECO-STRATEGIC CHANGE MANAGEMENT CONCEPT)

Just like any integrated marketing communication approach, green marketing must involve extensive coordination across functional areas to be effective. The level of greening--strategic, quasi-strategic, or tactical-dictates exactly what activities should be undertaken. Strategic greening in one area may or may not be leveraged effectively in others. A firm could make substantial changes in production processes but opt not to leverage them by

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ositioning itself as an environmental leader. So although strategic greening is not necessarily strategically integrated into all marketing activities, it is nevertheless strategic in the product area.

First, greening production processes often results in improved resource efficiencies, thus lowering the firm's cost structure and improving its competitive position. Second, going green enables the firm to differentiate itself by offering new products in new markets and/or offering additional benefits for current products; this may improve its value proposition to the customer and allow it to tap into new customer segments, enhance customer loyalty, and raise profitability--in other words, improve its relative position in the marketplace. Third, the firm can treat the process as an opportunity for corporate self-renewal. However, minimal efforts, especially empty ones seen as green washing, are apt to fail and may even put the firm at a competitive disadvantage in the market.

To realize these strategic benefits requires an innovative firm with the will to question the very basis of what and how it operates. Innovative companies choosing to adopt a strategic environmental marketing focus need to continually re-evaluate and improve their overall performance. This is necessary because knowledge and acceptable environmental practices are continually changing. With strategic green marketing, there is no room for complacency. Such a focus requires extensive commitment of resources and top-management support, which may be difficult to maintain, especially in times of broader turbulence in the business environment.

Hefty's overzealous tactical green promotion overshadowed its well-meaning green marketing activities, resulting in financial loss and lowered corporate credibility. Its case

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ghlights the complex nature of the environmental issues associated with green marketing, a nature that requires a firm to progress with green marketing implementation only after it has carefully considered all potential ramifications in a holistic, integrated fashion. This clearly typifies Peattie's view that green activities, in and of themselves, do not make a company environmentally oriented. The loss of consumer confidence in Hefty could well have been predicted.

Real, lasting, eco-strategic change happens from within. The firm incorporates input from external stimuli, and may even be motivated to act by external events. But to be effective at a strategic level, it must internalize concern for the environment as part of the corporate modus operandi. This is crucial, and requires a long-term view. Failure to internalize that mindset across all functional areas will most likely result in lost consumer confidence and firms turning away from greening activities.

Companies expecting short-term results may be less committed to making the necessary process and organizational adjustments needed to achieve substantive change. Thus, they will be less likely to maintain a strategic approach to green marketing. Like any worthwhile strategic corporate activity requiring a change in corporate thinking, green marketing takes time, commitment, and resources before meaningful results are achieved.

8.1.13 CORPORATE ENVIRONMENTALISM AND ADOPTING AN ENVIROPRENEURIAL APPROACH TO MARKETING

Corporate environmentalism is an imperative for business, and companies that go green should have a first-mover advantage over those that do not--although it is a continuous rather than a onetime process of renewal that improves a firm's environmental and financial performance.

To this end, companies may wish to consider adopting the enviropreneurial approach to marketing, "blending environmental concerns with marketing strategy in search of innovations and opportunities" (Peattie 1999b). By seeing these new situations as opportunities, firms can strive to maximize them and provide improved competitive advantage at the expense of competitors that either overlook such opportunities or view them as threats.

8.1.14 GREEN MANAGEMENT CONCEPT IN MAURITIAN ENTERPRISES

Companies, like organisms, face a constant need to adapt according to fundamental changes in the ecosystems they inhabit. Just as physical ecosystems select the best adapted organisms for survival and the least adapted for extinction, the "business

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cosystem" confronts managers with pressures to conform to structural shifts in the business climate in order to survive and thrive

For the adaptive manager seeking to address the demands of the green revolution, green management must be pervasive; environmental imperatives and opportunities cover all dimensions of corporate operations. The reasons for going green show up everywhere in the management of the corporation. With respect to the managerial goal of efficiency, pollution prevention provides a variety of opportunities to limit costs and maximize the quantity of production for any given input. Pollution prevention reduces the need for raw materials and energy. Low-bulk production and packaging not only reduce the need for raw materials and energy, but also reduce waste disposal and transport costs. Smaller product scale further reduces storage costs and allows superior inventory management. Some of the inputs that were traditionally purchased can be substituted through recovery, recycling and reuse. To the extent that recovery leads to new marketable substitutes for virgin material, a company may find new opportunities to diversify production toward the growing market in waste exchange.

Production output can be enhanced through greater quality control and containment in productive processes. And while pollution-prevention technology and services come at a price, the manager may find a number of opportunities to share the costs (in cooperation) with other companies or with public agencies. Furthermore, a voluntary environmental strategy promises to be more cost-effective and managerially compatible than one that is forced upon a company.

In the competition for markets, managers will be forced to keep up with the present structural shift in consumption preferences toward green products. Production and marketing must be configured to the growing wave of green consumption. This will not only allow managers to maintain present markets; green innovations and product differentiation may lead to the all-important attainment of new markets (i.e., new green product niches). It is an important signpost of the pervasiveness of the environmental revolution's impact on business that a product's appeal is tied to the overall environmental record of its producer. Hence, it will take more than green marketing and the production of specific goods to maintain markets. Managers are marketing more than a product, they are marketing a company. Moreover, given the growth of environmental regulation, managers will be as concerned with keeping their products acceptable to public authorities as they are with green consumer appeal.

8.1.15 STAYING AHEAD OF GREEN ENVIRONMENTAL LEGISLATION

Managers will also be increasingly forced to adapt to the rapid pace of environmental legislation and enforcement. No well-managed company will be without a comprehensive environmental risk program. In fact, such a program must now occupy the very highest priority in any general managerial strategy. Not keeping up with the wave of green law will expose laggards to devastating consequences, something no responsible manager should tolerate.

Staying one step ahead of evolving green legislation may even lead to opportunities to dominate markets when laws change, a nice complement to the opportunities of dominating n

ew niches through product differentiation. Managers will also have to adapt to green pressures that present themselves in vertical relations with suppliers and distributors, as well as in complementarities in production. Managers of companies producing intermediate goods will have to be prepared to accommodate environmental pressures on their clients by producing greener inputs.

8.1.16 GREEN RETAILING CONCEPT

For producers of final goods, the pressures will be predominantly a function of the growing wave of green retailing. In the production of complementary goods, managers must keep up with and even anticipate environmental nuances in their principal complements. In these markets, a changing law or new retailing strategy may make an entire product line obsolete.

8.1.17 GREEN MARKETING AS A SOCIAL INVESTMENT

With respect to intra-industry relations, managers can benefit from the new and more robust opportunities for cooperation that the environmental challenge has created. But even more than responding to loopholes in regulation, managers are encouraged to take an industry-wide perspective, given that the reputation of any industry will reflect the performance of its least successful (i.e., least green-conscious) member.

With respect to the financial health of a company, managers will have to continue to adapt to

the exigencies of social investment. Sensitivity to the changing priorities among shareholders dictates a movement toward greener strategies. Financial management itself is greatly improved through environmentally sound strategies. It is increasingly the case that green companies are being deemed more credit-worthy. Furthermore, managers will enjoy far greater discretion in managing finances.

8.1.18 THE NEED TO REDESIGN THE NEED TO THE SALE PACKAGE BY COMPANIES

In the wake of environmental legislation and consumer demand for more environmentally friendly sales packaging many companies will be forced into a position of redesigning their sales packages. When it comes to this redesign, or developing a new sales package altogether, it is likely that the marketing function within the company will have the most influence in the decision. This is logical since the functions of the sales package are primarily marketing related. However, logistics may also have a role in selecting suppliers of packaging materials, and making proposals for packaging types and forms which reduce the amount of packaging materials as well as transport volume.

It seems reasonable to conclude that the future will see an increase in the development of sales packages which are more compatible with the environment. This will either be due to consumer pressure or, more likely, the EC Packaging Directive eventually being implemented as law. This would seem to be a logical direction from both a social and economic perspective. On the social side, there is little doubt that sales packaging is a problem for current and future generations.

Landfills are scarce, expensive and reaching saturation point. On the economic side, environmentally friendly sales packaging may offer a competitive advantage. As "green" marketing starts to permeate management thinking, proactive actions in sales packaging could provide a competitive advantage to the companies who are perceived as being at the forefront of this movement.

8.1.19 INTERNATIONAL STANDARD & MANAGEMENT PRACTICES

With the ISO 9000 quality management series and the pending adoption of the ISO 14000 TQEM standards, the ability to engage in global marketing is dependent on an organization's willingness to adopt international quality and environmental management practices. ISO 14000 provides a formal set of consistent international standards which integrate many of the emerging environmental and quality issues. In summary, the ISO 14000 standards formally integrate and codify many of the TQM, environmental marketing, and environmental policy concepts which have been previously developed.

Given the widespread, global adoption of the ISO 9000 quality standards, it is reasonable to assume ISO 14000 will be likewise embraced. ISO 14000 certification will allow firms to market globally without constraints due to environmental concerns and to promote its products as being eco-friendly to an increasing environmentally oriented international markets.

8.1.20 MARKETING OF ORGANIC PRODUCTS

Both consumers and managers have very positive attitudes toward organic produce. However, from the managers' point of view, limited demand and high prices were major concerns. On the other hand, consumers were primarily concerned by the limited availability.

In order to increase demand, considerable efforts are needed to increase availability and improve the distribution systems. Making organic produce an essential part of the product lines of conventional supermarkets will increase availability, thus improving distribution and reducing price differentials (Jolly et al. 1989). Furthermore, as more organic produce arrives in the marketplace, prices are likely to drop. More demand will lead to more supply and more competition, and, as a result, lower prices (Lindsley 1996).

8.1.21 PROMOTION OF ORGANIC PRODUCTS

Government policies related to the provision of market information to marketing decision-makers and consumers could also improve the performance of the organic marketing system (Hall et al. 1989). Promotional efforts will have to focus on 'educating' consumers on the relationship between organic produce, health and the environment. Lifestyles of Mauritian consumers are changing and, given the increased interest in nutrition and exercise, organic sensibility is likely to be well received by consumers.

8.1.22 GROWTH OF ORGANIC FAMILY AND GOVERNMENT SUPPORT

Furthermore, given managers' concern about the lack of production standards for organic produce, government legislation on standards and labelling would increase their willingness to stock such products. Governmental support, such as the assignment of special farming zones for organic produce, subsidies, and the reorganisation of the certification system will facilitate the growth of organic farming. Establishing comprehensive national standards will also help the export of organically produced products (Shapiro 1998; Sugarman 1997), thus providing new opportunities.

8.1.23 DEEPER COMMITMENT TO ENVIRONMENTAL/GREEN CONCERNS BY SERVICE ORGANISATIONS IN MAURITIUS

While some service organizations have already begun to respond to environmental concerns, there are vast benefits to be gained by a broader and deeper commitment to the environment by service organizations. However, three cautions are in order. First, the service economy comprises very diverse industries and organizations. Not all of them are equally capable of contributing to the preservation of the environmental because of their varied natures. For instance, services such as hotels or hospitals can be expected to have a greater environmental impact through the adoption of green practices than accounting or legal firms, as a result of their greater reliance on tangible components and resource dependent processes. Second, it is important to note that environmental trade-offs often

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xist when green practices are adopted. Third, the importance of delivering service quality to customers must never be forgotten in making green marketing changes. If customers believe that an environmental change has reduced the quality of the service they receive, they will seek new service providers. Fortunately, answers to such dilemmas may be possible in the near future as our abilities to perform life-cycle assessments for products and processes improve.

Despite the varied impact and potential trade-offs associated with the adoption of green practices, service industries represent a potentially major source of environmental preservation. A movement to reduce the ecological impact of service organizations can be expected to occur simply because the green initiative is likely to continue to spread (The Roper Organization, 1991). Further, it is likely that an increasing number of service organizations will recognize that going green may have a "bottom-line" payoff in terms of cost-control, added profitability and consumer attraction (Davis, 1991) and will pursue environmental practices for those reasons. Similar to the sharing of the total quality management philosophy and practices, it is not too far-fetched to expect that competitors and standard bearers, will openly share successful green practices, widespread greening of the service sector should emerge as service organizations become more aware of their potential to become green. Hopefully, this article can provide some impetus to that end.

8.2 CONCLUSION

This chapter has given many new insights into the future move that the main stakeholders, businesses, consumers and the government, must take for a greener Mauritius. However, the greening phenomenon is not static and it is highly recommended that the green movement be continuously studied and necessary strategies and tactics be adopted to cater for the intricacies of the Mauritian consumers and environment.

CHAPTER Nine

CONCLUSION

9.0 INTRODUCTION

As with many research projects, this one not only raised more questions than it answers, but also fails to pursue effectively all the possible dimensions of its own data. The areas for further research identified in this project will definitely give much more insight into the green movement in developing countries like Mauritius. However the research does give the marketer meaningful conclusions. In this study, the focus has been on identifying the opinion of two important stakeholder in the green movement, that is, businesses and consumers. This chapter concludes this study by highlighting the main findings from the focus groups conducted with Mauritian business people and the main findings from the consumer survey. Furthermore the directions of future research and main limitations of the project are outlined.

9.1 THE SUPPLY SIDE

The focus groups with business executives highlighted that the will to drive the green movement is present within the Mauritan entrepreneurs. However, there is a lack of government support. The environment is seen as being a very important element in conducting business today. It is recommended that businesses must push the green movement by adopting proactive green strategies. The green marketing vision must be embraced at all levels in the organisation. However, the responsibility for a greener tomorrow must be shouldered by all stakeholders.

Moreover, managers strongly believe that there is a need to segment the Mauritian consumers as per their level of greenness. The most relevant motive for businesses to go green is 'image enhancement' followed by 'corporate social responsibility'. In addition, the most common practice in respect of environmentally friendly activities among Mauritian companies is safe waste disposal, waste water management and use of recycled materials.

In respect of marketing strategies, green products are expected to cost more, there should be a trade off of product attributes to move from conventional products to greener products. Also, the managers believe that the packaging element of the green product is a very important element in the green movement. In respect of the use of paper bags, it is believed that this new practice will cause more harm than good in the long run. Furthermore managers are of the opinion that green labels must be related to the information needs of consumers and believe that green products will be more expensive to produce and distribute. Given that the buying power of the Mauritian consumers is low compared to developed countries, managers are of the opinion that Mauritians are not ready to spend on green products.

Green promotion should be actively undertaken by companies and the most effective means of promoting the use of green products is publicity and public relations. However, manufacturers must be very careful in using environmental claims. The use of false claims would be to the detriment of the green movement as they will make consumers skeptical.

In respect of distribution, managers are of the opinion that both a push and pull strategy have to be used by the marketer. According to the managers, the Mauritian consumers do not dispose of their waste in an environmentally friendly manner. In order to increase the awareness of the Mauritian consumers towards green, the managers suggest that the former must be educated from early childhood so that the future generation can be greener adults. However, the managers foresee that people in Mauritius will become more aware of the importance going green in the next 10 years. Also, the disposal of waste in Mauritius has to be reviewed. As regards to Mauritian companies are not willing to produce or use genetically modified products mainly because of their obligation towards consumers.

9.2 THE DEMAND SIDE

Marketing is a quest for the proactive identification and satisfaction of consumer needs. This study has helped to better understand that there is definitely a move towards the greening of the Mauritian consumers. Although only 11.6% of the Mauritians have been clustered a 'pure greens', the majority of are 'light greens' (36%). Hence there is a great potential for these consumers to be sensitized and increase the 'pure greens' segment size.

In respect of psychographic variables the respondents are not impulse buyers. However, they tend to be opinion leaders and have interest in products, are brand loyal and are careful in shopping. Also, as for advertising medium, the respondents agree that television is there primary form of entertainment.

