

# Consumer's Attitude and Purchase Intention towards Green Products in the FMCG Sector

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### Abstract

This research study is on the green marketing but specifically on consumers' behavior and purchase practice of green products. It has now been a global concern to protect environment from pollution caused by humans. With this vital information through the research provided by different researchers and expertise, companies have understood the importance and value of green marketing in business also. This information is the basis of literature of this research study.

The objective of this research paper had looked into and explored the influence of four traditional marketing mix elements, satisfaction and word of mouth (WOM) on attitude and purchasing intentions of consumers on eco-friendly products specifically fast moving consumer goods (FMCG) or non-durable ones. The purpose of this study is to find out the behavior of consumer toward green product and collect information on the same.

Our findings indicate that consumers already buying eco-friendly products and those who are satisfied by the previous purchases were willing to repeat purchases. Indeed satisfaction goes with purchase intention. Furthermore the importance of WOM and Advertisement about green products the fact that consumers believe in green claim explain the variance of the purchase intention. Positive attitudes concerning willingness to pay an extra price for green products are also correlated with purchase intention. However we discovered also that positive attitudes towards green products do not always lead to action i.e. purchase of these products. Our findings demonstrated that there were differences in attitudes and purchase intention toward green products between mainly the women and men.

### Keywords:

Green marketing, Marketing-mix, Word of mouth, Consumer satisfaction, Consumer attitude, Purchase intention

### Introduction

The objective of this introduction is to present the general background about green marketing. While globalization process continues in its full speed across the world, this process has also brought some problems with it. Leading one of these problems is environmental

problems that affect all living beings negatively. These aforementioned environmental problems have started to come to the agenda more and more in the recent years and people have started to talk these negativities. Consumers now have worries about the future of the world and as results of this mostly prefer environment friendly products. In return to these attitudes of the consumers, companies have started to form their marketing strategies so as to appeal increasing awareness of this environment-friendliness. These marketing strategies, named as green marketing, have caused companies to adopt green policies in their pricing, promotion, product features and distribution activities.

Green marketing term was first discussed in a seminar on “ecological marketing” organized by American Marketing Association (AMA) in 1975 and took its place in the literature. In this seminar where the impact of marketing on natural environment was analyzed with the contribution of academicians, bureaucrats and other participants, ecological marketing concept was defined as follows: Studies regarding adverse or positive impacts on environmental pollution, energy consumption and consumption of other resources as result of marketing.

The growth of green marketing research dates back to 1980s when there was emergence of concept of green marketing. Early literature indicates green marketing to be an approach which indicated signs of shift in consumer attention to green product. At that time green marketing research concentrated on the shift in consumer consumption of green products. There was a great deal of empirical research carried out to identify interest among consumers in using and purchasing green products. Green marketing approach was researched from a corporate interest point of view in the early 90s. Research indicated that 92% of MNCs from Europe changed their products to address growing concerns of environmental pollution. Green marketing research has come a long way since then. Consumers from the developed countries including USA and Western Europe were found to be more conscious about the environment. Research in the last decade has indicated that consumer are aware and are willing to pay more to "go green". There is limited research which has examined the impact of green marketing on consumers from emerging economies like India.

Green marketing serves two purposes:

- In order to develop goods that can appeal to the consumer, reasonably affordable prices and environment-friendly products causing minimal damage are required.
- In order to reflect an image of high quality, environmental sensitivity and hence production of products compatible with environment are required.

Green marketing has rose attention due to the environmental deterioration and it becomes a global problem. Nowadays, the American Marketing Association (AMA) divides the definition of green marketing in three aspects (marketingpower.com): as “the marketing of products that are presumed to be environmentally safe” (retailing definition) as “the development and marketing of products designed to minimize negative effects on the physical environment or to improve its quality” (social marketing definition) and finally as “the efforts by organizations to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns”(environments definition). Companies are using green marketing for many reasons as green policies are profit making; the business world is more and more implicated into social responsibilities. Furthermore consumers are changing their attitude and due to government pressure and competition it is essential for the firms to adopt green marketing strategies. According to some press release and research survey, the Consumer packaged goods (CPG) or FMCG sector should follow 12 trends among these trends some of them concern the environment such as “redefining natural” or “sustainability” such as respect the regulation to say that a product is natural or not and for example continue to reduce packaging (mintel.com). These trends show that the FMCG sector is going to change and become greener.

An eco-friendly product is supposed to reduce the impact of its consumption on the environment thanks to the use of making-processes, components and recycling techniques which are less harm for the natural environment than those of conventional products. The market of green products is more and more increasing. In this thesis “eco-friendly” as well as “green” products will be used to mention environmental products.

### **Discussion of Problem**

The deterioration of the environment led to the adoption and the development of consciousness of consumers' attitude towards eco-friendly products in order to preserve the planet. They therefore, deem it expedient to take measures towards protecting the environment which has become their personal attitude towards eco-friendly foods. Consumers patronize the products and their aims are to make sure the contribution is supporting sustainable environment and contribution the guiding of the climate change.

However, it has become global struggling to achieve the purpose of the environmental protection so companies are using various means to persuade the consumers' segments who are environmentally conscious to change their attitudes from the conventional products towards green products and also satisfy their needs. Some of the previous researchers have emphasized on the four concepts on the

“demographics, green lifestyle, green attitudes and green behavioral intentions in the context of the low involvement product category”.

There are many studies about the consumer behavior concerning the environment but most of them are concentrated on one or two marketing-mix elements and they do not make a link with the factors that companies use to make consumers buy green products and their attitudes towards these products. Furthermore, previous findings concerning consumers' attitudes towards eco-friendly products are conflicting e.g. some studies found that consumers think conventional products have high quality compared to eco-friendly ones but in other studies results show the opposite. In some studies we can find that consumers are willing to pay more for green products and in other studies it is not the case or the extra price has to be low.

These finding led us to make up our own opinion about this subject: consumers' attitudes toward green products and purchase behavior. Indeed the aim of this study is to examine factors which influence the purchase of eco-friendly products in a broad way, in order to demonstrate what factors used by companies from the marketing-mix elements (the product, the price, the place and the promotion) have an influence on green purchase behaviors and if some are more important than others.

### Research Gaps

Many literatures and surveys which examine the consumer behavior cover on different subjects and disciplines and determine the factors influencing the green marketing attitudes towards purchase of the products.

For example the impact of price consciousness, the quality consciousness, the environmental consciousness and the brand loyalty have been studied in a different survey. But this survey did not take into account other factors such as the promotion of the eco-friendly products or the influence in the purchase decision of word of mouth. The purpose of this paper is to provide an overview of the green marketing related issues and models for the attitude of the consumers towards eco-friendly products especially in the FMCG sector. Some approaches tried to suggest the consumer behavior on green marketing could be explained by investigating consumers' attitudes towards their purchasing behavior.

Our purpose is to look into the green marketing in the view of the consumers' attitudes towards purchase of green products. Therefore we will analyze the four marketing mix elements, word of mouth and satisfaction and how they influence the attitudes of the consumers to make purchases of the FMCG eco-friendly products.

This research could have significant and vital impact on the

readers as far as the role of consumer plays in the green marketing on the FMCG research and the safeguarding of the earth from depletion resources. Further, it will help the companies to know which marketing strategies should be adopted to better understand consumers need in terms of green and eco products.

### Purpose of Study

The purpose of conducting the research is to identify the factors used by firms (marketing mix elements) and from consumers (word of mouth and satisfaction) to influence them to purchase eco-friendly products.

Taking consumers point of view, we have tried to analyze the factors which influence them to develop attitude towards purchase of eco-friendly products.

The different models of attitude will be used to analyze the perceptions of the consumers which will link with the other factors.

In a more specific view our research questions can be described as the following:

RQ1: Which factors in the marketing-mix influence consumers to purchase eco-friendly products? Do other factors such as word of mouth and satisfaction play a role? To what extent these factors influence consumers to purchase green products?

RQ2: Do positive attitudes towards eco-friendly products lead to purchase intention?

### Limitations

This paper only focuses on few aspects of each factors used by companies that can have an influence on green products' purchase and what consumers' attitudes towards these products. The researches concentrate on the consumer point of view only as it is often the case in previous studies about green attitudes and purchase behaviors. In this particular study, we will not focus on durable goods such as electronic ones and cars because the decision making process is more complex and the purchase of these products is not so frequent. The research approach will only be focused on the FMCG sector, on tangible products that consumers regularly buy and which have a short life expectancy. These products will be used in a general way; no particular product will be analyzed. The aim is to focus on attitudes towards FMCG green products but not on a special brand in order to generalize the study. Different types of products in the FMCG sectors will be analyzed in order to see if there are differences inside the FMCG sector: For example between the consumers' attitude towards green food or green cleaning products. For example products having an important impact on the environment are more purchased such as cleaning products.

Concerning the data collection, the research approach will be focused on metro population.

### **Research Outline**

Our research process is composed of six parts. The introduction provides to the reader a background about the topic and our research problem. The literature review will present the secondary data such as articles from scientific journals, books and an overview of the theoretical framework that outline the theories and literature relevant to this study. The next part will cover the methodology; where research approach, design and data collection will be presented. Then empirical findings of the quantitative study will be submitted, thus the analysis and the discussion of the research study. Finally conclusion and further researches and recommendations will be outlined.

### **Literature Review**

Today the concept of sustainability is almost ubiquitous by showing application in corporate strategy, consumer choice, student education and academic research. The need for sustainable business practices by corporations around the world is identified to be a result of overall increase in the consumer awareness of lack of environmental protection and social inequities. Over the last decade environmentalism has emerged to be a vital aspect due to increasing issues related to acid rains, depletion of the ozone layer, and degradation of the land and many more pressing environmental issues. This resulted in increase in consumer concern with regards to restoration of ecological balance by presenting demands for eco-friendly products in countries around the world. The research on environmental consumerism is a well-researched topic with the first research dating back to the 1970s. There has been extensive growth in interest exhibited by marketing academics as well as practitioners with regard to the impact of marketing on promoting and maintaining ecological. There is a great deal of depletion of non-renewable energy resources which accompanied by generation of non-biodegradable pollutants has led to an increase in consumer and corporate awareness of green marketing issues.

### **Green Marketing and Consumers**

Environmental marketing, more popularly known as green marketing or sustainable marketing can be defined as the effort by a company to design, promote, price and distribute products in a manner which promotes environmental protection. Green marketing has been defined as 'all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment' by Polonsky (2011). Today green marketing is a vital component of marketing research which began due to increasing media exposure and

pressure on firms to present eco-friendly behavior. The growth in green marketing over the years has been promoted by adoption of product packaging and presenting to the public these improvements. Over the years there has been a subtle shift from practicing environmental marketing practices as a result of compulsion identified as a result of legislations and pressure from environmental groups to genuine efforts to improve sustainable marketing plans and behaving in an eco-responsible manner.

The growth of green marketing and green consumer is "perhaps the biggest opportunity for enterprise and invention the industrial world has ever seen". A green consumer can be identified to be one who avoids any product which may harm damage to any living organism, cause deterioration of the environment during process of manufacturing or during process of usage, consume a large amount of non-renewable energy, involves unethical testing on animals or human subjects.

There have been a number of different factors which are instrumental in promoting green consumers to purchase green products. Extensive research over the years identify that heightened awareness of green issues; increased level of information availability on environmental sustenance; green advertising by corporations; increased concern for the environment; increase in popularity of green products by social and environmental charities as some factors. This overwhelming increase in the overall environmental consciousness among different consumer profile there have been efforts undertaken by firms to "go green" by presenting the concept of corporate environmentalism. Today green development are identified as opportunities by business firms as opportunities to improve their marketing niche rather than just actions which need to be carried out.

### **Global Scenario in Green Marketing**

'Green' is the buzzword that is gaining popularity among the current generation. A number of businesses right from private entities such as Wal-Mart trying to push the concept of organic food to public entities like the London governments congestion charge are all aimed at improving the environment by promoting 'Green' products and issues. 87% of people from various nations like Brazil, Canada, China, France, Germany, India, the UK and the US have shown an interest in reducing their impact on the environment, according to a survey by. However, showing interest and actually acting on the interest are two different deeds. This fact is proved by a survey that was conducted on a global scale, which was repeated in 2008 with the help of BBC World, which showed that not a lot of people were actually doing something to move their lifestyle to a green lifestyle.

There is a growing need to switch over to green products and

services by both marketers and consumers. Even though the shift to 'green' will be expensive to both the consumers as well as businesses, it will most definitely pay off in the long run. There are a number of literatures that focus on various aspects related to green marketing and also delves into the various inter relationships between the customers attitudes and environmental strategies in relation to the organizations use of marketing. Environmental issues are addressed in green marketing efforts. The core idea of green marketing is to create awareness among people on the environmental issues and how consumers would be helping the environment if they switch over to green products. Thus green marketing aims to provide more information to people and also gives those more choices to switch over to green lifestyle.

### **Consumer Attitude towards the Environment**

Environmental attitude is identified as the judgment an individual has towards the protection and promotion of the environment. Conflicting results have been published with regards to the relationship that currently exists between attitude towards the environment and the resultant behavior. There has been other empirical research which has concluded that the relationship is moderate at best. Green marketing depends on the consumer's attitude towards the environment. If there is no strong demand for such a shift in consumer attitude, businesses will not put in the extra effort to move towards introducing green products and services. Based on this evidence three different aspects can be arrived at in terms of identifying the relationship between environmental attitude and behavior:

- 1) Need for more specific studies identifying the relationship between attitude and behavior.
- 2) Need to identify other variables which have a mediating effect on both these attributes.

### **Marketing-Mix**

#### **Definition**

According to Kotler and Keller integrated marketing can be defined as "mixing and matching marketing activities to maximize their individual and collective efforts. The Mc Carty classification is the most important basis of marketing. This classification also called marketing mix is composed of four elements: product, price, promotion and place (Kotler and Keller, 2009, p. 63). Marketing-mix modeling permits marketers to understand in which way they have to invest in the 4P, such as "what strategies they have to elaborate?" "How to allocate resources for each factor?" in order to satisfy customers' expectations (Kotler and 2009, pp. 146-146). In our study we want to demonstrate that each of these four elements influences consumers to purchase eco-friendly products via development of attitudes

towards these products.

Marketing mix (product, place, price and promotion) has become very vital in the production of eco-friendly products due to the environmental concern of consumers. However, Chitra (2007, p. 174) identified "green marketing mix as product, price, place promotion, process, people and physical distribution". Chitra (2007, p. 174) summarized, and explained them and the product to produce is to provide healthy consumption, place as the availability of the products and its awareness, price as the value of the product or service produced, the promotion of eco-friendly approach in the utilization resources and awareness of pollution, physical distribution could be involved in the storage and other logistics should temper or harm to the environment Finally, people are the employees and customers should have eco-friendless or eco mindset in the production and consumption in order to achieve green marketing objectives. They are very important elements of marketing to safeguard or preserve the environment due to the process of the eco-products and final consumption.