The Mauritian consumers do not find any major improvement in the state of the environment in Mauritius in the next five years. The most serious environmental concerns for them are industrial air pollution, industrial water pollution, auto air pollution and pesticides on food. They are also of the opinion that the Ministry of Environment is doing a good job for the environment.

In respect of the awareness of green products, the majority of the respondents have never heard of green/environmental friendly products. However, television and radio has been stated as being the prime source of information about green products. Also, nearly one third of the respondents are of the opinion that they will prefer green products whenever they have a choice. In addition, only one fifth of the respondents use 100% organic products. These products are seen as being healthier and even taste nicer than conventional products. However, the respondents tended to disagree in respect of negative statements related to organic products.

Moreover the nine green dimensions identified have helped in understanding green marketing in Mauritius and provided information for the segmentation of the green buyers in Mauritius. In addition, as specified earlier, the Mauritian consumers have been classified by their level of greenness, that is, indifferent greens (19.4%), poor greens (13.4%), light greens (33.6%), moderate greens (22.0%) and pure greens (11.6%). An attempt to profile these green segments has revealed that psychographic variables are more appropriate to profiling than demographic variables. Also, in terms of product usage, all the segments are more likely to consume a greener version product in the food and drinks category. However, even being a chemical related product, paint is the least cited product for which the Mauritian consumer will buy a green option, again showing the lack on information/knowledge of the latter in terms of product contents.

9.3 LIMITATIONS OF THE STUDY & DIRECTIONS FOR FURTURE RESEARCH

The limitations of the present research provide anchors for future research. The research is generalisable only to the extent that the theoretical dimensions are captured in the study. During the focus group discussions with Mauritian executives, not all firms involved in environmental concerns had participated and hence only some industries and company effects have been controlled. Secondly, the study was limited to Mauritius only because of the researcher's interest in investigating specific concerns pertaining to the green context. If other cultural context within the Indian Ocean Island region or East African countries had been chosen, richer insights might have been generated and cross cultural studies undertaken.

Furthermore, this study is cross-sectional in nature. While causality may in fact exist, the cross sectional nature of the study was to examine profiling opportunities among the consumers who represent the future of the green marketing movement. The sample was stratified sampling consisting of all Mauritians living the districts of Mauritius. Future research can focus on specific socio-economic groups to determine ecologically conscious consumer behaviour. Lastly, the measures used, while validated measures, were self reporting measures. Supporting these self reporting measures with observational or behavioral measures would strengthen the findings.

This study has investigated upon the green marketing mix and the use of green appeals. Further research should consider the effectiveness of green versus non-green appeals when the green product is more expensive than a regular product. More generally, work is needed t

o understand how consumers with varying levels of involvement with the environment (from Pure Greens to Indifferent Greens in the present study) make the trade off between environmental and performance attributes.

Several researchers have suggested that a primary objective for marketers is to get consumers who are highly concerned about the environment (Pure Greens) to act upon their concerns. The results of the present study suggest that appeals can be developed which are persuasive to consumer with both high and low levels of involvement. Thus it may not be necessary to develop separate campaigns to target different segments of consumers. Future research is needed to assess the generalisability of the findings and identify opportunities that exist to implement successful green appeal campaigns.

Other directions for future research can be explored. In Mauritius there are confusing environmental claims that have attracted the attention of regulators. No work has addressed the credibility of corporate green ads that attempt to portray an entire business as environmentally responsible. Corporate ads are much broader in scope than product ads and hence such scrutiny is essential.

Moreover, although the nature, design and content of green advertising have changed and evolved over the years, no effort has been made to trace trends in green advertising. Virtually no research has been done on the effectiveness of green advertising in Mauritius. How effective are current green appeals in communicating the environmental benefits of a product or service? What is the extent of consumer skepticism of green advertising? Such issues offer potential for future research contributions.

CHAPTER Nine

CONCLUSION

The current findings and the existing literature review suggest that additional work on green profiling and segmentation should focus on psychographic rather than more traditional and demographic methods. As the environmental movement continues to mature in Mauritius, it is important that segmentation criteria be periodically investigated to validate their use in light of changes taking place. Also in future avenues of research, additional attention should be devoted to identifying other psychographic variables useful in environmental profiling. Given the demonstrated usefulness of psychographic variables (opinion leader, interest in products, brand loyalty and care in shopping), it seems reasonable to spend at least as much effort on the more promising psychographic segmentation criteria.

With respect to the variables explored in the study, additional scale development work might find a more parsimonious set of items for measuring the various constructs. Through the scale used has some very appealing psychometric properties, it was somewhat cumbersome to administer due to its length. If a shorter version of the scale could be used, it would likely lead to more widespread use by both practitioners and academic researchers alike. This would also facilitate the expansion of results across future studies. Other studies should seek to develop more manageable scales for addressing the construct of interest, to refine segmentation criteria, to identify additional segmentation criteria and extend the findings to other islands within the Indian Ocean Region such as Rodrigues Island, Reunion, Seychelles and Comoros.

It is important to note that due to limited resources, the present study is only confined to Mauritius with 1000 respondents across the island. The result may not be representative of all the inhabitants of Mauritius and other neighbouring islands. Whilst it is believed that the present survey has contributed to a more in-depth understanding of the underlying factors accounting for the performance of eco-friendly purchasing acts in a developing economy such as Mauritius, the results so viewed is a foundation for more through follow-up research.

APPENDIX A

LIST OF FOCUS GROUP PARTICIPANTS

	Sector	Activity	Name	Designation	Company
1	*MANUFACTURING*	*Electrical machinery, apparatus, radio & tv equipment*	Mr Andre Chung Shui	General Manager	Happy World Marketing
2	*EDUCATION; HEALTH & SOCIAL WORK*	*Optician, other health and Social Work activities*	Mr Domah Dyehanund	Assistant Ashram Manager	Ghandi Breed Ashram
3	*EDUCATION; HEALTH & SOCIAL WORK*	*Sewage and refuse disposal, sanitary and similar activities*	Mr Vishal Radha	Executive Officer	Keep Clean ltd
4	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	Advertising	Tauheed Dramjaun	Strategic Planner	Cread
5	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	Computer and related activities	Bharati Kistoo	Trainee Engineer	ICTA
6	*MANUFACTURING*	*Basic and fabricated metals and machinery n.e.c*	Mr Fekna Swaraj	Director	Coopre2 Ltd
7	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Mr Steve Chan Chu	Irrigation Agronomist	Medine
8	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Jean Michel Rouillard	Manager	IBL Consumer Goods
9	*TRANSPORT, STORAGE & COMMUNICATIONS*	Post & Communication	Mrs Rosita Ng		Fedex
10	*W/SALE & R/TRADE AND REPAIR*		Mr Praveen Nagawa	Technical Manager	Leal Communication & Informatics
11	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Alain de Ravel	Director	Socitete Rolom ….. (salt Manufacturer)
12	*MANUFACTURING*	*Paper product, publishing and printing*	Mr Danny Chung	Production Manager	Cathay Printing Ltd
13	*CONSTRUCTION*		Sharvanand Ramkun	Site Manager	DWC
14	*EDUCATION; HEALTH & SOCIAL WORK*	*Sewage and refuse disposal, sanitary and similar activities*	Raj Essoo	Project & Marketing Manager	Atics Ltd (Waste Management)
15	*EDUCATION; HEALTH & SOCIAL WORK*	*Sewage and refuse disposal, sanitary and similar activities*	Mr Raj Ramlugon	Environment Consultant	Stam Ltd (Waste Mgt)
16	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	Computer and related activities	Ms Mokshda Gopee	Assistant Manager	SIT
17	*HOTELS & RESTAURANTS*	*Hotels and boarding houses*	Mr Anil Jhurry	Chief Engineer or General Manager	
18	*MANUFACTURING*	*Food Product, Beverages and tobacco*	M Sarjua	Director	Conserverie Sarjua Int
19	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Mr Gerard Wong Chong	Manager Broiler Operations	Happy World Foods Poultry
20	*MANUFACTURING*	*Paper product, publishing and printing*	Mr Francis Darifat	Directeur	Precigraph
21	*MANUFACTURING*	*Tanning and Dressing of leather and footwear*	Mr Suresh Santchurn	Director	Manisa Co Ltd (Footware)

22	*TRANSPORT, STORAGE & COMMUNICATIONS*		Vaidnath Dosieah	Quality Programme Coordinator	Mauritius Telecom
23	*W/SALE & R/TRADE AND REPAIR*		Thierry Sik Yuen	Director	Sik Yuen Supermarket
24	*MANUFACTURING*	*Recycling*	Mr Veekash Calleea	Director	Samlo (Recycling of Metals)
25	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	*NGo*	Pierre Baissac		MWF
26	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Eric Mamet		Creasim Ltee (cakes)
27	*MANUFACTURING*	*Textile and wearing apparel*	Jean Francois Henri	Production Manager	BB Dou
28	*MANUFACTURING*	*Chemicals and chemical products*	Shalonee Guness	Marketing Manager	Sofap Ltee
29	*MANUFACTURING*	*Medical optical instrument, watches and clocks*	Mr Reetoo	Manager	FCI Sud Ltee
30	*AGRICULTURE, HUNTING & FORESTRY*		Didier Defroberville	Project Manager	FUEL
31	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	Advertising	Cyril Palan	Managing Director	Logos Publicite
32	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	Insurance and pension funding except compulsory social security	Mr S.Parboteeah	Officer in Charge	Ceylinco Stella Ins Co Ltd
33	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Miss Aumeer	Traninee	Maurilait
34	*MANUFACTURING*	*Rubber and plastic products*	Teenarain Mareachealee	Managing Director	Explast Ltd (plastic bags)
35	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Ved Bhunjun	Assistant Agronome	Bel Vue Mauricia S/E
36	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Mr Rahim Bholah	Quality Manager	Happy World Foods Poultry
37	*HOTELS & RESTAURANTS*	*Hotels and boarding houses*	Mevin Seebah	Personal Manager	Le Meridien Plaza Beach Resort
38	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Mr Sonny Wong	Sales Manager	Happy World Foods
39	*EDUCATION; HEALTH & SOCIAL WORK*		Dr Mohee	Head of Department	UOM
40	*AGRICULTURE, HUNTING & FORESTRY*		Mr D.Gaya	Training Manager	Farmers Service Corporation
41	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	*NGO*	Mrs Bapoo-Dundoo	National Co-ordinator	UNDP GEF-SGP
42	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	Accounting & tax consultancy activities	Mr Dharamjeet Bucktowar	General Secretary	Mauritius Cooperative Union Ltd
43	*FINANCIAL INTERMEDIARIES;REAL ESTATE & BUSINESS ACT.*	Business and Management consultancy activities	Ah See Sing	Managing Director	Executive Services Ltd
44	*MANUFACTURING*	*Chemicals and chemical products*	Mr Anwar Kaidoo	Quality Manager	Mauvillac
45	*MANUFACTURING*	*Food Product, Beverages and tobacco*	Mr Sumodhee	Director	Boulanger Citadel

46	*MANUFACTURING*	*Chemicals and chemical products*	Michael Marie	Assistant Manager	Dynachem Ltd
47	*TRANSPORT, STORAGE & COMMUNICATIONS*		Mr Uday Raj Gujadhur	Ass Manager	Mauritius Bus Transport Ltd
48	*AGRICULTURE, HUNTING & FORESTRY*		Mr Hubert Daruty de Grandpree	General Manager	Cie de Mapou Ltee
49	*MANUFACTURING*	*Rubber and plastic products*	Mr Albert Gillette	Managing Director	Southern Noral Retreading Ltd
50	*MANUFACTURING*	*Rubber and plastic products*	Dominique Le Clezio	Director	Kalor Roto Moulder

APPENDIX B

QUESTIONNAIRE FOCUS GROUP

Introduction

FOCUS GROUP ON GREEN MARKETING PRACTICES IN MAURITIUS

I would like to thank you for having accepted the invitation to participate in this Focus Group which has been prepared in the context of a national study on Green Marketing Practices in an small island economy which is Mauritius. Please rest assured that all the information obtained from you in this Focus Group is going to be treated with strict confidentiality.

Please fill in this box.

Date		06	03	Time	16:00		17:00	
Main Activity of your Organisation	______________________________							

Definition of Main Concepts	The following main terms/concepts will be used in this research.
1. Green Research	Research which is related to the physical environment, for example, air, water and land.
2. Green Marketing	Green marketing is a holistic, integrated approach that continually revaluates how firms can achieve corporate objectives and meet consumer needs while minimizing long-term ecological harm.
3. Green Consumer	Any one whose purchase behaviour is influenced by environmental concerns.
4. Green Decision	Decision that is taken in favour of the environment.
5. Social Responsibility	The integration of social concerns in business decisions. For example, Mc Donalds, Coca Cola and Walt Disney.

Introduction (cont'd)

Objectives of the Focus Group	• Management's view of the key pressures that affect the firm's development of 'green' products and the firms' response to green pressure; • The firm's marketing objectives for 'green' products, their strategies, commitment to R&D and the firm's influence on the demand for green products. • Pricing, communication and promotion strategies for 'green' products. • Distribution concerns, particularly intermediaries' influence on making the firm's new green innovations to consumers • Management's perception of the barriers to future 'green' product uptake and diffusion in Mauritius.
The Focus Group	The Focus Group is planned to last for an estimated of one hour and in which you will have to answer multiple-choice questions and to open-ended ones. Any ideas and/or suggestions form your part is most welcome at any stage during this session. All questions should be answered in the context of the organisation/industry that you represent.

SECTION 1 - General Questions

Figure 1

1.1 *Have you ever seen this logo?*

Yes [1] No [2]

1.2 *If “Yes”, where?*

1.3 *What do you think of this Logo?*

SECTION 1 - General Questions (cont'd)

Do you think that the environment is an important element in today's business world?

Not Important at all				Very Important
1	2	3	4	5

1.4 Do you agree with the following statements?

		Strongly Disagree				Strongly Agree
1	Green businesses essentially are a reflection of green consumerism.	1	2	3	4	5
2	Green businesses are a product of public policies and regulation that compel businesses of all kinds to undergo "greening," or "ecological modernization"	1	2	3	4	5
3	Green businesses are largely a reflection of the firm or corporate worldview	1	2	3	4	5
4	"The 'green revolution' is about more than simply marketing products as green. It's about ensuring that those products genuinely are green; ensuring that the entire company is green. This process doesn't begin in the marketing department, it ends there."	1	2	3	4	5
5	For organizations to position green products, or communicate their environmental efforts, to members of the population who are likely to be concerned about environmental issues, green consumer segments need to be identified.	1	2	3	4	5

SECTION 2 – Motivations to become Green

2.1 There are many motives/pressures that can explain a "Green Decision". Below are listed 7 possible motives. Do you think that in the context of your organisation, they are relevant?