#### **Product**

The product includes "the total bundle of utilities (or benefits) obtained by consumers in the exchange process". The quality of a product, its package, its functionalities, and its design are one of the most important features in the product mix. In our study we will mainly focus on the product quality and the package of green products.

#### **Product quality**

The American Society for Quality Control defines quality as "the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs" (Kotler, 2009, p. 169). Indeed quality permits to satisfy customers' expectations. According to Ottman (2002) 42% of people think that "green products don't work as well as conventional ones".

#### **Packaging**

During the consumer decision making the five stages are sometimes not followed ("problem recognition, information search, evaluation of alternatives, product choice and outcome") for example when the consumer buys a product on impulse, his decision is focused on "environmental cues" and it is called the "behavioral influence perspective" in this case the information on packaging has an important role to play because it is the first thing that the consumer sees.

Many retailers such as L'Oreal, Procter and Gamble are investing more and more money in the production of eco-friendly products. For example Procter and Gamble reduced the size of its packaging or some detergents are now more concentrated to save money on the packaging or for example instead of selling toothpaste in a cardboard box marketers

sell it just with the tube.

Previous studies such as those of Wannimayake and Randiwela or Vernekear and Adhwa showed that product and package have an important impact during the purchase decision of green product from the FMCG sector. However these surveys were made in countries such as Sri Lanka or India so according to cultural differences it can be difficult to generalize.

According to Chatterjee consumers buy eco-friendly products which have a high impact on the environment (2009, cited in Rhabar and Wahid, 2011, p. 75). In a study made on Malaysian consumers in 2010, Rhabar and Wahid demonstrated that these consumers bought more green products such as cleaning products or pesticides they are considered as non-eco-friendly. Furthermore, Chitra showed in a survey made on 60 consumers that among green products such as food, cosmetics, medicines and furniture, most of consumers are “fully aware of eco-friendly food, and “partially aware” of cosmetics and medicine (2007, p.183). However in our study we will focus on green products sold in supermarket such as food, cosmetic/healthcare products cleaning product and others.

The product performance, quality, image and taste are vital to the green consumer especially detergent eco- friendly products because the greenness alone is not adequate to influence the consumer attitude to make purchases. Highlight the benefits gives value to the products and can determine consumer's choice (Wong et al, 1996, p. 269).

### **Price**

According to the AMA, the price is “the formal ratio that indicates the quantities of money goods or services needed to acquire a given quantity of goods or services (marketingpower.com).

Some of consumers view the price of eco-friendly products as more expensive than the conventional ones (Chang, 2011, p. 20) and others view it not due to the healthy part of the products. The benefits of the products make some of the consumers go extra to pay more for the products. They believe that it will preserve the deterioration of the earth so spending or bearing extra cost is worthy of the cause.

Price is perceived by consumers as a sign of quality (Kotler and Keller, 2009, p. 421). This belief about the existence of a price-quality relationship is pervasive (Solomon et al., 2010, p. 343) because it is not always true that the more a consumer pays for a product the more it is a good quality product, indeed the price is not the only attribute of a product.

### **Promotion**

According to Kotler and Keller (2009, p. 63) promotion involves “sales promotion, advertising, sales force, public

relations and direct marketing”. However in our study we will mainly focus on advertising because our survey deals with attitudes and purchase intentions of green products that consumers can find in a supermarket and we suppose that other elements from promotion such as sales force or public relations have low importance in supermarkets, indeed people do not need much help (sales force) when they shop everyday products.

Advertising is an element from marketing communication mix and can be defined as “any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor” (Kotler and Keller, 2009, p.512). It permits dissemination of information to consumers and creates awareness of products. Promotion involves the means of a “company communicates with its target groups and stakeholders to its product or a company as a whole” (Patrick et al. 2010, p. 3). Consumers are concerned about the promotion of eco-friendly products when they think that it is the preservation or cause deserving to curb the environmental deterioration (Ann et al. 2012 p. 96). For example according to a survey made on 238 students in India, 96% of them agree with the statement: “I will prefer promotion campaign that protect environment” (Purohit, 2011, p. 95). “Green advertising is an advertising that claims the advertised products or services are environmental friendly or that their production process conserves resources and energy”.

Promotion of eco-friendly products contribute to consumers' awareness of the green alternatives. These elements help the consumers to know where the environmentally products are. Advertising encourages consumers' purchase decisions because it develops eco-friendly products' concern and the willingness to buy is important as well as where to buy it.

Green advertising can be varied in addressing issues from the “environmental issues, environmental friendliness of the products, corporate image campaigns and emphasis on the environmental credential of large companies, to public campaigns promoting environmental responsible behaviors” (Hartmann and Apaolaza-Ibanez, 2009, p.717) Advertising plays essential role in the green marketing. Since advertising is a broad topic on its own we would narrow the research on the consumer's views and roles advertising play to influence consumers to make purchases of eco-friendly products.

Advertising can place a green product on appeal to differentiate a product from the conventional products. The advertising on appeal on the product can be on emotional that would stress on the aspects of the product on the environmental attributes and functions (Schuhwerk and Lefkoff-Hagius, 1995, p.46). The advertising on the appeal is vital because it would draw the attention on the target

consumers to the eco-friendly products. It has the potential to influence the consumers due to the emotional appearance which can result to action. It can lead to enhance the consumer recognition and recall for identification of the products in the store due to the attention-getting feature of the appeal. Furthermore according to a European report made by the Gallup organization, 30% of the European think that the best way for retailers to promote green products is to give them more information about these products (Flash Eurobarometer, 2009, p.6). There is also an argument that consumers, who are highly involved in the green marketing, are less affected by the advertising appeal which has not effect on their purchasing intention since they have been much more grabbed to the products. However, the green appeal is significantly persuasive on those who are less involved in the environment (Chitra, 2007, p.175). This is the review that the environmental concern consumers do buy the eco-friendly products for the purpose of the environment which are not influenced by the advertising appeal rather the non-green or environment concern needs heavily advertising in order to change their attitude towards them positively.

Advertising of the green products as safe for the environment influences the consumer's attitude to purchase the products, for instance, "more than half of the Americans say that they have purchased a product because the advertising or label indicated that it was environmental safe or biodegradable (Ginsberg and Bloom, 2004 p.84). Advertising cannot influence the consumer's attitude without highlighting the attribute of the green product.

### **Place**

This marketing mix element appears when "firms decide the most effective outlets through which to sell their products and how best to get them here" (Blackwell et al, 2006, p.49). Kotler and Keller define the place as including channels, coverage, assortments, location and inventory (2009, p.62). It can also be defined as the process of transporting the product or service to the customer. This involves the availability of the product and transporting them to the selecting wholesalers and retailers (Patrick et al, 2010, p. 3). Furthermore a point of purchase is "the location where the purchase is made" (Kotler and Keller, 2009, p. 788) but there are two levels of point of purchase (POP): macro level include the mall, the city, the market and the micro level include the interior of the store where the display is also called point of sale (POS) (investopedia.com). However in this study assortment and coverage in term of accessibility, availability of green products will only be considered, due to fact that we are interested about FMCG products that consumers can find in supermarkets. Placement of the green products in the store can create awareness for green conscious consumers' to have better options for them to

purchase the products.