		Not Relevant at all				Very Relevant
1	**Corporate Social Responsibility** A motive based on ethical perspective of business's role in society.	1	2	3	4	5
2	**Differentiation** The ability to obtain a price premium due to the effect of differentiation; the potential for increased sales and/or market share due to differentiation	1	2	3	4	5
3	**Entry Barrier** Certification as a barrier to entry in some markets resulting in less competition.	1	2	3	4	5
4	**Image Enhancement** Voluntary adoption of environmental standards may enhance corporate image which allows some special considerations when dealing with public stakeholders.	1	2	3	4	5
5	**Legal Immunity** Voluntary adoption of environmental standards may help protect firm against charges of environmental negligence.	1	2	3	4	5
6	**Cost Savings** The adoption of sound environmental practices such as energy conservation and recycling may actually save the organization expenses, including lower insurance rates.	1	2	3	4	5
7	**Influence on Legal Standards** Voluntary adoption of environmental practices allows commerce to have input on standards and may pre-empt regulations.	1	2	3	4	5

SECTION 2 – Motivations to become Green (cont'd)

2.2 What are the environment-friendly activities that your organisation are presently involved in?

	ACTIVITIES
1	
2	
3	
4	
5	
6	
7	

SECTION 3 – Marketing Strategies – The 4 P's

Product

3.1 Four myths are usually attached to "Green Products". Do you agree with them?

		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
1	Green products cost more.	1	2	3	4	5
2	Green products don't perform as well as conventional products.	1	2	3	4	5
3	Green products appeal only to a small niche.	1	2	3	4	5
4	Green-inspired competitive advantages are often temporary.	1	2	3	4	5

3.2 To what extent can the following product attributes be reduced in favour of a greener product?

		Not at all				To a large extent
1	Product Performance	1	2	3	4	5
2	Quality	1	2	3	4	5
3	Image	1	2	3	4	5
4	Safety	1	2	3	4	5
5	Brand	1	2	3	4	5

SECTION 3 – Marketing Strategies – The 4 P's

Products & Packaging

3.3 What is the level of importance that your organisation/or you attach to the following packaging decision related elements?

		Unimportant				Extremely Important
1	Protection of product	1	2	3	4	5
2	Protection of consumer	1	2	3	4	5
3	Low cost packaging	1	2	3	4	5
4	Maximum convenience for consumer	1	2	3	4	5
5	Attraction of consumer 'Buy me'	1	2	3	4	5
6	Requirement of package to be recyclable	1	2	3	4	5
7	Resealability of package	1	2	3	4	5
8	Information for consumer on product use	1	2	3	4	5
9	Designed to be returnable	1	2	3	4	5
10	Ease of handling during distribution	1	2	3	4	5
11	Enhances corporate identity	1	2	3	4	5
12	Long shelf life of product	1	2	3	4	5
13	Labelling legal requirements	1	2	3	4	5
14	Material reduction used in package	1	2	3	4	5
15	Repeat purchase by consumer	1	2	3	4	5
16	Package is recoverable	1	2	3	4	5
17	Variety of sizes	1	2	3	4	5
18	Single type of material used	1	2	3	4	5
19	Microwave suitability of package	1	2	3	4	5
20	Ease of price marking	1	2	3	4	5
21	Less shelf space required at point of sale	1	2	3	4	5
22	Bar coding considerations	1	2	3	4	5
23	Ease of stacking by retailer	1	2	3	4	5

SECTION 3 – Marketing Strategies – The 4 P's

3.3 Products & Packaging (cont'd)

		Unimportant				Extremely Important
24	New packaging forms and devices for consumer	1	2	3	4	5
25	Label specifies contents clearly	1	2	3	4	5
26	Package designed to be reusable	1	2	3	4	5
27	Time and labour saving package for consumer	1	2	3	4	5
28	Ease of opening for consumer	1	2	3	4	5
29	Easily compressed disposable package	1	2	3	4	5
30	Consumer acceptance	1	2	3	4	5
21	Package can be resealed by consumer	1	2	3	4	5
32	Enhances brand or 'no name brand' character	1	2	3	4	5
33	Special promotions for marketer	1	2	3	4	5
34	See through package	1	2	3	4	5
35	Pilferage/tamper evident	1	2	3	4	5

SECTION 3 – Marketing Strategies – The 4 P's
Products & Packaging (cont'd)

3.4 Do you agree with the following statements about Green Packaging?

	Statement	Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
1	In most cases, the more environmentally friendly the sales package is, the less aesthetically pleasing it is to consumers.	1	2	3	4	5
2	In most cases, making a sales package environmentally friendly will result in the package being less convenient for consumers to handle.	1	2	3	4	5
3	In most cases, making a sales environmentally friendly package will create difficulties in protecting the product on the shelf.	1	2	3	4	5
4	Sales packaging is a major environmental concern.	1	2	3	4	5
5	Assuming it is not possible to have a sales package which both enhances saleability of the product AND is compatible with the environment, the ability of a sales package to sell a product is more important than its compatibility with the environment.	1	2	3	4	5

SECTION 3 – Marketing Strategies – The 4 P's

Products & Packaging (cont'd)

3.5 Please analyse this figure.

How do we define *natural* ? By *natural* we mean that the product contains no artificial preservatives, artificial dyes, or artificial sweeteners (like saccharin) and is created with minimally processed ingredients originally sourced in nature. On each box we list our ingredients, their purpose and source. We believe you have a right to know.

Active Ingredient	**Purpose**	**Source**
Sodium monofluorophosphate	Decay prevention	Fluorspar (calcium fluoride), an ore
Ingredient		
Calcium carbonate	Mild abrasive	Purified calcium from the earth
Glycerin	Moistener	By-product of vegetable oil soap (Kosher)
Water	Consistency	Branch Brook
Sodium lauryl sulfate	Disperse the calcium	Derived from coconut oil
Carrageenan	Thickener	Seaweed
Cinnamon & peppermint oils with other natural flavors	Flavor	Cinnamon & peppermint plants

NO SACCHARIN * NO ARTIFICIAL SWEETENERS OR PRESERVATIVES * NO ARTIFICIAL COLOR OR FLAVOR
NO ANIMAL INGREDIENTS

Figure 2

3.5.1 What is this information about?

____

____

3.5.2 Do you believe that such information about a product's ingredients is

- [ ] Too Much
- [ ] Enough
- [ ] Not Enough

3.5.3 Why should consumers be given so much of information?

____

____

____

____

____

SECTION 3 – Marketing Strategies – The 4 P’s

Pricing

3.6 What pricing strategy should be used with green products at different stage of their life-cycle?

		Low Pricing				High Pricing
1	Introduction (Low Sales)	1	2	3	4	5
2	Growth (Low to Moderate Sales)	1	2	3	4	5
4	Maturity (Moderate to High Sales)	1	2	3	4	5
5	Decline (Low or Declining Sales)	1	2	3	4	5

SECTION 3 – Marketing Strategies – The 4 P's

Promotion

3.7 Green promotion/communication should be:

	Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
1 Actively undertaken.	1	2	3	4	5
2 Be allocated a higher budget than conventional or non-green products.	1	2	3	4	5
3 Primarily targeted at end uses.	1	2	3	4	5
4 Primarily targeted at distribution channels/intermediaries.	1	2	3	4	5

3.8 Which promotion tools do you think would be most effective in promoting a green product?

	Not Effective at all				Very Effective
1 Publicity and Public Relations	1	2	3	4	5
2 Mass Advertising	1	2	3	4	5
3 Sales Promotion	1	2	3	4	5
4 Personal Selling	1	2	3	4	5
5 Direct Mail	1	2	3	4	5
6 Internet Advertising	1	2	3	4	5

SECTION 3 – Marketing Strategies – The 4 P's
Promotion (cont'd)

3.9 Do you believe that your company is practicing "Green Advertising"?

Yes [1] No [2]

3.10 Have you ever heard of the following environmental claims?

		Yes	No
1	General Claims e.g "safe" pesticides	1	2
2	Ozone-Related Claims e.g "ozone-friendly," "ozone-safe," and "environmental formula," and specific ones like "contains no CFCs"	1	2
3	Recyclability and Recycled Content Claims	1	2

3.11 Do you make use of the following environmental claims?

		Yes	No
1	General Claims e.g "safe" pesticides	1	2
2	Ozone-Related Claims e.g "ozone-friendly," "ozone-safe," and "environmental formula," and specific ones like "contains no CFCs"	1	2
3	Recyclability and Recycled Content Claims	1	2

3.12 What are the other types of environmental claims that you know?

____
____
____
____
____
____
____
____
____

SECTION 3 – Marketing Strategies – The 4 P's

Promotion (Cont'd)

3.13 What is your level of agreement with the following statements concerning environmental claims?

		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
1	Consumers do not believe in the environmentally related claims.	1	2	3	4	5
2	Consumer confusion about claims may prevent manufacturers who make genuine improvements in their products from reaping the rewards of their efforts	1	2	3	4	5
3	Environmental claims expose marketers to unreasonable risks of being entailed in legal matters.	1	2	3	4	5
4	It is too expensive to bring brands sold internationally into compliance with local regulations.	1	2	3	4	5

SECTION 3 – Marketing Strategies – The 4 P's

Distribution

3.14 Do you agree with the following statements regarding the distribution of green products?

		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
1	Distribution outlets generally influence the availability of new green products to consumers.	1	2	3	4	5
2	Channel acceptance of new green products is the key to securing required distribution for these products.	1	2	3	4	5
3	Good dealer/retailer margins are important in securing required distribution for new green products.	1	2	3	4	5
4	Perceived consumer demand is important in achieving required distribution for new green products.	1	2	3	4	5

SECTION 4 – The Mauritian Consumer

4.1 What is your level of agreement with the following statements concerning Mauritian consumers?

		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
1	Mauritian consumers are not ready to engage into Green Marketing.	1	2	3	4	5
2	Mauritian consumers do not read labels on products before their purchase decision.	1	2	3	4	5
3	Mauritian consumers will not accept to pay more for environmental friendly products.	1	2	3	4	5
4	Mauritian consumers do not dispose of their waste in an environmentally friendly manner.	1	2	3	4	5
5	Mauritian consumers do not take the environment as a factor when purchasing.	1	2	3	4	5

4.2 What do you think can be done to increase awareness of the Mauritian consumer towards “Green” consciousness?

SECTION 5 – The Future

5.1 To what extent do you think that the production of Genetically Modified Products should be encouraged in Mauritius?

Not at all				To a large extent
1	2	3	4	5

5.2 Does your organisation at present use and/or produce Genetically Modified Products?

Yes [1] No [2]

5.3 Can you please explain the reason for your answer to question 5.2.

____
____
____
____

5.4 What products/activities that are available in Mauritius should be reviewed so that they become more environment-friendly?

____
____
____
____

5.5 How do you foresee Green Consumption in Mauritius evolving in the next 10 years?

____
____
____
____
____
____

Thank you very much for your participation.

APPENDIX C

Draft Questionnaire
(Before Pilot Testing)

Q #	
Int. #	

UNIVERSITY OF MAURITIUS

FACULTY OF LAW AND MANAGEMENT

A STUDY OF GREEN CONSUMER BEHAVIOUR IN MAURITIUS

CONFIDENTIAL

SURVEY QUESTIONNAIRE

SECTION A: DEMOGRAPHIC PROFILE

A1 Occupational Group

1	Legislators, senior officials and managers
2	Professionals
3	Technicians and Associate professionals
4	Clerks
5	Service workers and shop sales workers
6	Skilled agricultural and fishery workers
7	Craft and related trades workers
8	Plant and machine operators and assemblers
9	Elementary occupations
10	Unemployed
11	Household Duties
12	Studies
13	Retired, disabled & others

A2 Gender

1	Male
2	Female

A3 Age

1	Between 16 and 25
2	Between 26 and 34
3	Between 35 and 44
4	Between 45 and 54
5	55 or More

A4 Where do you live?

1	Urban
2	Rural

A5 How far have you studied?

1	No Schooling
2	Primary
3	School Certificate
4	Higher School Certificate
5	Vocational Training
6	Diploma
7	Degree
8	Others Please Specify ____________________

A6 What is your monthly Household Income?

1	Less than 3,500
2	Between 3,500 – 6,999
3	Between 7,000 – 9,999
4	Between 10,000 – 29,999
5	Between 29,999 – 49,999
6	50,000 or More

A7 Ethnic group

1	Sino-Mauritians
2	General Population
3	Hindu
4	Muslim

A8 How many people are there in your household?

[ ]

SECTION B: ATTITUDE

B1 How much do you agree with the following attitude statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
IMPULSE BUYING					
1. I pretty much spend for today and let tomorrow bring what it will.	1	2	3	4	5
2. I frequently buy things when I can't afford them.	1	2	3	4	5
3. I am an impulse buyer.	1	2	3	4	5
OPINION LEADERSHIP					
4. I am influential in my neighbourhood	1	2	3	4	5
I have more self confidence than most of my friends.	1	2	3	4	5
5. I like to be considered a leader.	1	2	3	4	5
6. My opinions on things don't count very much.	1	2	3	4	5
INTEREST IN PRODUCTS					
7. Information from advertising helps me make better buying decisions.	1	2	3	4	5
8. I like to buy new and different things	1	2	3	4	5
9. I am usually among the first to try new products.	1	2	3	4	5
10. My friends and neighbours often come to me for advice about products and brands.	1	2	3	4	5
11. I often seek out the advice of my friends regarding brands and products.	1	2	3	4	5

SECTION B: ATTITUDE (cont'd)

B1 (Cont'd) **How much do you agree with the following attitude statements?** (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
BRAND LOYALTY					
12. When I have a favourite brand I buy it no matter what else is on sale.	1	2	3	4	5
13. A nationally advertised brand is usually a better buy than a generic (not known) brand.	1	2	3	4	5
14. I try to stick to well-known brand names.	1	2	3	4	5
15. A store's own brand is usually a better buy than a nationally advertised brand.	1	2	3	4	5
CARE IN SHOPPING					
16. Before going shopping, I sit down and make out a complete shopping list.	1	2	3	4	5
17. I always check prices even on small items.	1	2	3	4	5
OTHERS					
18. Magazines are more interesting than television.	1	2	3	4	5
19. Television is my primary form of entertainment.	1	2	3	4	5
20. Advertising insults my intelligence.	1	2	3	4	5
21. I refuse to buy a brand whose advertising I dislike.	1	2	3	4	5
22. When I watch television, I usually change the station during commercials.	1	2	3	4	5

SECTION C: GENERAL ENVIRONMENT RELATED QUESTION

C1 What will be the state of the environment in Mauritius in the next 5 years?

Better				Worst
1	2	3	4	5

C2 How serious do you think is the following environmental concerns in Mauritius? (The degree of seriousness is measured by a five point scale from 1 to 5, where 1 means you "Not Serious at all" with the statement while 5 means you "Very Serious" with the statement.)

ENVIRONMENTAL CONCERNS	Not Serious at all				Very Serious
1.Industrial water pollution	1	2	3	4	5
2.Destruction of ozone	1	2	3	4	5
3.Destruction of rain forest	1	2	3	4	5
5.Industrial Accidents	1	2	3	4	5
6.Hazardous waste	1	2	3	4	5
7.Oil spills	1	2	3	4	5
8.Industrial air pollution	1	2	3	4	5
9.Drinking water contamination	1	2	3	4	5
10.Ocean contamination	1	2	3	4	5
11.Auto air pollution	1	2	3	4	5
12.Endangered species	1	2	3	4	5
13.Pesticides on food	1	2	3	4	5
14.Warming up of the earth	1	2	3	4	5
15.Solid waste	1	2	3	4	5
16.Destruction of wetlands	1	2	3	4	5
17.Biotechnology	1	2	3	4	5
18.Indoor air pollution from household cleaners, tobacco smoke, asbestos, etc.	1	2	3	4	5

SECTION C: GENERAL ENVIRONMENT RELATED QUESTION

C3 Who do you think is doing a good job on the environment?

STAKEHOLDER	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Ministry of Environment	1	2	3	4	5
Local Government (Municipality or District Councils)	1	2	3	4	5
The Mauritian Public	1	2	3	4	5
NGO's	1	2	3	4	5
Large Businesses of Mauritius	1	2	3	4	5
Small Businesses of Mauritius	1	2	3	4	5
Others (Please Specify)	1	2	3	4	5

C4 How believable are efforts made by companies in Mauritius to protect the environment?

STATEMENTS	Very Believable	Somewhat	Not very	Not at all	Don't Know
Have a company or its products endorsed by environmental cause or organisation	1	2	3	4	5
Donating money to an environment cause or issue	1	2	3	4	5
Saying that the company is educating the public to take action to help protect the environment through brochures, seminars, videos, or special events	1	2	3	4	5
Saying that the company addresses environmental problems through all company policies, from manufacturing products to marketing	1	2	3	4	5

SECTION D: GREEN PRODUCTS

D1 Have you ever heard of "Green" products?

Never Heard of				A Lot
1	2	3	4	5

D2 Where did you hear about "Green" products?

- ☐ Television
- ☐ Radio
- ☐ Newspapers/Magazines
- ☐ Supermarkets
- ☐ School/University
- ☐ Other (Please Specify)

D3 Do you have a preference for "Green" products?

Whenever there is a choice	Sometimes	Seldom	Never	Unsure
1	2	3	4	5

D4 Which version (Organic or non-organic) of the following products do you use?

	Organic	Non-Organic
1.Vegetables		
2.Fruits		
3.Eggs		
4.Milk		
5.Cheese		
6.Bread		
7.Cereals		
8.Butter		

If respondents use any organic take them through Question D5 & D6. If respondents do not use any organic, go to Section E.

D5 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you “Strongly disagree” with the statement while 5 means you “Strongly agree” with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Organically produced products…					
…taste nice	1	2	3	4	5
…are healthy	1	2	3	4	5
…are expensive	1	2	3	4	5
…are easily available	1	2	3	4	5
…are associated with an alternative lifestyle	1	2	3	4	5
…have an attractive appearance	1	2	3	4	5
…are environmentally friendly	1	2	3	4	5

D6 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you “Strongly disagree” with the statement while 5 means you “Strongly agree” with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1.I am not interested in organically produced products.	1	2	3	4	5
2.I am not satisfied with the variety of organically produced products offered by retailers.	1	2	3	4	5
3.I am so used to buying conventional products.	1	2	3	4	5
4.Supply for organically produced products is occasional only.	1	2	3	4	5
5.Organically produced products are no healthier than conventional ones.	1	2	3	4	5
6.I have some doubts concerning the methods used for organically	1	2	3	4	5

produced products.					

D6 (Cont'd) **How much do you agree with the following statements?** (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
7.Buying organically produced products doesn't make any difference to the environment.	1	2	3	4	5
8.All foods contain pesticide residues even if they are organically produced.	1	2	3	4	5
9.Conventional products have a better appearance and are fresher than organically produced products.	1	2	3	4	5
10.I don't have the time to visit several stores to find all the products I want to buy.	1	2	3	4	5
11.I don't think there is any taste difference between organically produced products and conventional ones.	1	2	3	4	5
12.Prices for organically produced products are too high.	1	2	3	4	5

SECTION E: OTHER STATEMENTS

E1 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ECOLOGICALLY CONSCIOUS CONSUMER BEHAVIOR ITEMS (Cont'd)					
1. To save energy, I drive my car as little as possible.	1	2	3	4	5
2. I normally make a conscious effort to limit my use of products that are made of or use scarce resources.	1	2	3	4	5
3. I try to buy energy efficient household appliances.	1	2	3	4	5
4. I always try to use electric appliances (e.g. dishwasher, washer and dryer) before 10 a.m. and after 10 p.m.	1	2	3	4	5
5. I will not buy products which have excessive packaging.	1	2	3	4	5
6. When there is a choice, I always choose that product which contributes to the least amount of pollution.	1	2	3	4	5
7. I have tried very hard to reduce the amount of electricity I use.	1	2	3	4	5
8. If I understand the potential damage to the environment that some products can cause, I do not purchase these products.	1	2	3	4	5
9. I have switched products for ecological reasons.	1	2	3	4	5
10. I use a recycling center or in some way recycle some of my household trash.	1	2	3	4	5
11. I make every effort to buy paper products made from recycled paper.	1	2	3	4	5
12. I have purchased a household appliance because it uses less electricity than other brands.	1	2	3	4	5
13. I use a low-phosphate detergent (or soap) for my laundry.	1	2	3	4	5
14. I have convinced members of my family or friends not to buy some products which are harmful to the environment.	1	2	3	4	5
15. I have replaced light bulbs in my home with those of smaller wattage so that I will conserve on the electricity I use.	1	2	3	4	5
16. I have purchased products because they cause less pollution.	1	2	3	4	5
17. I do not buy products in aerosol containers.	1	2	3	4	5

SECTION E: OTHER STATEMENTS (Cont'd)

E1 (Cont'd) **How much do you agree with the following statements?** (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ECOLOGICALLY CONSCIOUS CONSUMER BEHAVIOR ITEMS (Cont'd)					
18. Whenever possible, I buy products packaged in reusable containers.	1	2	3	4	5
19. When I purchase products, I always make a conscious effort to buy those products that are low in pollutants.	1	2	3	4	5
20. When I have a choice between two equal products, I always purchase the one which is less harmful to other people and the environment.	1	2	3	4	5
21. I buy toilet paper made from recycled paper.	1	2	3	4	5
22. I buy Kleenex made from recycled paper.	1	2	3	4	5
23. I buy paper towels made from recycled paper.	1	2	3	4	5
24. I will not buy a product if the company that sells it is ecologically irresponsible.	1	2	3	4	5
25. I have purchased light bulbs that were more expensive but saved energy.	1	2	3	4	5
26. I try only to buy products that can be recycled.	1	2	3	4	5
27. To reduce our reliance on foreign oil, I drive my car as little as possible.	1	2	3	4	5
28. I usually purchase the lowest priced product, regardless of its impact on society.	1	2	3	4	5
29. I do not buy household products that harm the environment.	1	2	3	4	5
30. I buy high efficiency light bulbs to save energy.	1	2	3	4	5
31. In general, price is one of the most important factor in my purchasing decisions.	1	2	3	4	5
32. Green products are normally priced higher than non-green products. Therefore, I do not buy them.	1	2	3	4	5
33. In general, if a non-green product cost Rs 100, I will pay Rs 120 for a green product of the same kind.	1	2	3	4	5
34. If I like something and I want to purchase it, price is not a concern.	1	2	3	4	5
35. Read labels to see if contents are environmentally safe	1	2	3	4	5
36. Buy products in packages that can be refilled	1	2	3	4	5
37. Take hazardous waste to collection site	1	2	3	4	5
38. Compost yard waste	1	2	3	4	5
39. Take own bags to supermarket	1	2	3	4	5
40. Contribute money to environmental causes	1	2	3	4	5

41. Volunteer for an environmental group	1	2	3	4	5

SECTION E: OTHER STATEMENTS (Cont'd)

E2 (Cont'd) **How much do you agree with the following statements?** (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
PERCEIVED CONSUMER EFFECTIVENESS ITEMS					
1. It is worthless for the individual consumer to do anything about pollution.	1	2	3	4	5
2. When I buy products, I try to consider how my use of them will affect the environment and other consumers.	1	2	3	4	5
3. Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do.	1	2	3	4	5
4. Each consumer's behavior can have a positive effect on society by purchasing products sold by socially responsible companies.	1	2	3	4	5
5. Buying 'green' will force companies to become more environmentally aware.	1	2	3	4	5

E3 **How much do you agree with the following statements?** (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly agree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ENVIRONMENTAL CONCERN ITEMS					
1. Plants and animals exist primarily to be used by humans.	1	2	3	4	5
2. We are approaching the limit of the number of people the earth can support.	1	2	3	4	5
3. To maintain a healthy economy, we will have to develop a steady-state economy where industrial growth is controlled.	1	2	3	4	5
4. The earth is like a spaceship with only limited room and resources.	1	2	3	4	5
5. Humans need not adapt to the natural environment because they can remake it to suit their needs.	1	2	3	4	5
6. There are limits to growth beyond which our industrialized society cannot expand.	1	2	3	4	5
7. The balance of nature is very delicate and easily upset.	1	2	3	4	5

SECTION E: OTHER STATEMENTS (Cont'd)

E3 (Cont'd) How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly agree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ENVIRONMENTAL CONCERN ITEMS (Cont'd)					
8. When humans interfere with nature, it often produces disastrous consequences.	1	2	3	4	5
9. Humans must live in harmony with nature in order to survive.	1	2	3	4	5
10. Mankind is severely abusing the environment.	1	2	3	4	5
11. Humans have the right to modify the natural environment to suit their needs.	1	2	3	4	5
12. Mankind was created to rule over the rest of nature.	1	2	3	4	5

E4 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly agree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
LIBERALISM ITEMS					
1.The government should control the profits of the big industries.	1	2	3	4	5
2. I am for a federal health insurance program covering men and women of all ages.	1	2	3	4	5
3. If unemployment is high, the government should spend to create jobs.	1	2	3	4	5
4. A government administered health insurance program is necessary to insure that everyone receives adequate medical care.	1	2	3	4	5
5. I am for less government regulation of business.	1	2	3	4	5
6. I am for revising the tax structure so that the burden falls more heavily on corporations and persons with large incomes.	1	2	3	4	5

SECTION F: PRODUCTS

F1 When did you last purchase the product in the following product category?
(Please tick as appropriate)

PRODUCTS	Yesterday	Within last week	Within last month	Within last three months	Half year or more	Never purchase
Battery	1	2	3	4	5	6
Electronic products	1	2	3	4	5	6
Drinks	1	2	3	4	5	6
Food	1	2	3	4	5	6
Clothes	1	2	3	4	5	6
Sprays (e.g hair sprays or gel)	1	2	3	4	5	6
Paper	1	2	3	4	5	6
Pen	1	2	3	4	5	6
Correction Fluid	1	2	3	4	5	6
Newspaper	1	2	3	4	5	6
Books	1	2	3	4	5	6
Paint	1	2	3	4	5	6

F2 How likely are you to buy green products in the following product category?
(Please tick as appropriate – 0% means “No Chance”, 20% means “Slight Possibility”, 40% means “Fair Possibility”, 60% means “Good Possibility”, 80% means “High Probability” and 100% means “Certain”)

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
PRODUCTS	No Chance		Slight Possibility		Fair Possibility		Good Possibility		High Probability		Certain
Battery	1	2	3	4	5	6	7	8	9	10	11
Electronic products	1	2	3	4	5	6	7	8	9	10	11
Drinks	1	2	3	4	5	6	7	8	9	10	11
Food	1	2	3	4	5	6	7	8	9	10	11
Clothes	1	2	3	4	5	6	7	8	9	10	11
Sprays (e.g hair sprays or gel)	1	2	3	4	5	6	7	8	9	10	11
Paper	1	2	3	4	5	6	7	8	9	10	11
Pen	1	2	3	4	5	6	7	8	9	10	11
Correction Fluid	1	2	3	4	5	6	7	8	9	10	11
Newspaper	1	2	3	4	5	6	7	8	9	10	11
Books	1	2	3	4	5	6	7	8	9	10	11
Paint	1	2	3	4	5	6	1	2	3	4	5

F3 Any other comments or suggestions that you would like to add?

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THANK YOU FOR YOUR CO- OPERATION AND YOUR ENDEAVOUR IN PROMOTING GREEN CONSCIOUSNESS IN MAURITIUS

APPENDIX D

International Standard Classification of Occupations (ISCO-88)

MAJOR GROUP 1: LEGISLATORS, SENIOR OFFICIALS AND MANAGERS

11 Legislators and senior officials
- 111 Legislators and senior government officials
  - 1110 Legislators and senior government officials

- 114 Senior officials of special-interest organisations[1]
  - 1141 Senior officials of political party organisations
  - 1142 Senior officials of employers', workers' and other economic-interest organisations
  - 1143 Senior officials of humanitarian and other special-interest organisations

Definitional notes:

Senior government officials within minor group 111 (Legislators and senior government officials) should be restricted to public service officials who occupy the somewhat limited number of senior managerial positions within the public service at central, regional and local levels. Those managing government owned or controlled industrial enterprises, public utilities etc. should be classified to minor groups 121 (Directors and chief executives), 122 (Production and operation managers) or 123 (Other managers) as appropriate. Examples of occupational titles associated with minor group 111 are:

Permanent secretary
Assistant permanent secretary
Head of department
Director of ministry
Mayor
Senior administrator, intergovernmental agency
Diplomatic representative

Footnote

1. When a distinction cannot be made between senior officials of special-interest organisations, in terms of the political, economic or humanitarian aims of the organisation concerned, classification should be made to a unit group 1140 (Senior officials of special-interest organisations, nothing otherwise specified).

12 Corporate managers[1]
- 121 Directors and chief executives[2]
  - 1210 Directors and chief executives
- 122 Production and operations managers[3]
  - 1221 Production and operations managers in agriculture, hunting, forestry and fishing
  - 1222 Production and operations managers in manufacturing
  - 1223 Production and operations managers in construction
  - 1224 Production and operations managers in wholesale and retail trade

	1225	Production and operations managers in restaurants and hotels
	1226	Production and operations managers in transport, storage and communications
	1227	Production and operations managers in business services enterprises
	1228	Production and operations managers in personal care, cleaning and related services
	1229	Production and operations managers not elsewhere classified
123	Other specialist managers[4]	
	1231	Finance and administration managers
	1232	Personnel and industrial relations managers
	1233	Sales and marketing managers
	1234	Advertising and public relations managers
	1235	Supply and distribution managers
	1236	Computing services managers
	1237	Research and development managers
	1239	Other specialist managers not elsewhere classified

Definitional notes:

1. It should be noted that, in cases where information is limited to 'manager - enterprise or organisation with 10 or more employees', classification should be made to a unit group 1200 (*Corporate managers, nothing otherwise specified*).

2. This group is intended to include persons who - as directors or chief executives - manage enterprises or organisations with 10 or more employees.

3. This group is intended to include persons who indicate a production and/or operational managerial specialism in enterprises or organisations with 10 or more employees. Additional information about industry branch may be used to allocate the occupation to unit groups 1221-1229. In the absence of additional information on industry branch, classification should be made to a unit group 1220 (*Production and operations managers, nothing otherwise specified*).

4. This group should be restricted to persons who indicate a non-production/non-operational managerial specialism in enterprises or organisations with 10 or more employees. Unit group 1239 (*Other specialist managers not elsewhere classified*) is reserved for managerial occupations in enterprises or organisations with 10 or more employees for which a non-production/non-operational specialism is indicated but is not covered in unit groups 1231-1237.

13 Managers of small enterprises[1]

131 Managers of small enterprises

1311 Managers of small enterprises in agriculture, hunting, forestry and fishing[2]

1312 Managers of small enterprises in manufacturing

1313 Managers of small enterprises in construction

1314 Managers of small enterprises in wholesale and retail trade

1315 Managers of small enterprises of restaurants and hotels

1316 Managers of small enterprises in transport, storage and communications

1317 Managers of small enterprises in business services enterprises

1318 Managers of small enterprises in personal care, cleaning and related services

1319 Managers of small enterprises not elsewhere classified

Definitional notes:

This group is intended to include persons who manage small enterprises, or organisations with 0-9 employees, on their own behalf, or on behalf of the proprietor, and may have some non-managerial help. Non-managerial staff should be classified according to their specific tasks.

1. It should be noted that, in cases where information is limited to 'manager - enterprise or organisation with 0-9 employees', classification should be made to a unit group 1300 (*Managers of small enterprises, nothing otherwise specified*).

2. Unit group 1311 (*Managers of small enterprises in agriculture, hunting, forestry and fishing*) should be reserved for persons who indicate a managerial specialisation in agriculture, hunting, forestry and fishing activities, in organisations with with 0-9 employees. Persons describing themselves only as 'farmer', 'hunter', 'forester' or 'fisherman' would be classified to Major Group 6 (*Skilled Agricultural and Fishery Workers*).