### **Word of Mouth**

The word of mouth (WOM) is "the informal transmission of ideas, comments, opinions, and information between two people, neither one of which is a marketer". Two subjects are involved in WOM one who "gains information about behaviors and choices": the receiver and the second who "increases his/her confidence in the personal product or behavior choice by persuading others to do the same" (Blackwell et al., 2006, p. 533).

WOM gives reliable and trustworthy information about products sometimes more than the formal communication. "The more positive information consumers get about a product a product from peers, the more likely they will be to adopt the product". Furthermore WOM permits to reduce the uncertainty about the choice of a product and also to reassure the consumer he/she makes a good choice. It is an efficient marketing, for instance, "80% of all buying decisions are influenced by someone's direct recommendations" (Solomon et al. 2010, 402). This shows the vital role of the word of mouth in promoting particular products to the consumers.

WOM has three characteristics, credible, personal and timely, indeed consumers trust more their family and friends than sellers for example, it is often an "intimate dialogue" evoking personal experience and finally it happens when people "want it to and when they are interested" (Kotler and Keller, 2009, p. 529).

However reference groups have a different influence on purchase decision according to the type of product. Indeed according to Bearden and Etzel, the public or private utilization and the fact that products are necessities or luxuries, the influence will be different. For example private necessities such as everyday products have a "weak reference group influence on brand selected" (1982, cited in Solomon et al, 2010, p. 393). Green products are not exception of the WOM promotion to target consumers and influence their attitudes for the purchases of the green products. In our study we wanted to test the hypothesis that the family and friends can influence consumers in their purchase decision of green products.

### **Satisfaction**

In a marketing view, satisfaction can be linked to brand loyalty which is "a pattern of repeat product purchases accompanied by an underlying positive attitude towards the brand" (Solomon et al., 2010, p 644).

Furthermore the satisfaction is also linked to the product quality. Indeed the best quality of a product is the more

satisfied the consumer is (Kotler and Keller, 2009, p. 169). Quality leads to performance and finally to customer satisfaction. Then customers satisfied are more willing to repeat purchases (Zeithaml et al, 1996, cited in Chang and Fong, 2010, p. 2837). According to a survey composed of around 200 respondents in Taiwan, green product quality was positively linked to customer satisfaction and green customer loyalty (Chang and Fong, 2010, p. 2841). Nowadays customers are looking for products with high quality and which advocate social and environmental values (Chang and Fong, 2010, p. 2841).

The satisfaction of products enhances repetition afterwards results in brand loyalty. The satisfaction of the consumers green products is paramount because it involves and shows the corporate responsibility of the companies. The society can reject a product due to the unsatisfactory activities of the company environmental friendless so the eco-friendly products as well as the company' marketing strategies should show the pro-environmental. Satisfaction plays important role in the attitude of the consumers towards eco-friendly products because the green marketing definition by some researchers revealed the satisfaction of consumers and society at large as vital, for instance, Welford (2000) (cited in Chen and Chai, 2010, P.29-30) defined green marketing as the management process responsible for identifying, anticipating and satisfying the requirements of customers and society in a profitable and sustainable way.

### Attitudes

In a psychological sense attitude is defined as a “tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly and Chaiken, 1993, p. 1).

In a consumer behavior approach, Solomon et al. (2010, p. 643) defined the attitude as “a lasting, general evaluation of people (including oneself) objects or issues.” The AMA defines it also as “a cognitive process involving positive or negative valences, feelings, or emotions” (marketngpower.com). The attitude is an important part in the study of consumer behavior. Indeed it represents one entire chapter in the Consumer Behaviour: A European perspective book (Solomon et al., 2010, p. 274-307). Many theories have been constructed on the attitudes. As the consumption of green product is a current and relevant subject, many studies have been done about the attitudes towards green products.

### ABC Model

ABC model of attitudes: the model stresses the interrelationships between knowing, feeling and doing. Highly experienced researchers have in agreement that an attitude has three components of affect, behavior and cognition. The effect category explains as the emotions and feelings of people towards an object, for instance, a product.

Behavior relates the actions and intentions of attitude towards an object or product which can be favorable or unfavorable and cognition can be explained as the beliefs a consumer has for the attitude object which be negative or positive (Solomon et al., 2010, p. 277). “The consumers attitudes affect their thoughts and feelings and thus influence behaviour such as purchasing behaviors” (cited, Picket-Baker and Ozaki, 2008, p.282, Ajzen, 2005, p.3). The past experience of the green products could result to positive or negative towards them which could influence the behavior of the consumer whether to purchase the eco-friendly products or not.

Picket-Baker and Ozaki (2008, p.289) examined in their research that environmentally conscious consumers were likely to pick or purchase brands they knew produced by companies whose goods and production method were more “environmentally friendly”. The experience and satisfaction of the green products have great impact on the feeling and action of the consumers' attitude. For instance LOHAS have more positive attitude towards eco-friendly products, have the belief that the products are healthy (Solomon et al 2009, 208). The explanation of the ABC model by some researchers are linked with our proposed model in which consumer attitude towards an object (eco-friendly products) precisely FMCG.

The experiential hierarchy of effects means that “consumers act on the basis of their emotional reactions. “Although the factors of beliefs and behavior are recognized as playing a part, a consumer's overall evaluation of an attitude object is considered by many to be the core of an attitude.” (Solomon et al., 2010, p. 279). So according to this perspective “attitudes can be strongly influenced by intangible product attributes such as package design, and by consumers' reactions to accompanying stimuli such advertising and even the brand name” (Solomon et al., 2010, p. 279).

### Purchase Behavior and Green consumer

#### Purchase Behavior

Purchase intention can be defined as “what consumers think they will buy”. Consumer intentions play an important role in marketing strategies (to implement four P strategies) because they permit companies to evaluate how many products could be produced according to the demand. To predict the purchase intention, companies can interview consumers about their past behaviors in order to forecast their future behaviors but the products that people bought in the past can be different of those they will buy. Thus another method is to ask consumers what they intend to do (Blackwell et al., 2006, p. 409-410, 742).

However, “measuring what people intend to do may sometimes be less predictive of their future behavior than measuring what they expect to do”. So companies can also



use behavioral expectations which represent “the likelihood of performing a behavior”; thus to forecast relevant purchase intentions a time indication can be included the more the time distance is the more purchase behavior can change. Indeed it is easiest for a consumer to predict his/her purchase intention of a product tomorrow or in one month than in five years because behaviors change with time (Blackwell et al., 2006, p. 414-415).

### **Green consumer**

The effective and efficient use of the natural resources and preservation of it has led to consumers' segments to form green consumerism (Solomon, 2010, p. 401). Vernekar and Wadhwa define the green consumer as a person “who adopts environmentally-friendly behaviors and/or who purchases green products over the standard alternatives” (2011, p. 65).

Consumer behavior trends toward eco-friendly attitudes have been increasing. According to a survey made by the Co-operative Bank in the UK, in 1999, 17% of respondents “felt guilty about unethical purchase” and in 2005 there were 44% (Grant, 2007, p. 35). Consumers who have positive attitude towards the environment are more willing to purchase green products (Balderjahn, 1988, p.53). As previously said, however it is also true that even if consumers are concerned about environmental issues; they will not necessarily purchase green products (Mc Eachern and Carrigan, 2010, cited in Solomon et al., 2010, p. 229) as the following studies show it.

### **Limitations**

Our secondary data come from different academic journals and books of consumer behavior as well as marketing management. We found many studies about attitudes towards eco-friendly products due the currency of this topic. However we met some difficulties to select the articles which were well related to our topic and it was also difficult to summarize our findings because there were some contradictions. Indeed as we previously said, people are sometimes willing to pay more for a green product but in another context it is not relevant and consumers do not want to make compromises concerning the product quality.