MAJOR GROUP 2: PROFESSIONALS

21 Physical, mathematical and engineering science professionals
- 211 Physicists, chemists and related professionals
  - 2111 Physicists and astronomers
  - 2112 Meteorologists
  - 2113 Chemists
  - 2114 Geologists and geophysicists
- 212 Mathematicians, statisticians and related professionals
  - 2121 Mathematicians and related professionals
  - 2122 Statisticians[1]
- 213 Computing professionals[2]
  - 2131 Computer systems designers, analysts and programmers
  - 2139 Computing professionals not elsewhere classified
- 214 Architects, engineers and related professionals
  - 2141 Architects, town and traffic planners
  - 2142 Civil engineers
  - 2143 Electrical engineers
  - 2144 Electronics and telecommunications engineers
  - 2145 Mechanical engineers
  - 2146 Chemical engineers
  - 2147 Mining engineers, metallurgists and related professionals
  - 2148 Cartographers and surveyors
  - 2149 Architects, engineers and related professionals not elsewhere classified

Definitional notes:
This sub-major group includes occupations whose main tasks require a high level of professional knowledge and experience in the physical, mathematical and engineering sciences (ILO, 1990; p.47).
1. This category should include public service officials who state that their main professional activity is associated with statistical information processing and analysis or the direct supervision of others involved in such tasks.
2. If the job title does not permit a clear distinction, additional information on level of relevant qualifications, or description of tasks may be used to allocate occupations to either minor group 213 or minor group 312 (*Computer associate professionals*).

22 Life science and health professionals
- 221 Life science professionals
  - 2211 Biologists, botanists, zoologists and related professionals
  - 2212 Pharmacologists, pathologists and related professionals
  - 2213 Agronomists and related professionals

222 Health professionals (except nursing)
2221 Medical doctors
2222 Dentists
2223 Veterinarians
2224 Pharmacists
2229 Health professionals (except nursing) not elsewhere classified

223 Nursing and midwifery professionals
2230 Nursing and midwifery professionals

Definitional notes:
Life science and health professionals conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to fields such as biology, zoology, botany, ecology, physiology, biochemistry, microbiology, pharmacology, agronomy and medicine (ILO, 1990; p.59).
No explicit changes are proposed for this sub-major group. However, it should be noted that strict application of the principle that this sub-major group be restricted to ISCO skill level 4 (education commensurate with a university degree or equivalent) may require reference to information on qualification. This is particularly the case with minor group 223 (*Nursing and Midwifery professionals*), where particular nursing specialisms may require such high level qualifications.

23 Teaching professionals
231 College, university and higher education teaching professionals
2310 College, university and higher education teaching professionals

232 Secondary education teaching professionals
2320 Secondary education teaching professionals

233 Primary and pre-primary education teaching professionals
2331 Primary education teaching professionals
2332 Pre-primary education teaching professionals

234 Special education teaching professionals
2340 Special education teaching professionals

235 Other teaching professionals
2351 Education methods specialists
2352 School inspectors
2359 Other teaching professionals not elsewhere classified

Definitional notes:
Teaching professionals teach the theory and practice of one or more disciplines at different educational levels, conduct research and improve or develop concepts, theories and operational

methods pertaining to their particular discipline, and prepare scholarly papers and books (ILO 1990; p.65).

Allocation of occupations to minor groups 233 (*Primary and pre-primary education teaching professionals*) and 234 (*Special education teaching professionals*) as opposed to minor groups 331 (*Primary education teaching associate professionals*), 332 (*Pre-primary education teaching associate professionals*) and 333 (*Special education teaching associate professionals*) is usually performed for the entire group rather than for any part of it (ie. primary teachers are allocated either to 233 or 331, depending upon national education and training requirements). Harmonisation of national education and training requirements will eventually remove such differences. Meanwhile, it is proposed that countries indicate clearly the basis for their allocation of primary, pre-primary or special education teaching occupations to minor groups 233/234 or 331/332/333.

Headteachers are classified to unit group 1229.

24	Other professionals		
	241	Business professionals	
		2411	Accountants
		2412	Personnel and careers professionals
		2419	Business professionals not elsewhere classified
	242	Legal professionals	
		2421	Lawyers
		2422	Judges
		2429	Legal professionals not elswhere classified
	243	Archivists, librarians and related information professionals	
		2431	Archivists and curators
		2432	Librarians and related information professionals
	244	Social science and related professionals	
		2441	Economists[1]
		2442	Sociologists, anthropologists and related professionals
		2443	Philosophers, historians and political scientists
		2444	Philologists, translators and interpreters
		2445	Psychologists
		2446	Social work professionals
	245	Writers and creative or performing artists[2]	
		2451	Authors, journalists and other writers
		2452	Sculptors, painters and related artists
		2453	Composers, musicians and singers
		2454	Choreographers and dancers
		2455	Film, stage and related actors and directors
	246	Religious professionals	

2460 Religious professionals

247 Public service administrative professionals[3]
2470 Public service administrative professionals

Definitional notes:
Other professionals conduct research, improve or develop concepts, theories and operational methods, or apply knowledge relating to information dissemination and organisation of business, as well as to philosophy, law, psychology, politics, economics, history, religion, languages, sociology, other social sciences, arts and entertainment (ILO, 1990; p.72).
Depending upon the specific tasks and degree of responsibility, as well as on the national educational and training requirements, it may be appropriate to classify some of the occupations identified here into sub-major group 34 (*Other associate professionals*) (ILO, 1990; p.72).
1. This category should include public service officials who state that their main professional activity is associated with economic analysis or the supervision of others involved in such tasks.
2. This category is intended to include persons who require skills at the fourth ISCO skill level (university education or equivalent). Countries should indicate clearly the basis of their allocation of occupations to this minor group as opposed to minor group 347 (*Artistic, entertainment and sports associate professionals*).
3. This is a new minor group, designed explicitly for the classification of occupations in which the primary tasks consist of general administrative functions within the public service and for which national education and training requirements stipulate a university education or equivalent. Occupations classified to this category exclude the most senior general administrative grades within the public service (classified to minor group 111 *Legislators and senior government officials*).

MAJOR GROUP 3: TECHNICIANS AND ASSOCIATE PROFESSIONALS

31 Physical and engineering science associate professionals
- 311 Physical and engineering science technicians
  - 3111 Chemical and physical science technicians
  - 3112 Civil engineering technicians
  - 3113 Electrical engineering technicians
  - 3114 Electronics and telecommunications engineering technicians
  - 3115 Mechanical engineering technicians
  - 3116 Chemical engineering technicians
  - 3117 Mining and metallurgical technicians
  - 3118 Draughtspersons
  - 3119 Physical and engineering science technicians not elsewhere classified
- 312 Computer associate professionals[1,2]
  - 3121 Computer assistants
  - 3122 Computer equipment operators
  - 3123 Industrial robot controllers
- 313 Optical and electronic equipment operators
  - 3131 Photographers and image and sound recording equipment operators
  - 3132 Broadcasting and telecommunications equipment operators
  - 3133 Medical equipment operators
  - 3139 Optical and electronic equipment operators not elsewhere classified
- 314 Ship and aircraft controllers and technicians
  - 3141 Ships' engineers
  - 3142 Ships' deck officers and pilots
  - 3143 Aircraft pilots and related associate professionals
  - 3144 Air traffic controllers
  - 3145 Air traffic safety technicians
- 315 Safety and quality inspectors
  - 3151 Building and fire inspectors
  - 3152 Safety, health and quality inspectors

Definitional notes:
Technicians and associate professionals perform mostly technical and related tasks connected with research and the application of scientific and artistic concepts and operational methods, and government or business regulations, and teach at certain educational levels. Most occupations in this group require skills at the third ISCO level (education which begins at the age of 17 or 18 years and leads to an award not equivalent to a first university degree) (ILO, 1990; p.3 & 85).

1. If the job title and associated information on activities does not permit a clear distinction, additional information on a level of relevant qualifications or description of tasks may be used to allocate occupations to either minor group 312 (*Computer associate professionals*) or minor group 213 (*computing professionals*).
2. Unit groups 3121, 3122 and 3123 may be merged and described as unit group 3120 (*Computer associate professionals, nothing otherwise specified*).

32	Life science and health associate professionals		
	321	Life science technicians and related associate professional	
		3211	Life science technicians
		3212	Agronomy and forestry technicians
		3213	Farming and forestry advisers
	322	Health associate professionals (except nursing)	
		3221	Medical assistants
		3222	Hygienists, health and environmental officers[1]
		3223	Dieticians and nutritionists
		3224	Optometrists and opticians
		3225	Dental assistants
		3226	Physiotherapists and related associate professionals
		3227	Veterinary assistants
		3228	Pharmaceutical assistants
		3229	Health associate professionals (except nursing) not elsewhere classified
	323	Nursing and midwifery associate professionals[2]	
		3231	Nursing associate professionals
		3232	Midwifery associate professionals

Definitional notes:
1. Change of name only.
2. See notes to minor group 223 (*Nursing and midwifery professionals*).
Note that ISCO-88 minor group 324 (*Traditional medicine practitioners and faith healers*) is not used. Such occupations (where separately identified in a national occupational classification) are classified to unit group 3229 (*Health associate professionals not elsewhere classified*).

33	Teaching associate professionals		
	331	Primary education teaching associate professionals	
		3310	Primary education teaching associate professionals
	332	Pre-primary education teaching associate professionals	
		3320	Pre-primary education teaching associate professionals
	333	Special education teaching associate professionals	
		3330	Special education teaching associate professionals

334 Other teaching associate professionals
3340 Other teaching associate professionals

Definitional notes:
See notes for sub-major group 23 (*Teaching professionals*).

34 Other associate professionals
341 Finance and sales associate professionals
3411 Securities and finance dealers and brokers
3412 Insurance representatives
3413 Estate agents
3414 Travel consultants and organisers
3415 Technical and commercial sales representatives
3416 Buyers
3417 Appraisers, valuers and auctioneers
3419 Finance and sales associate professionals not elsewhere classified

342 Business services agents and trade brokers
3421 Trade brokers
3422 Clearing and forwarding agents
3423 Employment agents and labour contractors
3429 Business services agents and trade brokers not elsewhere classified

343 Administrative associate professionals
3431 Administrative secretaries and related associate professionals[1]
3432 Legal and related business associate professionals
3433 Bookkeepers
3434 Statistical, mathematical and related associate professionals

Definitional notes:
Other associate professionals perform technical tasks connected with the practical application of knowledge relating to finance and sales, business enterprise administration, bookkeeping, legal, statistical and other services, government activities relating to customs, travel, tax, welfare, job placement, licensing, the police force, as well as with social work, entertainment, sport and religion (ILO, 1990; p.113).
1. This unit group consist of occupations which support professional and/or managerial staff in an administrative capacity. The range of tasks/responsibilities wil be wider than those ascribed to jobs classified in unit group 4115 (*secretaries*). Included in this unit group should be associate professional occupations within the public service which are not specialist public service occupations (eg, customs, tax, social benefit, licensing officials - these would be allocated to minor group 344), but which consist primarily of administrative functions and for which the skills level is defined at the ISCO third level.

344	Customs, tax and related government associate professionals	
	3441	Customs and border inspectors
	3442	Government tax and excise officials
	3443	Government social benefits officials
	3444	Government licensing officials
	3449	Customs, tax and related government associate professionals not elsewhere classified[1]
345	Police inspectors and detectives	
	3450	Police inspectors and detectives
346	Social work associate professionals	
	3460	Social work associate professionals
347	Artistic, entertainment and sports associate professionals	
	3471	Decorators and commercial designers
	3472	Radio, television and other announcers
	3473	Street, night-club and related musicians, singers and dancers
	3474	Clowns, magicians, acrobats and related associate professionals
	3475	Athletes, sports persons and related associate professionals
348	Religious associate professionals	
	3480	Religious associate professionals

Definitional notes:

It should be noted that, depending on the specific tasks and degree of responsibility in executing them, as well as on the national educational and training requirements, it may be appropriate to classify some of the occupations that are identified here into sub-major group 24 (*Other professionals*). This is particularly relevant to the occupations classified into minor group 346, (*Social work associate professionals*) (ILO, 1990; p.113).

1. Unit group 3449 should be restricted to those occupations which are specific to the public service sector, and which have no direct parallel outside the public service. Examples of occupations classified to this category include:

Wage inspector

Weights and measures inspector

MAJOR GROUP 4: CLERKS

41 Office clerks[1]

- 411 Secretaries and keyboard-operating clerks
  - 4111 Stenographers and typists
  - 4112 Word-processor and related operators
  - 4113 Data entry operators
  - 4114 Calculating-machine operators
  - 4115 Secretaries
- 412 Numerical clerks
  - 4121 Accounting and book-keeping clerks
  - 4122 Statistical and finance clerks
- 413 Material-recording and transport clerks
  - 4131 Stock clerks
  - 4132 Production clerks
  - 4133 Transport clerks
- 414 Library, mail and related clerks
  - 4141 Library and filing clerks
  - 4142 Mail carriers and sorting clerks
  - 4143 Coding, proof-reading and related clerks
  - 4144 Scribes and related workers
- 419 Other office clerks[2]
  - 4190 Other office clerks

Definitional notes:
Clerks record, store, compute and retrieve information, perform a number of clerical duties especially in connection with money-handling operations, travel arrangements, request for information and appointments. Most occupations in this group require skills at the second ISCO level (an education level which begins at the age of 14 or 15 and lasts about three years) (ILO, 1990; p.131).
1. Occupations describing clerical tasks but failing to distinguish between office clerks and customer services clerks should be allocated to a unit group 4000 (*clerks, nothing otherwise specified*).
2. Where it is clear that the clerical duties involve office work, not customer service activities, yet classification to minor groups 411-414 is not possible, either because these involve a wide range of office activities or because specific information on the nature of these activities is not available, classification is to minor group 419 (*Other office clerks*).

42 Customer services clerks

- 421 Cashiers, tellers and related clerks

4211	Cashiers and ticket clerks
4212	Tellers and other counter clerks
4213	Bookmakers and croupiers
4214	Pawnbrokers and money-lenders
4215	Debt-collectors and related workers
422	Client information clerks
4221	Travel agency and related clerks
4222	Receptionists and information clerks
4223	Telephone switchboard operators

Definitional notes:
Customer services clerks deal directly with clients in connections with money-handling operations, travel arrangements, requests for information, appointments and by operating telehone switchboards (ILO, 1990; p.139).
Allocation of clerks between sub-major groups 41 (*Office clerks*) and 42 (*Customer services clerks*) will be performed with reference to job titles and/or job descriptions. Specific job titles/descriptions which indicate direct customer service interaction (eg. counter clerk, receptionist, telephonist) will result in classification within sub-major group 42 (C*ustomer services clerks*). In cases where information is less specific (eg. bank clerk), classification should be to sub-major group 41 (*Office clerks*).

MAJOR GROUP 5: SERVICE WORKERS AND SHOP AND MARKET SALES WORKERS

51 Personal and protective services workers

- 511 Travel attendants and related workers
  - 5111 Travel attendants and travel stewards
  - 5112 Transport conductors
  - 5113 Travel guides

- 512 Housekeeping and restaurant services workers
  - 5121 Housekeepers and related workers
  - 5122 Cooks
  - 5123 Waiters, waitresses and bartenders

- 513 Personal care and related workers[1]
  - 5131 Child-care workers
  - 5132 Institution-based personal care workers
  - 5133 Home-based personal care workers
  - 5139 Personal care and related workers not elsewhere classified

- 514 Other personal services workers
  - 5141 Hairdressers, barbers, beauticians and related workers
  - 5142 Companions and valets
  - 5143 Undertakers and embalmers
  - 5149 Other personal services workers not elsewhere classified

- 516 Protective services workers
  - 5161 Fire-fighters
  - 5162 Police officers
  - 5163 Prison guards
  - 5169 Protective services workers not elsewhere classified

Definitional notes:

Service workers and shop and market sales workers provide personal and protective services related to travel, housekeeping, personal care, or protection against fire, unlawful acts, or they pose as models for artistic creation and display, or demonstrate and sell goods in wholesale or retail shops and similar establishments, as at well as stalls and on markets. Most occupations in this major group require skills at the second ISCO level (ILO, 1990; p.143).

Minor group 515 (*Astrologers, fortune tellers and related workers*) in ISCO-88 is not separately identified; such occupations should be classified to unit group 5149 (*Other personal services workers not elsewhere classified*).

1. *Personal care and related workers* perform simple tasks to assist medical, nursing, midwifery and dental professionals or associate professionals in their dutires. They may also attend to the personal needs and provide care for persons in need of such care. Where no distinction can be made between 'institution-based' care (unit group 5132) and 'home-based' care (unit group 5133),

all such personal care workers should be allocated to unit group 5130 (*Personal care and related workers, nothing otherwise specified*).

52 Models, salespersons and demonstrators

521 Fashion and other models

5210 Fashion and other models

522 Shop, stall and market salespersons and demonstrators[1]

5220 Shop, stall and market salespersons and demonstrators

Definitional notes:

See definitional notes to major group 5 (*Service Workers and Shop and Market Sales Workers*)

1. No distinction is made between shop, stall and market salespersons.

MAJOR GROUP 6: SKILLED AGRICULTURAL AND FISHERY WORKERS

61	Skilled agricultural and fishery workers[1]		
	611	Market gardeners and crop growers	
		6111	Field crop and vegetable growers[2]
		6112	Gardeners, horticultural and nursery growers
	612	Animal producers and related workers	
		6121	Dairy and livestock producers
		6122	Poultry producers
		6129	Animal producers and related workers not elsewhere classified
	613	Crop and animal producers	
		6130	Crop and animal producers
	614	Forestry and related workers	
		6141	Forestry workers and loggers
		6142	Charcoal burners and related workers
	615	Fishery workers, hunters and trappers	
		6151	Aquatic life cultivation workers
		6152	Inland and coastal waters fishery workers
		6153	Deep-sea fishery workers
		6154	Hunters and trappers

Definitional notes:
Sub-major group 61 (*Skilled agricultural and fishery workers*) consists of those occupations which require skills at the second ISCO skill level (education which begins at the age of 14 or 15 and lasts about three years - a period of on-the-job training may be necessary, which may supplement or replace the formal education) (ILO, 1990; p.157 & 3).
Unit groups 6111 and 6112 within minor group 611 (*Market gardeners and crop growers*) and unit groups 6121 and 6122 within minor group 612 (*Animal producers and related workers*) are identified in terms of the main agricultural product. Unit group 6129 (Animal producers and related workers not elsewhere classified) is reserved for mixed animal producers, apiarists and sericulturists.
No skilled agricultural occupations within the European Community are classified to sub-major group 62 (*Subsistence agricultural and fishery workers*).
1. Where a main agricultural product associated with the skilled agricultural occupational cannot be identified, classification is to a minor group 610 (*Skilled agricultural and fishery workers, nothing otherwise specified*).
2. Includes tree and shrub crop growers.

MAJOR GROUP 7: CRAFT AND RELATED TRADES WORKERS[1]

71 Extraction and building trades workers
- 711 Miners, shotfirers, stone cutters and carvers
  - 7111 Miners and quarry workers
  - 7112 Shotfirers and blasters
  - 7113 Stone splitters, cutters and carvers
- 712 Building frame and related trades workers
  - 7121 Builders
  - 7122 Bricklayers and stonemasons
  - 7123 Concrete placers, concrete finishers and related workers
  - 7124 Carpenters and joiners
  - 7129 Building frame and related trades workers not elsewhere classified
- 713 Building finishers and related trades workers
  - 7131 Roofers
  - 7132 Floor layers and tile setters
  - 7133 Plasterers
  - 7134 Insulation workers
  - 7135 Glaziers
  - 7136 Plumbers and pipe fitters
  - 7137 Building and related electricians
  - 7139 Building finishers and related trade workers not elsewhere classified
- 714 Painters, building structure cleaners and related trades workers
  - 7141 Painters and related workers[2]
  - 7143 Building structure cleaners

Definitional notes:
Craft and related trades workers apply their specific knowledge and skills to produce or process goods. The tasks call for an understanding of all stages of the production process, the materials and tools used and the nature and purpose of the final product. Most occupations in this group require skills at the second ISCO level (ILO, 1990; p.173).
1. In the absence of sufficient information to ascertain the relevant trade, classification should be made to a unit group 7000 (*Craft and related trades workers, nothing otherwise specified*) or to a unit group 7100, 7200, 7300 or 7400 if a broad trade specialisation is given.
2. Unit group 7142 (*Varnishers and related painters*) is not separately identified from unit group 7141 (P*ainters and related workers*).

72 Metal, machinery and related trades workers
- 721 Metal moulders, welders, sheet-metal workers, structural-metal preparers, and related trades workers

		7211	Metal moulders and coremakers
		7212	Welders and flame cutters
		7213	Sheet-metal workers
		7214	Structural-metal preparers and erectors
		7215	Riggers and cable splicers
		7216	Underwater workers
	722	Blacksmiths, tool-makers and related trades workers	
		7221	Blacksmiths, hammer-smiths and forging-press workers
		7222	Tool-makers and related workers
		7223	Machine-tool setters and setter-operators
		7224	Metal wheel-grinders, polishers and tool sharpeners
	723	Machinery mechanics and fitters	
		7231	Motor vehicle mechanics and fitters
		7232	Aircraft engine mechanics and fitters
		7233	Agricultural- or industrial-machinery mechanics and fitters
	724	Electrical and electronic equipment mechanics and fitters	
		7241	Electrical mechanics fitters and services
		7242	Electronics mechanics, fitters and servicers[1]
		7244	Telegraph and telephone installers and servicers
		7245	Electrical line installers, repairers and cable jointers

Definitional notes:
See definitional notes for major group 7.
1. Note that unit group 7242 (*electronics mechanics fitters and servicers*) does not identify electronics fitters separately from electronics mechanics, fitters and servicers.

73	Precision, handicraft, craft printing and related trades workers		
	731	Precision workers in metal and related materials	
		7311	Precision-instrument makers and repairers
		7312	Musical-instrument makers and tuners
		7313	Jewellery and precious-metal workers
	732	Potters, glass-makers and related trades workers	
		7321	Abrasive wheel formers, potters and related workers
		7322	Glass-makers, cutters, grinders and finishers
		7323	Glass engravers and etchers
		7324	Glass, ceramics and related decorative painters
	733	Handicraft workers in wood, textile, leather and related materials	
		7331	Handicraft workers in wood and related materials
		7332	Handicraft workers in textile, leather and related materials

734 Craft printing and related trades workers
7341 Compositors, typesetters and related workers
7342 Stereotypers and electrotypers
7343 Printing engravers and etchers
7344 Photographic and related workers
7345 Bookbinders and related workers
7346 Silk-screen, block and craft textile printers

Definitional notes:
See definitional notes for major group 7.

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74 Other craft and related trades workers
741 Food processing and related trades workers
7411 Butchers, fishmongers and related food preparers1
7412 Bakers, pastry-cooks and confectionery makers1
7413 Dairy-products workers
7414 Fruit, vegetable and related preservers
7415 Food and beverage tasters and graders
7416 Tobacco preparers and tobacco products makers

742 Wood treaters, cabinet-makers and related trades workers
7421 Wood treaters
7422 Cabinetmakers and related workers
7423 Woodworking machine setters and setter-operators
7424 Basketry weavers, brush makers and related workers

743 Textile, garment and related trades workers
7431 Fibre preparers
7432 Weavers, knitters and related workers
7433 Tailors, dressmakers and hatters
7434 Furriers and related workers
7435 Textile, leather and related pattern-makers and cutters
7436 Sewers, embroiderers and related workers
7437 Upholsterers and related workers

744 Pelt, leather and shoemaking trades workers
7441 Pelt dressers, tanners and fellmongers
7442 Shoe-makers and related workers

Definitional notes:
See definitional notes for major group 7.
1. Occupations classified to these unit groups may involve some managerial responsibilities, especially where a person works on their own account, with or without employees or family

assistance. If, however, the main activity is described in terms of the relevant skilled trade, classification is to these categories.
No changes are proposed for the above unit groups.

MAJOR GROUP 8: PLANT AND MACHINE OPERATORS AND ASSEMBLERS

81 Stationary plant and related operators[1]

- 811 Mining and mineral-processing-plant operators
  - 8111 Mining plant operators
  - 8112 Mineral-ore and stone-processing-plant operators
  - 8113 Well drillers and borers and related workers

- 812 Metal-processing plant operators
  - 8121 Ore and metal furnace operators
  - 8122 Metal melters, casters and rolling-mill operators
  - 8123 Metal heat-treating-plant operators
  - 8124 Metal drawers and extruders

- 813 Glass, ceramics and related plant operators
  - 8131 Glass and ceramics kiln and related machine operators
  - 8139 Glass, ceramics and related plant operators not elsewhere classified

- 814 Wood-processing- and papermaking-plant operators
  - 8141 Wood-processing-plant operators
  - 8142 Paper-pulp plant operators
  - 8143 Papermaking-plant operators

- 815 Chemical-processing-plant operators
  - 8151 Crushing-, grinding- and chemical-mixing-machinery operators
  - 8152 Chemical-heat-treating-plant operators
  - 8153 Chemical-filtering- and separating-equipment operators
  - 8154 Chemical-still and reactor operators (except petroleum and natural gas)
  - 8155 Petroleum- and natural-gas-refining-plant operators
  - 8159 Chemical-processing-plant operators not elsewhere classified

- 816 Power-production and related plant operators
  - 8161 Power-production plant operators
  - 8162 Steam-engine and boiler operators
  - 8163 Incinerator, water-treatment and related plant operators

- 817 Industrial robot operators
  - 8170 Industrial robot operators

Definitional notes:

Plant and machine operators and assemblers operate and monitor industrial and agricultural machinery and equipment on the spot or by remote control, drive and operate trains, motor

vehicles and mobile machinery and equipment, or assemble products from component parts according to strict specifications and procedures.
The work mainly calls for experience with, and an understanding of, industrial and agricultural machinery and equipment as well as an ability to cope with machine-paced operations and to adapt to technological innovations. Most occupations in the major group require skills at the second ISCO level (ILO, 1990; p.211).
1. 'Stationary plant' should be interpreted primarily as 'process plant'. Operative occupations classified to sub-major group 81 (*Stationary plant and related operators*) involve process control operations, usually to a strictly defined set of procedures.
Automated assembly line operators are not separately distinguished from assembling occupations in minor group 828 (*Assemblers*).

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82 Machine operators and assemblers

- 821 Metal- and mineral-products machine operators
  - 8211 Machine-tool operators
  - 8212 Cement and other mineral products machine operators
- 822 Chemical-products machine operators
  - 8221 Pharmaceutical-and toiletry-products machine operators
  - 8222 Ammunition- and explosive-products machine operators
  - 8223 Metal finishing-, plating- and coating-machine operators
  - 8224 Photographic-products machine operators
  - 8229 Chemical-products machine operators not elsewhere classified
- 823 Rubber- and plastic-products machine operators
  - 8231 Rubber-products machine operators
  - 8232 Plastic-products machine operators
- 824 Wood-products machine operators
  - 8240 Wood-products machine operators
- 825 Printing-, binding- and paper-products machine operators
  - 8251 Printing-machine operators
  - 8252 Book-binding-machine operators
  - 8253 Paper-products machine operators
- 826 Textile-, fur- and leather-products machine operators
  - 8261 Fibre-preparing-, spinning- and winding-machine operators
  - 8262 Weaving- and knitting-machine operators
  - 8263 Sewing-machine operators
  - 8264 Bleaching-, dyeing- and cleaning-machine operators
  - 8265 Fur- and leather-preparing-machine operators
  - 8266 Shoemaking- and related machine operators
  - 8269 Textile-, fur- and leather-products machine operators not elsewhere classified

	827	Food and related products machine operators	
		8271	Meat- and fish-processing-machine operators
		8272	Dairy-products machine operators
		8273	Grain- and spice-milling-machine operators
		8274	Baked-goods, cereal- and chocolate-products machine operators
		8275	Fruit-, vegetable- and nut-processing-machine operators
		8276	Sugar production machine operators
		8277	Tea-, coffee- and cocoa-processing-machine operators
		8278	Brewers, wine and other beverage machine operators
		8279	Tobacco production machine operators

Definitional notes:
See notes to major group 8.
No changes are proposed for these minor groups.

	828	Assemblers[1]	
		8281	Mechanical-machinery assemblers
		8282	Electrical-equipment assemblers
		8283	Electronic-equipment assemblers
		8284	Metal-, rubber- and plastic-products assemblers
		8285	Wood and related products assemblers
		8286	Paperboard, textile and related products assemblers
		8287	Composite products assemblers[2]
	829	Other machine operators not elsewhere classified	
		8290	Other machine operators not elsewhere classified

Definitional notes:
See notes to major group 8.
1. Assemblers working on automated or semi-automated assembly lines are included in minor group 828. If there is sufficient information to classify assembling occupations in terms of the assembled products, classification is to unit group 8280 (*Assemblers, nothing otherwise specified*).
2. A new category covering the assembly of composite products, involving a variety of assembled parts.

83	Drivers and mobile plant operators		
	831	Locomotive engine drivers and related workers	
		8311	Locomotive engine drivers
		8312	Railway brakers, signallers and shunters
	832	Motor vehicle drivers	
		8321	Motorcycle drivers
		8322	Car, taxi and van drivers

	8323	Bus and tram drivers	
	8324	Heavy truck and lorry drivers	
833	Agricultural and other mobile plant operators		
	8331	Motorised farm and forestry plant operators	
	8332	Earth-moving and related plant operators	
	8333	Crane, hoist and related plant operators	
	8334	Lifting-truck operators	
834	Ships' deck crews and related workers		
	8340	Ships' deck crews and related workers	

Definitional notes:
See notes to major group 8.
No changes are proposed for these minor groups.

MAJOR GROUP 9: ELEMENTARY OCCUPATIONS[1]

91	Sales and services elementary occupations		
	911	Street vendors and related workers	
		9111	Street vendors[2]
		9113	Door-to-door and telephone salespersons
	912	Shoe cleaning and other street services elementary occupations	
		9120	Shoe cleaning and other street services elementary occupations
	913	Domestic and related helpers, cleaners and launderers	
		9131	Domestic helpers and cleaners
		9132	Helpers and cleaners in offices, hotels and other establishments
		9133	Hand-launderers and pressers
	914	Building caretakers, window and related cleaners	
		9141	Building caretakers
		9142	Vehicle, window and related cleaners
	915	Messengers, porters, doorkeepers and related workers	
		9151	Messengers, package and luggage porters and deliverers
		9152	Doorkeepers, watchpersons and related workers
		9153	Vending-machine money collectors, meter readers and related workers
	916	Garbage collectors and related labourers	
		9161	Garbage collectors
		9162	Sweepers and related labourers

Definitional notes:
Elementary occupations consist mainly of simple and routine tasks which mainly require the use of hand-held tools and often some physical effort. Most occupations in this major group require skills at the first ISCO skill level (a primary education which generally begins at the age of 5, 6 or 7 and lasts about 5 years) (ILO, 1990; p.249 & 2).
Strict application of the ISCO skill level to occupations in this major group is inappropriate, given that basic education provision always exceeds this level. A more appropriate test may be the length of any associated vocational training. Typically, such training will consist primarily of induction training, lasting only a matter of weeks.
1. Where there is insufficient information to classify labouring occupations to sub-major group 91 (*Sales and services elementary occupations*), sub-major group 92 (*Agricultural, fishery and related workers*) or sub-major group 93 (*Labourers in mining, construction, manufacturing or transport*), classification is to a unit group 9000 (*Elementary occupations, nothing otherwise specified*).
2. Unit group 9112 (*Street vendors, non-food products*) is not separately identified from unit group 9111 (*Street vendors*).