### **Model and Hypotheses**

Based on these previous theories and findings we have decided to take as inspiration the conceptual model of Wanninayake and Randiwela (2008), reused also in the articles of Purohit (2011, p. 94) but adapted to our research questions. Their conceptual model demonstrates that the four marketing-mix elements: price, product/ package, place and promotion lead to purchase decision (considering also consumer demographics), this model was also used by and Vernekar and Wadhwa (2011, p. 69) demonstrating that elements of Green marketing lead to purchase decision. The

study of Wanninayake and Randiwela is based on the consumer attractiveness toward the green products in the FMCG sector, in this paper we modified their model by including the 4P factors but also other factors such as word of mouth and satisfaction. Furthermore between the 4P and the WOM and satisfaction we include the concept attitude, demonstrating that positive attitudes lead to purchase intention of green products. Demographics factors will obviously take into account but they are not used as “real hypotheses” because first “demographics alone are not sufficient to define and identify the ethical consumer” (De Pelsmacker et al., 2005, p. 366) and the aim of our research is to understand which factors used by companies and if the influence circle of consumers generate attitudes towards green products and if these attitudes lead to purchase of green products. However in our data collection and analysis, demographic factors such as the gender, the level of income and the nationality will be considered in order to see if there are differences.

So the following hypotheses will be tested:

H1- A significant and positive relationship between 4P factors and attitudes towards green products:

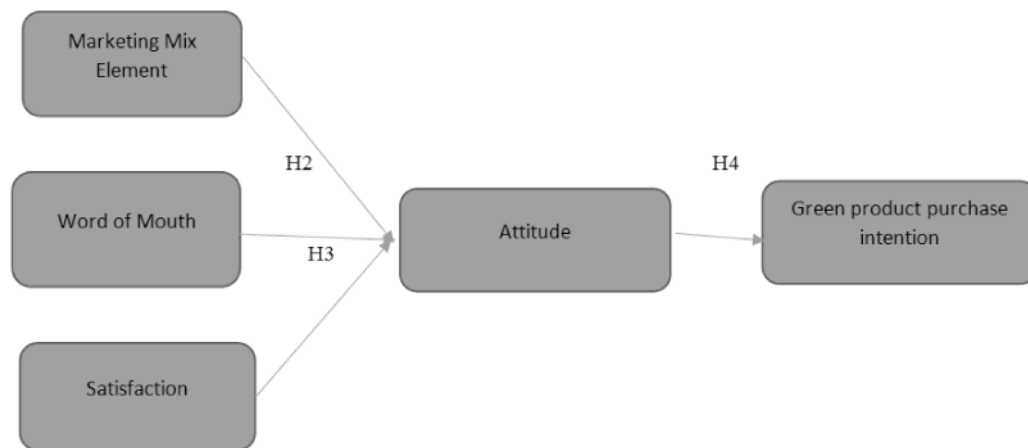
- H1a- A significant and positive relationship exists between Product and attitudes towards green products.
- H1b- A significant and positive relationship exists between Price and attitudes towards green products.
- H1c- A significant and positive relationship exists between Promotion and attitudes towards green products.
- H1d- A significant and positive relationship exists between Place and attitudes towards green products.

H2- A significant and positive relationship exists between Word of Mouth and attitudes towards green products.

H3- A significant and positive relationship exists between Satisfaction and attitudes towards green products.

H4- A significant and positive relationship exists between consumers' attitude towards green products and purchase of green products.

Consequently with the analysis of the previous studies, theories and our previous knowledge from green attitudes and purchase intention we decided to assume the following conceptual model:



## Methodology

### Philosophical assumptions

To get the idea behind its philosophical point of the research will be analyzed. The two of it will be explained and connected to the research. They are the Ontology and Epistemology.

### Epistemological consideration

The boundary of the research is done by researcher views or considers a valid and perceived knowledge (Bryman and Bell, 2011, p. 15). Position of the assumption of the knowledge and how could be acquired is taken into account. The researcher could obtain knowledge from the reading of books, articles and others to get deep and broad knowledge of the subject or topic of the research. The articles and book we will read will help in obtaining knowledge. Positivism and interpretivism are some philosophical ideas which get opened up. (Saunders et al., 2009, p. 112).

Interpretivism stands as opposite of the positivism and the researcher believes that the facts and data gathered and obtained are formulated to suit the research, for example, convenience sample will be used to gather the data due to the accessibility of the respondents and put it on the SPSS software for us to interpret it to suit the research. In the interpretivism, therefore, there has a relationship and dependent factors in which people (social actors) interact and interpret data are influenced by our actions and how people view the world are also influenced (Saunders et al., 2009, p.155-156).

The epistemology sense of the research will base on the positivism since some authors describe it as descriptive type of the philosophical position in research idea (Bryman, 2012, p.27). The purpose on the research will be on the generating of the hypothesis to confirm or reject factors on the attitude to the purchasing of the green products. Further

on the hypothesis on the four traditional marketing-mix elements on the influence of the consumer attitude on the eco-friendly products will be discussed on the view point of the respondents.

### Ontological Consideration

The researcher's view or opinion on the natural or nature of the social entities on the organization framework gets involved (Bryman & Bell, 2011, p.20). This will be linked to how we will analyze the views of the respondents on the purchases of the eco-friendly products and we will also review some articles and books of the factors companies use to influence consumers to make purchases of the eco-friendly products. There are two points in ontological consideration:

The objectivism explains the existence of the independence of the social actors and in the sense of free from control of the social factors in which the researcher has no control of the factors, this will reveal on the views of the respondents in which we will not have control over the opinions of the factors influence them to purchase eco-friendly products (Bell and Bell, 2011, p.15-16). However, the questionnaire is formulated by us but the answers will not be tempered. Constructivism can be explained that social entities are controlled, revised, reviewed and influenced by the social actors (Bryman & Bell, 2011, p.21-22). It defines also that "social phenomena and their meanings are continually being accomplished by social actors" (people) (Bryman, 2012, p. 33). Bryman (2012) explains that it assists the researchers to understand the natural and social world. This elucidates the interactions or activities of people towards either the destroying or preserving of environment. The research focuses on consumers' attitudes towards eco-friendly product and it will help the researchers to understand the consumers' purpose of patronizing such products.

Finally, we chose the objectivism because this is linked

to our factors, for example, satisfaction and word of mouth have relationship or not on the attitude of the consumers on eco-friendly products. This will be analyzed on the discussion section after the administration of the questionnaire. It will be derived from the responses of the respondents to determine if these factors exist independently or not on the purchasing behavior of the consumers towards eco-friendly products. We have two alternatives to choose either objectivism or constructivism for the thesis, however, we decided to opt for the objectivism for the purpose that data collected would not be interfered or tempered by the researchers or other external activities.

## Research Approach

### Deductive Approach

The above terms explained could lead the researcher to decide the approach to adopt for the research study. This leads to the approach of two methods which depend on the research, inductive and deductive (Saunders et al 2009, p.124). In the inductive approach the researcher follows the general theory of obtaining and analyzing data (Bryman and Bell, 2011, p.11) and build theories and the findings are emerged (Saunders et al 2009, p.126). In the deductive approach the researcher bases on what is already done and known in the research topic and the necessary theories applied to the topic in order to guide to formulate a hypothesis. This hypothesis is tested in order to be confirmed or rejected for the review (Bryman and Bell, 2011, p.11-12). Hypotheses will be derived from the research questions and model, theory of attitude which leads to the purchases of the eco-friendly products. The research questions and hypotheses will be formulated based on the factors which companies use to influence consumers to make purchases of eco-friendly products in the view of consumers. Some of the factors are the marketing mix, satisfaction and WOM which influence consumers' attitude finally leading to the behavior (action) if finally there are purchases of the products.