92 Agricultural, fishery and related labourers
- 921 Agricultural, fishery and related labourers
  - 9211 Farm-hands and labourers
  - 9212 Forestry labourers
  - 9213 Fishery, hunting and trapping labourers

93 Labourers in mining, construction, manufacturing and transport
- 931 Mining and construction labourers
  - 9311 Mining and quarrying labourers
  - 9312 Construction and maintenance labourers: roads, dams and similar constructions
  - 9313 Building construction labourers
- 932 Manufacturing labourers[1]
  - 9320 Manufacturing labourers
- 933 Transport labourers and freight handlers
  - 9330 Transport labourers and freight handlers[2]

Definitional notes:
See notes to major group 9.
1. *Manufacturing labourers* include hand-packing operations and other basic labouring tasks associated with manufacturing operations. *Assemblers* are classified to minor group 828 (*Assemblers*).
2. *Transport labourers and freight handlers* include loaders and unloaders of motor and rail vehicles and ships.

APPENDIX E

Final Questionnaire

Q #	
Int. #	

UNIVERSITY OF MAURITIUS

FACULTY OF LAW AND MANAGEMENT

A STUDY OF GREEN CONSUMER BEHAVIOUR IN MAURITIUS

CONFIDENTIAL

SURVEY QUESTIONNAIRE

UNIVERSITY OF MAURITIUS

FACULTY OF LAW & MANAGEMENT

1st November 2003

Dear Sir/Madam

The Faculty of Law & Management of the University of Mauritius in collaboration with the Mauritius Research Council is carrying a survey on green consumer behaviour in Mauritius. In this respect, I would be grateful if you could give the beholder of this letter the permission carry an interview with you. The interview will last up to 45 minutes. Please rest assured that all the information obtained during the interview is going to be treated with strict confidentiality.

Should you need have any comments or queries related the green marketing, do not hesitate to call Mr Nitin Ramphul on the 454 1041, ext 1453.

I thank you very much for your co-operation and your endeavour in promoting green consciousness in Mauritius.

Yours sincerely

Mrs R Juwaheer

Senior Lecturer, Head Department of Management

Faculty of Law & Management

University of Mauritius

SECTION A: DEMOGRAPHIC PROFILE

A1 Occupational Group

1	Legislators, senior officials and managers
2	Professionals
3	Technicians and Associate professionals
4	Clerks
5	Service workers and shop sales workers
6	Skilled agricultural and fishery workers
7	Craft and related trades workers
8	Plant and machine operators and assemblers
9	Elementary occupations
10	Unemployed
11	Household Duties
12	Studies
13	Retired, disabled & others

A2 Gender

1	Male
2	Female

A3 Age

1	Between 16 and 25
2	Between 26 and 34
3	Between 35 and 44
4	Between 45 and 54
5	55 or More

A4 Where do you live?

1	Urban
2	Rural

A5 How far have you studied?

1	No Schooling
2	Primary
3	School Certificate
4	Higher School Certificate
5	Vocational Training
6	Diploma
7	Degree
8	Others: Please Specify ______________________

A6 What is your monthly Household Income?

1	Less than 3,500
2	Between 3,500 – 6,999
3	Between 7,000 – 9,999
4	Between 10,000 – 29,999
5	Between 29,999 – 49,999
6	50,000 or More

A7 Ethnic group

1	Sino-Mauritians
2	General Population
3	Hindu
4	Muslim

A8 How many people are there in your household?

SECTION B: ATTITUDE

B1 How much do you agree with the following attitude statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
IMPULSE BUYING					
1. I pretty much spend for today and let tomorrow bring what it will.	1	2	3	4	5
2. I frequently buy things when I can't afford them.	1	2	3	4	5
3. I am an impulse buyer.	1	2	3	4	5
OPINION LEADERSHIP					
4. I am influential in my neighbourhood	1	2	3	4	5
I have more self confidence than most of my friends.	1	2	3	4	5
5. I like to be considered a leader.	1	2	3	4	5
6. My opinions on things don't count very much.	1	2	3	4	5
INTEREST IN PRODUCTS					
7. Information from advertising helps me make better buying decisions.	1	2	3	4	5
8. I like to buy new and different things	1	2	3	4	5
9. I am usually among the first to try new products.	1	2	3	4	5
10. My friends and neighbours often come to me for advice about products and brands.	1	2	3	4	5
11. I often seek out the advice of my friends regarding brands and products.	1	2	3	4	5

SECTION B: ATTITUDE (cont'd)

B1 (Cont'd) How much do you agree with the following attitude statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
BRAND LOYALTY					
12. When I have a favourite brand I buy it no matter what else is on sale.	1	2	3	4	5
13. A nationally advertised brand is usually a better buy than a generic (not known) brand.	1	2	3	4	5
14. I try to stick to well-known brand names.	1	2	3	4	5
15. A store's own brand is usually a better buy than a nationally advertised brand.	1	2	3	4	5
CARE IN SHOPPING					
16. Before going shopping, I sit down and make out a complete shopping list.	1	2	3	4	5
17. I always check prices even on small items.	1	2	3	4	5
OTHERS					
18. Magazines are more interesting than television.	1	2	3	4	5
19. Television is my primary form of entertainment.	1	2	3	4	5
20. When I watch television, I usually change the station during commercials.	1	2	3	4	5
21. I refuse to buy a brand whose advertising I dislike.	1	2	3	4	5
22. Advertising insults my intelligence.	1	2	3	4	5

SECTION C: GENERAL ENVIRONMENT RELATED QUESTION

C1 What will be the state of the environment in Mauritius in the next 5 years?

Better				Worst
1	2	3	4	5

C2 How serious do you think is the following environmental concerns in Mauritius? (The degree of seriousness is measured by a five point scale from 1 to 5, where 1 means you "Not Serious at all" with the statement while 5 means you "Very Serious" with the statement.)

ENVIRONMENTAL CONCERNS	Not Serious at all				Very Serious
1.Industrial water pollution	1	2	3	4	5
2.Destruction of ozone	1	2	3	4	5
3.Destruction of rain forest	1	2	3	4	5
5.Industrial accidents	1	2	3	4	5
6.Hazardous waste	1	2	3	4	5
7.Oil spills	1	2	3	4	5
8.Industrial air pollution	1	2	3	4	5
9.Drinking water contamination	1	2	3	4	5
10.Ocean contamination	1	2	3	4	5
11.Auto air pollution	1	2	3	4	5
12.Endangered species	1	2	3	4	5
13.Pesticides on food	1	2	3	4	5
14.Warming up of the earth	1	2	3	4	5
15.Solid waste	1	2	3	4	5
16.Destruction of wetlands	1	2	3	4	5
17.Genetically Modified Products	1	2	3	4	5
18.Indoor air pollution from household cleaners, tobacco smoke, asbestos, etc.	1	2	3	4	5

GMP's are products that are produced using Genetic Engineering which is a set of laboratory techniques for isolating genetic material from organisms, cutting and rejoining it to make new combinations, multiplying copies of the recombined genetic and transferring it into organisms, thereby bypassing the process of reproduction.

SECTION C: GENERAL ENVIRONMENT RELATED QUESTION (Cont'd)

C3 Who do you think is doing a good job on the environment?

STAKEHOLDER	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Ministry of Environment	1	2	3	4	5
Local Government (Municipality or District Councils)	1	2	3	4	5
The Mauritian Public	1	2	3	4	5
NGO's	1	2	3	4	5
Large Businesses of Mauritius	1	2	3	4	5
Small Businesses of Mauritius	1	2	3	4	5
Others (Please Specify)	1	2	3	4	5

C4 How believable are efforts made by companies in Mauritius to protect the environment?

STATEMENTS	Very Believable	Somewhat	Not very	Not at all	Don't Know
Have a company or its products endorsed by environmental cause or organisation	1	2	3	4	5
Donating money to an environment cause or issue	1	2	3	4	5
Saying that the company is educating the public to take action to help protect the environment through brochures, seminars, videos, or special events	1	2	3	4	5
Saying that the company addresses environmental problems through all company policies, from manufacturing products to marketing	1	2	3	4	5

SECTION D: GREEN PRODUCTS (Cont'd)

D1 Have you ever heard of "Green"/Environment Friendly products?

Never Heard of				A Lot
1	2	3	4	5

D2 Where did you hear about "Green" products? (You may tick more than one answer)

- [ ] Television
- [ ] Radio
- [ ] Newspapers/Magazines
- [ ] Supermarkets
- [ ] School/University
- [ ] Other (Please Specify)

D3 Do you have a preference for "Green" /Environment Friendly products?

Whenever there is a choice	Sometimes	Seldom	Never	d4
1	2	3	4	5

D4 What percentage (Organic or non-organic) of the following products do you use? *(Please Tick ✔)*

	Only organic %	 %	Both Equally %	 %	Only Non-Organic %
1.Vegetables	100	75/25	50/50	25/75	100
2.Fruits	100	75/25	50/50	25/75	100
3.Eggs	100	75/25	50/50	25/75	100
4.Milk	100	75/25	50/50	25/75	100
5.Cheese	100	75/25	50/50	25/75	100
6.Bread	100	75/25	50/50	25/75	100
7.Cereals	100	75/25	50/50	25/75	100
8.Butter	100	75/25	50/50	25/75	100

Instructions to Interviewer

If respondents use any organic products take them through Question D5 & D6 on page 9 & 10.

If respondents do not use any organic, go to Section E on Page 11

SECTION D: GREEN PRODUCTS

D5 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Organically produced products…					
…taste nice	1	2	3	4	5
…are healthy	1	2	3	4	5
…are expensive	1	2	3	4	5
…are easily available	1	2	3	4	5
…are associated with an alternative lifestyle	1	2	3	4	5
…have an attractive appearance	1	2	3	4	5
…are environmentally friendly	1	2	3	4	5

D6 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1.I am not interested in organically produced products.	1	2	3	4	5
2.I am not satisfied with the variety of organically produced products offered by retailers.	1	2	3	4	5
3.I am so used to buying conventional products.	1	2	3	4	5
4.Supply for organically produced products is occasional only.	1	2	3	4	5
5.Organically produced products are no healthier than non-organic ones.	1	2	3	4	5
6.I have some doubts	1	2	3	4	5

concerning the methods used for organically produced products.					

D6 (Cont'd) How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

ATTITUDE STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
7.Buying organically produced products doesn't make any difference to the environment.	1	2	3	4	5
8.All foods contain pesticide residues even if they are organically produced.	1	2	3	4	5
9.Conventional products have a better appearance and are fresher than organically produced products.	1	2	3	4	5
10.I don't have the time to visit several stores to find all the products I want to buy.	1	2	3	4	5
11.I don't think there is any taste difference between organically produced products and conventional ones.	1	2	3	4	5
12.Prices for organically produced products are too high.	1	2	3	4	5

SECTION E: OTHER STATEMENTS

E1 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ECOLOGICALLY CONSCIOUS CONSUMER BEHAVIOR ITEMS (Cont'd)					
1. To save energy, I drive my car as little as possible.	1	2	3	4	5
2. I normally make a conscious effort to limit my use of products that are made of or use scarce resources.	1	2	3	4	5
3. I try to buy energy efficient household appliances.	1	2	3	4	5
4. I always try to use electric appliances (e.g. dishwasher, washer and dryer) before 9 a.m. and after 9 p.m.	1	2	3	4	5
5. I will not buy products which have excessive packaging.	1	2	3	4	5
6. When there is a choice, I always choose that product which contributes to the least amount of pollution.	1	2	3	4	5
7. I have tried very hard to reduce the amount of electricity I use.	1	2	3	4	5
8. If I understand the potential damage to the environment that some products can cause, I do not purchase these products.	1	2	3	4	5
9. I have switched products for ecological reasons.	1	2	3	4	5
10. I use a recycling center or in some way recycle some of my household trash.	1	2	3	4	5
11. I make every effort to buy paper products made from recycled paper.	1	2	3	4	5
12. I use a low-phosphate detergent (or soap) for my laundry.	1	2	3	4	5
13. I have convinced members of my family or friends not to buy some products which are harmful to the environment.	1	2	3	4	5
14. I have replaced light bulbs in my home with those of smaller wattage so that I will conserve on the electricity I use.	1	2	3	4	5
15. I have purchased products because they cause less pollution.	1	2	3	4	5
16. I do not buy products in aerosol containers.	1	2	3	4	5

SECTION E: OTHER STATEMENTS (Cont'd)

E1 (Cont'd) How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ECOLOGICALLY CONSCIOUS CONSUMER BEHAVIOR ITEMS (Cont'd)					
17. Whenever possible, I buy products packaged in reusable containers.	1	2	3	4	5
18. When I have a choice between two equal products, I always purchase the one which is less harmful to other people and the environment.	1	2	3	4	5
19. I buy toilet paper made from recycled paper.	1	2	3	4	5
20. I buy paper towels made from recycled paper.	1	2	3	4	5
21. I will not buy a product if the company that sells it is ecologically irresponsible.	1	2	3	4	5
22. I have purchased light bulbs that were more expensive but saved energy.	1	2	3	4	5
23. I try only to buy products that can be recycled.	1	2	3	4	5
24. To reduce our reliance on foreign oil, I drive my vehicle as little as possible.	1	2	3	4	5
25. I usually purchase the lowest priced product, regardless of its impact on society.	1	2	3	4	5
26. In general, price is one of the most important factor in my purchasing decisions.	1	2	3	4	5
27. In general, if a non-green product cost Rs 100, I will pay Rs 120 for a green product of the same kind.	1	2	3	4	5
28. If I like something and I want to purchase it, price is not a concern.	1	2	3	4	5
29. I read labels to see if contents are environmentally safe.	1	2	3	4	5
30. I buy products in packages that can be refilled	1	2	3	4	5
31. I would like to take hazardous waste to collection site.	1	2	3	4	5
32. Compost yard waste	1	2	3	4	5
33. I take own bags to supermarket	1	2	3	4	5
34. I contribute money to environmental causes	1	2	3	4	5
35. I volunteer for an environmental group	1	2	3	4	5

SECTION E: OTHER STATEMENTS (Cont'd)

E2 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly disagree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
PERCEIVED CONSUMER EFFECTIVENESS ITEMS					
1. It is worthless for the individual consumer to do anything about pollution.	1	2	3	4	5
2. When I buy products, I try to consider how my use of them will affect the environment and other consumers.	1	2	3	4	5
3. Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do.	1	2	3	4	5
4. Each consumer's behavior can have a positive effect on society by purchasing products sold by socially responsible companies.	1	2	3	4	5
5. Buying 'green' will force companies to become more environmentally aware.	1	2	3	4	5

E3 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly agree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ENVIRONMENTAL CONCERN ITEMS					
1. Plants and animals exist primarily to be used by humans.	1	2	3	4	5
2. We are approaching the limit of the number of people the earth can support.	1	2	3	4	5
3. To maintain a healthy economy, we will have to develop a steady-state economy where industrial growth is controlled.	1	2	3	4	5
4. The earth is like a spaceship with only limited room and resources.	1	2	3	4	5
5. Humans need not adapt to the natural environment because they can remake it to suit their needs.	1	2	3	4	5
6. There are limits to growth beyond which our industrialized society cannot expand.	1	2	3	4	5
7. The balance of nature is very delicate and easily upset.	1	2	3	4	5

SECTION E: OTHER STATEMENTS (Cont'd)

E3 (Cont'd) How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly agree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
ENVIRONMENTAL CONCERN ITEMS (Cont'd)					
8. When humans interfere with nature, it often produces disastrous consequences.	1	2	3	4	5
9. Humans must live in harmony with nature in order to survive.	1	2	3	4	5
10. Mankind is severely abusing the environment.	1	2	3	4	5
11. Humans have the right to modify the natural environment to suit their needs.	1	2	3	4	5
12. Mankind was created to rule over the rest of nature.	1	2	3	4	5

E4 How much do you agree with the following statements? (The degree of acceptance is measured by a five point scale from 1 to 5, where 1 means you "Strongly agree" with the statement while 5 means you "Strongly agree" with the statement.)