The deductive approach will be the research process of this thesis since there are much more data available for the research topic and for the two authors to test theories. Green marketing or eco-friendly products have researched by many renowned researchers due to the concern of the environmental degradation and deterioration. It is the global issue which has arisen our interest to study the purchasing behavior of consumers of eco-friendly products. Hypotheses will be tested according to consumers' point of view, how the factors used by the companies influence them to make purchases of green products. The factors will assist the authors to examine the attitude of the consumers (respondents) by using models or theories of attitude to support findings which will lead consumers' action

(purchases of the eco-friendly products).

### Quantitative Research

Quantitative research is “the collection of data that involves larger, more respondent's samples and numerical calculation of results” (Wiid and Diggines, 2009, p. 86). As looking deep to consumer behavior, a quantitative strategy is more suitable to include a large sample size, because it can be analyzed accurately through inferential statistics that will confirm the approval or disapproval of selected hypotheses and the result generated can be real and unbiased. Therefore, the research will go from more general to some specific reasoning and that developed a top down deductive approach (Bryman and Bell, 2011, p.11).

The research will derive some advantages by using the quantitative research design over the qualitative one. It has merits on the validity, reliability, replication and generalization which are valuable for the quality criteria of the thesis (Bryman, 2012, p.170-171 and Shiu et al.2009, p.173-174). Bryman and Shiu et al. (2012 and 2009) explained the qualitative method has some merits since it is very economical and less time consuming to obtain the data, originality of the data this shows the riches of the data without tempered by the researcher and accuracy of the consumer behavior.

### Research Design

There are five types of research designs which are experimental, cross-sectional, longitudinal, case study and comparative designs (Bryman, 2008, p. 35-58). A research design “is the framework for the generation of evidences that are suited both to a certain set of criteria and to the research question in which the investigator is interested” (Bryman and Bell 2007, p 39). In our study, we would like to extract a general view of consumers' attitudes towards green products, for example we are likely to interview people in the metros.

Consequently we have decided that the most relevant research design for our study was a cross-sectional one as we collect “data on more than one case (usually quite a lot more than one) and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables” (Bryman and Bell, 2011, p.53)

Indeed in our research study we will collect data on each of the four marketing-mix elements but also on WOM and satisfaction, in order to examine which ones affect attitudes and purchase intention of green products, and to what extent. Furthermore in a cross-sectional design, survey research is used and we will do a questionnaire to collect our data (Bryman and Bell, 2011, p.54). So six cases are considered and inside these cases several variables will be studied to accept or reject our hypotheses.

## Research Type

Our research design is the way how we collect, process and analyze data and we link to the research type. In this connection we will select a descriptive and explanatory research types. A descriptive research “uses a set of scientific methods and procedures to collect raw data and create data structure that describes the existing characteristics of a defined target population” (Shiu et al., 2009, p.62). With emphasis on descriptive type, in order to conduct primary data we will have questionnaires on the factors of marketing mix, experience, WOM and consumers' attitudes towards eco-friendly products which enhance their purchases (action). Models and hypothesis will be tested to link to the factors made mention for our analyses. Explanatory research, stresses on the research to explain the variables (factors) here which influence green attitudes and purchase or not of green products, in order to develop relationship between the variables and the problem (Saunders et al., 2010, P140). For instance, the marketing mix elements would be elucidated to link to attitudes and purchase behavior of eco-friendly products. The explanatory research explains and answers some questions on “why” and this has been included in the questions and been highlighted on the research study.

## Data Collection Method

### Sampling

#### *Choice of non-probability sample*

As we decided to follow a quantitative approach and consequently to elaborate a social survey, the sampling method used is a key point in the research process (Bryman & Bell, 2011, p. 175).

There exist two types of sampling methods: probability and non-probability samples. The first one is the most appropriate in quantitative research because respondents are selected randomly. Thus researchers have a heterogeneous sample more representative than a non-random sample; and the findings from the sample can be generalized to the population (Bryman & Bell, 2011, p. 185).

### Population

First step in sampling method is to select the sample in a group of units that is called population (Bryman & Bell, 2011, p 176). As all the people who live in metros cannot be interviewed, residents in the city of Delhi, NCR, Mumbai, culcutta, Hyderabad, banglore have been chosen as our population.

### Sample size and Composition of Sample

To reduce the sampling error, the largest the sample is the more the data can be generalized and representative of the

population (Bryman & Bell, 2011, p. 187). As a non-probability sample is used, the sample size is “a more or less subjective judgment made by the researcher” (Shiu et al., 2009, p. 462). For our study it will be relevant to be able to obtain a sample of around 200 respondents.

## Survey Method

### Self-completion Questionnaire

At the opposite of a structured interview, the self-completion questionnaire is “a questionnaire that the respondent answers without the aid of an interviewer” (Bryman and Bell, 2011, p.718). Thus the respondents cannot be influenced by the interviewer; their answers should be more objective.

### Questionnaire Design

A questionnaire is “a formalized framework consisting of a set of questions and scales designed to generate primary data” (Shiu et al., 2009, p. 329). As said previously a self-completion questionnaire seems to be the best approach for the quantitative method. There are twelve questions separated in six sections.

The first part is the introduction which includes the aim and the topic of the research survey. By following the diagram of the flowerpot approach, the questionnaire is going from general to specific data.

The second section “contains the broadest information requirements” (Shiu et al., 2009, p.337) and is focused on lifestyle measures by including two general questions about consumption of green products. Indeed the first question asks to the respondent his/her consumption of eco-friendly products in the last three months (we chose this period because it is not so far in the time). The second section uses a single item scale (using a Likert scale, from 1=the less purchased to 5= the most purchased) to determine which kind of eco-friendly products the respondent purchases and which of these products are the less and the most purchased. As said in the literature review products with high impact on the environment are the most eco-friendly products purchased, so we based our answers on the main products from the FMCG sector that consumers can find in a supermarket and which are eco-friendly: food (they are the most organic and green in supermarkets), health care/cosmetic products, cleaning products (which as conventional ones contain toxic components) and other household products such as bulbs. Most of these products were used in previous studies about eco-friendly products (Chitra, 2007 and Chatterjee, 2009).

### Types of Questions

As Ian Brace (Research Director at TNS UK) said “A poorly written questionnaire will not provide the data that are

required or, worse, will provide data that are incorrect” (Shiu et al., p. 2009, p. 327). For this reason we spent much time on the elaboration of the questionnaire and moreover concerning the design of questions. Indeed a clear and relevant questionnaire permits to obtain more relevant data.

All the questions used are closed; indeed closed questions are easily analyzable, comparable with other answers and permit to save time for the respondent and the interviewer (Bryman & Bell, 2011, p. 250). There are also disadvantages such as lack of spontaneity in the answers' choice; they can be irrelevant for some respondents who should not know how to classify in a forced-choice question etc. (Bryman and Bell, 2011, p. 252).

As said previously to measure attitudes Likert scales will be used because it is one of the best ways to measure that (Bryman and Bell, 2011, p. 253). Likert scales composed of “five scale point descriptors” are used, thus calculation of positive or negative attitudes could be measured by using “the summation of the scores associated with all statements” (Shiu et al., 2009, p. 422). Furthermore multiple-item scales are used to “collect data on several attributes” on green products (Shiu et al., 2009, p. 437) which are formative composite scales. Indeed “several individual scale items are used to measure different parts of the whole object” (Shiu et al., 2009, p. 438) e.g: price, quality, promotion of green products etc.

### Factor Analysis

After our data collection we included our findings in IBM SPSS Statistics. Our findings are composed of 175 valid responses.

Rating factors by respondents was really important for our study, for instance, we asked the respondents to rate perception of consumers' attitude towards eco-friendly products on the marketing-mix elements (4P) which could lead the consumers to make purchases of eco-friendly products. The analysis of our different factors will be made by using a multiple regression, which will permit us to evaluate and measure the impact of our different factors (independent variables) on the purchase intention of green products (dependent variable). This method will permit us to test our hypothesis. We would take into consideration, the product, pricing, advertising, place attributes, satisfaction and WOM where statements from our questionnaire will gathered to make more specific variables to evaluate each of our factors.

### Quality Criteria

Generalization and two other important quality criteria in quantitative method are the reliability and validity (Bryman & Bell, 2011, p. 158-160).

### Generalization

The representation of the data collection was emphasized since convenient sample is not appropriate for the generalization of the data (Shiu et al, 2009, p.692-693). We considered the residents of metro in our sample to get their views concerning their attitude towards purchases of eco-friendly products. The sample did not take all the population of the town and students. So totally generalization (Bryman, 2012, p.176) is hard to achieve in this thesis. We tried our best to structure the process of the sample to include workers, students and different ages in order to get a good sample representation.

### Reliability

According to Bryman and Bell (2011, p. 158) reliability is “the consistency of a measure of a concept”, it is linked to the stability of the data. In our data analysis we will do our best to calculate the reliability by using the statistical methods such as the Cronbach's alpha as we are using multiple item measures.

### Validity

Validity can be defined as the fact that “a measure of a concept really measures that concept” (Bryman & Bell, 2011, p. 159). As for the reliability we will assure us that our survey is valid by using different statistical measures.

### Data Analysis and Findings

In this part, our findings will be analyzed by using different measurements. Furthermore in this study we will assume a level of significance which can be equal to 0.05 or sometime 0.01 with a confidence interval of 95% or 99% (Shiu et al., 2009, p. 538).

### Demographic Findings

Our sample is composed of 174 respondents, we have more women than men but the difference is not high, 56.3% of women (98 respondents) and 43.7% of men. Two thirds of our sample is composed of people who are less than 34 years old, 20.7% are between 35 and 54 years old so we have a minority which is more than 55 years old.

As we predicted more than the half of respondents are students (56.9% i.e. 99 respondents), the second most important group is composed of employed people (38.5% i.e. 67 respondents) and we have a minority of unemployed and retired people (4.5%, only 8 respondents).

Most of our sample has an income (65.5%) indeed employed people obviously have an income but also students we found that 44.4% of students have an income, 65.9% of them declare that they have a low income and the rest a middle one so more than one third which is surprising because 65.9% of employed declare they have a middle income and there is not

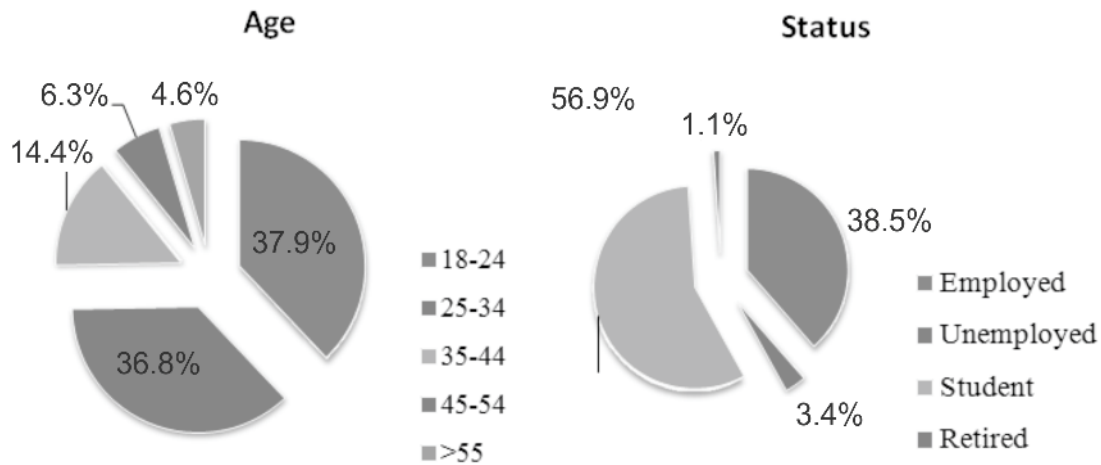
a huge difference between these two groups. So we can say that the level income question can be perceived differently according people. Finally 52.6% of our sample having an income has a middle one and 36% has a low income the rest

is composed of high income. We clearly have more students and employed than other people and also the high income is not representative to the true population.

**Table 1-** Composition of our sample by gender and by nationality

Gender:		Female	Male
	Valid Percent	56.3%	43.7%
	Frequency	98	76

**Figure 3 -** Composition of our sample by age and by status



**Quality Measurement**

The quality measures of the data would be emphasized in this part. Pearson coefficient (r) will also be presented to understand the correlation between the selected factors and the purchase intention of the eco-friendly products.

**Independent and ANOVA Test**

For the analysis of each of our factors (marketing-mix elements, WOM and satisfaction we used descriptive statistics but also correlation tables, independent and paired sample Test in order to prove if our comparisons were relevant or not. An independent t-test permits to compare two means with one grouping variable (for example gender) and a variable (for example satisfaction) and to demonstrate if there is a significant difference or not between these means (Shiu et al., 2009, p.541-542) i.e. are men and women have the same satisfaction concerning green products or is one of these two groups is more satisfied than the other? If the significance is above to (generally) 0.05 there is no difference, if it is inferior there is a difference. Furthermore

we also used ANOVA or analysis of variance which is a “statistical technique that determines whether two or more means are statistically different from each other (Shiu et al, 2009, p. 722) for example if there are differences according to the age of respondents, their status and their level of income (low, middle or high), indeed these variables are composed of more than two values so ANOVA was the best option to compare these variables (Shiu et al., 2009, p.722). As we wanted to show if there are differences in consumer behavior and intention between the genders, the age, the nationality or the income. As said previously we consider a level of significance below 0.05 (consequently with confidence interval of 95%, the confidence level permits to “include or measure the true population parameter value”, (Shiu et al., 2009, p. 725)). We will examine the means of variables according to demographics factors as well as the standard deviation.

During our analysis of data we decided to take the most relevant data i.e where we could find differences between our demographics factors to analyze them and data which

can be useful for our analysis. Our data are presented in term of means, let's remind that we used a 5 points Likert-scale from 1 “strongly disagree” to 5 “strongly agree” and where 3 is equal to “undecided”.

### Gender

We discovered that there is a significant difference between the women and men for the following points. Concerning the purchase frequency of green products, the women buy more eco-friendly food (4.33) and healthcare/cosmetics products (2.60) than the men (3.78 and 1.91) which results are not surprising because the women are more willing to do shopping for their house. The women (4.41) more agree with the fact that green products are good for the environment than men (4.12). Then they (3.56) are also more ready to pay an extra price for green products than men who are undecided (3.03). The women (3.65) also close to agree to recommend eco-friendly products to their family friends, more than men (3.24) it is also the case concerning the attention that they give to green advertising (women=3.51 and men=3.38). Finally the women (3.63) just like more green products than men (3.17). These results show us that women seem more concerned by green products than men however we did not find differences concerning “healthy” argument of green products or good quality so both women and men agree on these points, that can be surprising because women are sometimes more perceived as more healthy than men but in our study there was no so significant differences with these statements (p value or significance (sig.) just more above (0.05).