STATEMENTS	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
LIBERALISM ITEMS					
1.The government should control the profits of the big industries.	1	2	3	4	5
2. If unemployment is high, the government should spend to create jobs.	1	2	3	4	5
3. A government administered health insurance program is necessary to insure that everyone receives adequate medical care.	1	2	3	4	5
4. I am for less government regulation of business.	1	2	3	4	5
5. I am for revising the tax structure so that the burden falls more heavily on corporations and persons with large incomes.	1	2	3	4	5

SECTION F: PRODUCTS

F1 When did you last purchase the product in the following product category?
(Please tick as appropriate)

PRODUCTS	Today	Yesterday	Within last week	Within last month	Within last three months	Half year or more	Never purchase
Battery	1	2	3	4	5	6	7
Electronic products	1	2	3	4	5	6	7
Drinks	1	2	3	4	5	6	7
Food	1	2	3	4	5	6	7
Clothes	1	2	3	4	5	6	7
Sprays (e.g hair sprays or gel)	1	2	3	4	5	6	7
Paper	1	2	3	4	5	6	7
Pen	1	2	3	4	5	6	7
Correction Fluid	1	2	3	4	5	6	7
Newspaper	1	2	3	4	5	6	7
Books	1	2	3	4	5	6	7
Paint	1	2	3	4	5	6	7

F2 How likely are you to buy green products in the following product category?
(Please tick as appropriate – 0% means "No Chance", 20% means "Slight Possibility", 40% means "Fair Possibility", 60% means "Good Possibility", 80% means "High Probability" and 100% means "Certain")

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
PRODUCTS	No Chance		Slight Possibility		Fair Possibility		Good Possibility		High Probability		Certain
Battery	1	2	3	4	5	6	7	8	9	10	11
Electronic products	1	2	3	4	5	6	7	8	9	10	11
Drinks	1	2	3	4	5	6	7	8	9	10	11
Food	1	2	3	4	5	6	7	8	9	10	11
Clothes	1	2	3	4	5	6	7	8	9	10	11
Sprays (e.g hair sprays or gel)	1	2	3	4	5	6	7	8	9	10	11
Paper	1	2	3	4	5	6	7	8	9	10	11
Pen	1	2	3	4	5	6	7	8	9	10	11
Correction Fluid	1	2	3	4	5	6	7	8	9	10	11
Newspaper	1	2	3	4	5	6	7	8	9	10	11
Books	1	2	3	4	5	6	7	8	9	10	11
Paint	1	2	3	4	5	6	7	8	9	10	11

F3 Any other comments or suggestions that you would like to add?

____
____
____
____

THANK YOU FOR YOUR CO- OPERATION AND YOUR ENDEAVOUR IN PROMOTING GREEN CONSCIOUSNESS IN MAURITIUS

APPENDIX F

Currently employed
population 12 years of age and over
by geographical district, major occupational
group and sex (2000)

Table CA1 - Resident population 12 years of age and over by geographical location, sex and current activity status

Country, Island, Geographical District, Municipal Ward or Village Council Area & sex	Total	Current activity status											
		Currently active					Not currently active						Not stated
		Total	Employed	Unemployed			Total	House hold duties	Studies	Disability	Retire ment	Other and Not stated	
				Total	First job seekers	Worked before							
PORT LOUIS DISTRICT - Wholly urban													
Both sexes	101,382	51,991	46,816	5,175	3,252	1,923	49,152	27,218	11,759	3,191	5,949	1,035	239
Male	49,958	36,288	32,744	3,544	2,143	1,401	13,563	389	6,097	1,701	4,773	603	107
Female	51,424	15,703	14,072	1,631	1,109	522	35,589	26,829	5,662	1,490	1,176	432	132
PAMPLEMOUSSES DISTRICT - wholly rural													
Both sexes	96,468	53,731	48,889	4,842	3,321	1,521	42,440	22,835	11,991	2,812	4,013	789	297
Male	47,495	35,742	32,696	3,046	2,026	1,020	11,551	328	6,171	1,495	3,132	425	202
Female	48,973	17,989	16,193	1,796	1,295	501	30,889	22,507	5,820	1,317	881	364	95

RIVIERE DU REMPART DISTRICT - Wholly rural												
Both sexes	78,314	42,706	39,014	3,692	2,698	994	35,459	19,302	9,172	2,532	3,890	563	149
Male	38,711	29,045	26,580	2,465	1,751	714	9,575	350	4,697	1,340	2,807	381	91
Female	39,603	13,661	12,434	1,227	947	280	25,884	18,952	4,475	1,192	1,083	182	58
FLACQ DISTRICT - Wholly rural													
Both sexes	99,420	53,470	48,228	5,242	3,924	1,318	45,812	25,194	11,724	2,963	5,234	697	138
Male	49,658	37,724	34,218	3,506	2,544	962	11,841	406	5,969	1,609	3,438	419	93
Female	49,762	15,746	14,010	1,736	1,380	356	33,971	24,788	5,755	1,354	1,796	278	45
MOKA DISTRICT													
Both sexes	60,151	33,488	30,489	2,999	2,071	928	26,584	13,854	7,225	1,589	3,425	491	79
Male	29,530	22,289	20,376	1,913	1,284	629	7,196	170	3,747	775	2,251	253	45
Female	30,621	11,199	10,113	1,086	787	299	19,388	13,684	3,478	814	1,174	238	34
GRAND PORT DISTRICT - Wholly rural													
Both sexes	83,931	46,830	41,992	4,838	3,397	1,441	37,011	19,125	9,698	2,280	5,324	584	90
Male	41,537	31,288	28,206	3,082	2,170	912	10,195	272	5,107	1,172	3,309	335	54
Female .	42,394	15,542	13,786	1,756	1,227	529	26,816	18,853	4,591	1,108	2,015	249	36
SAVANNE DISTRICT - Wholly rural													
Both sexes	52,596	29,963	27,378	2,585	1,751	834	22,532	11,066	5,811	1,556	3,673	426	101
Male	25,814	19,560	17,836	1,724	1,134	590	6,185	92	2,959	830	2,087	217	69
Female	26,782	10,403	9,542	861	617	244	16,347	10,974	2,852	726	1,586	209	32

PLAINES WILHEMS DISTRICT												
Both sexes	291,026	159,098	146,064	13,034	7,881	5,153	130,781	62,948	39,518	7,301	19,062	1,952	1,147
Male	142,121	101,498	93,520	7,978	4,569	3,409	40,026	811	20,311	3,952	14,053	899	597
Female	148,905	57,600	52,544	5,056	3,312	1,744	90,755	62,137	19,207	3,349	5,009	1,053	550

BLACK RIVER DISTRICT													
Both sexes	47,328	28,603	26,376	2,227	1,293	934	18,636	9,425	5,073	1,156	2,431	551	89
Male	23,737	18,213	16,771	1,442	814	628	5,477	254	2,615	664	1,625	319	47
Female	23,591	10,390	9,605	785	479	306	13,159	9,171	2,458	492	806	232	42

APPENDIX G

Final Quotas

	Active										Not Currently Active			
	Major occupational group													
Country, Island, Geographical District, and Sex	Legislators, senior officials and managers	Professionals	Technicians and associate professionals	Clerks	Service workers & shop sales workers	Skilled Agricultural & Fishery Workers	Craft & related trades workers	Plant & machine operators & assemblers	Elementary occupations	Unemployed	Household duties	Studies	Disability	Retirement
ISLAND OF MAURITIUS														
Male	13	10	25	19	50	15	84	49	71	32	3	64	15	42
Female	4	5	18	24	20	2	14	42	41	18	231	60	13	17
PORT LOUIS DISTRICT														
Male	1	1	3	2	6	1	10	5	7	4	0	7	2	5
Female	0	0	2	3	2	0	1	3	3	2	30	6	2	1
PAMPLEMOUSSES DISTRICT														
Male	1	1	3	2	6	2	8	6	8	3	0	7	2	3
Female	0	0	2	2	2	0	2	6	4	2	25	6	1	1

	Active													
	Major occupational group										Not Currently Active			
Country, Island, Geographical District, and Sex	Legislators, senior officials and managers	Professionals	Technicians and associate professionals	Clerks	Service workers & shop sales workers	Skilled Agricultural & Fishery Workers	Craft & related trades workers	Plant & machine operators & assemblers	Elementary occupations	Unemployed	Household duties	Studies	Disability	Retirement
RIVIERE DU REMPART DISTRICT														
Male	1	1	2	1	4	2	7	5	6	3	0	5	1	3
Female	0	0	1	1	2	0	2	4	4	1	21	5	1	1
FLACQ DISTRICT														
Male	1	1	2	2	6	2	9	5	10	4	0	7	2	4
Female	0	0	1	1	2	0	1	4	5	2	28	6	2	2
GRAND PORT DISTRICT														
Male	0	0	2	1	4	2	7	5	10	3	0	6	1	4
Female	0	0	1	1	1	0	2	5	4	2	21	5	1	2
SAVANNE DISTRICT														
Male	0	0	1	1	3	1	5	3	6	2	0	3	1	2
Female	0	0	1	1	1	0	1	4	3	1	12	3	1	2

Country, Island, Geographical District, and Sex	Active										Not Currently Active			
	Major occupational group													
	Legislators, senior officials and managers	Professionals	Technicians and associate professionals	Clerks	Service workers & shop sales workers	Skilled Agricultural & Fishery Workers	Craft & related trades workers	Plant & machine operators & assemblers	Elementary occupations	Unemployed	Household duties	Studies	Disability	Retirement
PLAINES WILHEMS DISTRICT														
Male	7	6	11	7	16	3	27	14	14	9	1	23	4	16
Female	2	3	9	12	8	0	4	11	11	6	69	21	4	6
MOKA DISTRICT														
Male	1	1	2	1	3	1	5	4	6	2	0	4	1	2
Female	0	0	1	1	1	0	1	3	3	1	15	4	1	1
BLACK RIVER DISTRICT														
Male	1	0	1	1	2	1	5	3	5	2	0	3	1	2
Female	0	0	1	1	1	0	1	3	4	1	10	3	1	1

APPENDIX H

List of Interviewers

NAME	# OF QUESTIONNAIRE
Dulsing Roy Ashvinprakash	37
Gujadhur Amreetsingh	42
Koonjul Naresh	37
Bissessur Sashiraj	35
Dabypersad Kailash	36
Jhuputroy Meetunsingh	38
Gungadine Jaysingh	37
Dhorah Sachin	37
Ally Hossen Nazia	36
Ghoorah Teelotma	35
Heeroo Heetal	33
Bismohun Ceewantee	36
Ip Fanny	32
Catherine Capdor	36
Limbada Anisha	37
Cotte Michel Hubert	45
Varsha Ramdin	36
Shafeeq Peerally	36
Sharmila Pudaruth	36
Nadaraj Mathuvirin	36
Farahnaaz Saib	37
Bilkis Jihaan Mamode	36
Aisha Noordaully	36
Géraldine L'ecluse	36
Appana Urmila	45
Bamma Preeyam	35
Ritesh Ubhee	42

APPENDIX I

Interviewer Specific Quotas

		Male	Female	Total	Percentage	Team of	Int1	Int2	Int3	Int4	Int5	Int6	Int7	Int8	Int9
1	Port Louis	57	54	111	11.1	3	37	37	37						
2	Pamplemouses	52	53	105	10.5	3	35	35	35						
3	Riviere Du Rempart	41	43	84	8.4	2	42	42							
4	Flacq	55	54	109	10.9	3	37	36	36						
5	Moka	33	32	65	6.5	2	33	32							
6	Grand Port	45	45	90	9	2	45	45							
7	Savanne	28	30	58	5.8	2									
8	Black River	27	27	54	5.4	1	38	37	37						
9	Plaines Wilhems	158	166	324	32.4	9	36	36	36	36	36	36	36	36	36
				1000											

Factor Items	Loadings	Eigenvalues	Percentage of explained varience
Factor 1 - Pure Green Militant Factors		8.706	24.875
I have convinced members of my family or friends not to buy some products which are harmful to the environment.	0.6129		
I use a recycling center or in some way recycle some of my household trash.	0.6041		
I use a low-phosphate detergent (or soap) for my laundry.	0.5830		
I make every effort to buy paper made from recycled paper.	0.5385		
I do not buy products in aerosol containers.	0.4868		
I have purchased products because they cause less pollution.	0.4728		
I have replaced light bulbs in my home with those of smaller wattage so that I will conserve on the electricity I use.	0.4712		
I try only to buy products that can be recycled.	0.4340		
I always try to use electric appliances (e.g. dishwasher, washer and dryer) before 9 a.m. and after 9 p.m.	0.4073		
Factor 2 - Combative Green Churning Factors		1.722	4.920
If I understand the potential damage to the environment that some products can cause, I do not purchase these products.	0.6828		
When there is a choice, I always choose that product which contributes to the least amount of pollution.	0.6567		
	0.5279		
I have switched products for ecological reasons.	0.4839		
I have tried very hard to reduce the amount of electricity I use.			
When I have a choice between two equal products, I always purchase the one which is less harmful to other people and the environment.	0.4784		
I will not buy a product if the company that sells it is ecologically irresponsible.	0.4367		
Factor 3 - Energy Reducers Recycluser Factors		1.672	4.777
I try to buy energy efficient household appliances.	0.6695		
I normally make a conscious effort to limit my use of products that are made of or use scarce resources.	0.5618		
Whenever possible, I buy products packaged in reusable containers.	0.4755		
I have purchased light bulbs that were more expensive but saved energy.	0.4458		
Factor 4 - Paper Recycluser Factors		1.544	4.411
I buy toilet paper made from recycled paper.	0.8349		
I buy paper towels made from recycled paper.	0.8192		
Factor 5 - Green Demonstrator Factors		1.383	3.952
I volunteer for an environmental group	0.7929		
I contribute money to environmental causes	0.7779		
I take own bags to supermarket	0.5652		
Factor 6 - Waste Management Factors		1.266	3.618
I would like to take hazardous waste to collection site.	0.7812		
I try to compost yard waste	0.7327		
I buy products in packages that can be refilled	0.4788		
Factor 7 - Petrol Use Reducer Factors		1.208	3.450
To reduce our reliance on foreign oil, I drive my vehicle as little as possible.	0.8010		
To save energy, I drive my car as little as possible.	0.7299		
Factor 8 - Green Price Forfeiter Factors		1.179	3.367
If I like something and I want to purchase it, price is not a concern.	0.5845		
In general, if a non-green product cost Rs 100, I will pay Rs 120 for a green product of the same kind.	0.5205		
I read labels to see if contents are environmentally safe.	0.4603		
Factor 9 – Price Supreme Factors		1.108	3.166
I usually purchase the lowest priced product, regardless of its impact on society.	0.7468		
In general, price is one of the most important factor in my purchasing decisions.	0.7309		
Total Variance Explained			56.538

Table xx: Factor Schedule for Overall Consumer Ecologically Conscious Consumer Behaviour Items.

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