### Age

These data are significant at a level where  $p < 0.05$ . There are significance differences between the ages of our respondents. The main differences are between the consumers who are between 18 and 34 years old which is relevant because the majority of our sample is in this age group, only around one quarter of our sample is between 35 years old and more. As for previous demographic groups there is a significant difference concerning the fact that green products have reasonable prices (sig. = 0.002 so well below 0.05) and the willingness to pay an extra price. Indeed concerning the fact that green products have a reasonable price there are significant difference between the groups of people who is between 18 and 44 years old, the people who are 35-44 agree more (3.44) than those of 18-34 years old, and their answer is less deviated (0.961) but keep in mind that they are less numerous than the two first age groups.

Concerning the willingness to pay a premium price even if people >55 years do not represent a large percentage of our sample they (4.13) are more willing to pay an extra price than young people (18-34 years old, 3.18 for 18-24 and 3.20 for 25-34). Then the ANOVA table shows also differences

concerning the “attention to eco-friendly advertising”, people who are more than 55 years old (4.13) pay more attention than 18-34 (3.48 for 18-24 and for 25-34 years old: 3.20). We can notice that even there is not a big difference; young people pay more attention to green advertising than 25-34 indeed we can suppose that the young pay more attention to advertising i.e. on TV, on the Internet due to their large use of these media.

Moreover there is also a significant difference (sig.=0.003 so less than 0.05) concerning the fact that people know where the green products are in their supermarkets indeed the group composed of 45-54 years people (4.09) agree more than the young (18-24: 3.09) concerning this statement and there is also a difference between people who are between 35-44 (3.96) and the youngest group (18-24).

Finally concerning the purchase intention the difference between age groups is less significant than for “reasonable price” and “I know where green products”, but it is still significant (sig.= 0.046 so less than 0.05). People who are more than 55 years old (4.63) are clearly more willing to buy green products than those who are between 18 and 24 years (3.73 and sig.=0.013) and between 25 and 34 years old (3.83). There is also a significant difference between the 45-54 age-group (4.45 and the youngest group).

So people who are more than 34 years old tend to more agree to the fact that green products' prices are correct and they are even ready to pay more for this type of products. Furthermore people who are more than 44 years old will (definitively) purchase green products.

However, as we said previously, these results should be revised by the fact that people who are more than 34 years represent only one quarter of our sample. Furthermore that can also explain the standard deviation which is inferior compared to that of 18-34 years because the last group is more representative (74.7%) in our sample so the responses have more different (consequently, standard deviation often above to 1).

Indeed the 18-24 age group seems less ready to purchase green products than the other groups to their perception of the green products' price even if they pay attention to green advertising for example they seem more undecided concerning the place of these products in their supermarket.

### Status

There are no significance differences concerning the status, by making an ANOVA test we only found two significance differences concerning the “willingness to pay an extra price” (sig.=0.048) and the “previous satisfaction” (sig.=0.012) between groups. However by observing the multiple comparisons table we did not find significant

difference inside the status. The most close value to the level of significance if we accepted a 0.1 level significance (but it is not the case:  $p < 0.05$ ) should have been between the students and employed people concerning the willingness to pay an extra price.

### Findings

We discovered that there were significant differences between the gender, and the age. Indeed women tend to be more eco-friendly than the men and the other people. Significant differences were also obtained concerning the status and the level of income. We did not find also significant differences between level of income because among 44.4% of students who have an income, 65.9% of them declare a low income and among employed people, 65.7% have a middle income so the results are almost the same for status and level of income as our sample is composed of mainly students and employed and low and middle income.

For each of our relevant demographics factors we found mainly differences concerning the price of green products, the advertising the previous satisfaction and the purchase intention.

### Simple correlations and new variables

By the previous observations we made on demographics factors and as we wanted to link every marketing-mix elements thus the WOM and the satisfaction to attitudes and also to action that is to say purchase intention of green products:

We gathered some items corresponding to each of our factors to create new variables in order to test our hypotheses.

However before creating these variables we used a table of correlations to see if there were some relationships between our items. The Pearson's coefficient, indicates the measure of these relationships, in a rule of thumb there is a very strong relationship when the Pearson coefficient is between 0.8 and 1 (no relationship between 0.0 and 0.2, weak between 0.21 and 0.40 and moderate between 0.41 and 0.60) however this level of strength of correlation coefficient is not absolute (Shiu et al., 2009, p.555).

From the results of correlations table we deduced that the Product Quality is composed of four items from our perceptions measures: "Eco-friendly products are healthy", "Have a good quality/performance", "Have a better quality/performance than conventional ones" and finally "Have a good taste and/or smell". Indeed these four items are related together as you can see in Appendix 8 (Pearson Coefficient is comprised between 0.399 and 0.558, sig.= 0.000). Even if the two variables "believe in information on green packaging" and "I understand information on green

packaging" were positively correlated ( $r = 0.408$ ) the internal consistency (less than 0.600) was not enough reliable and so was not relevant to create a new variable. So to evaluate our hypotheses H1a we had to just take in account the product quality.

For the promotion (Advertising) we included two items "I pay attention to eco-friendly advertising" and "I believe in eco-friendly advertising", indeed there was a positive correlation between these two variables and also a correct reliability ( $r = 0.579$ ).

The Place is composed of three items "Eco-friendly products are accessible/available in my supermarket", "I know where the eco-friendly displays are located in my supermarket" and "I easily find eco-friendly products in a supermarket", these three items are also positively correlated ( $r$  superior to 0.511, and sig.= 0.000).

The WOM is composed of two items involved the receiver and the sender of the information: "I hear and I pay attention to my friends/family opinion concerning eco-friendly products" ( $r = 0.604$  and sig. is equal to 0.000 which indicates a positive relationship).

We also created two variables linked to attitudes the Espoused Attitude composed of four items: the two first used for the WOM and the two others used for the advertising variable because this variable evaluates if people pay attention to what surrounds them and the Value-Expressive Attitude composed of three items "Eco-friendly products give a good image of me", "I feel trendy when I purchase eco-friendly products" and "If I do not purchase, people could judge me", this variable can both evaluate value-expressive and ego-defensives functions of the functional theory of attitudes: the value-expressive one stating that what consumers' intentions say about them, ego-defensive what people do to protect them. Indeed these variables are also well correlated, the Pearson's coefficient is comprised between 0.328 and 0.561 (sig.= 0.000).

Furthermore we wanted also to include in our analysis the purchase frequency of eco-friendly FMCG products, which is composed of four items: the purchase frequency of "food", "health care/cosmetic products", "cleaning products" and "other household products".

Finally we did not create new variables to evaluate Price and Satisfaction as we did not find items which were enough correlated between them to be combined. For example we did not find any correlations between "willingness to pay and extra price" and green products have "a reasonable price". So to evaluate Price we just consider "willingness to pay an extra price" and for Satisfaction: "I was satisfied with most of EF products I bought".



**Table 2** – Pearson correlations of our new variables

		Pearson Correlation With Purchase Intention
Purchase Frequency of eco-friendly FMCG products	Correlation	<b>.553</b>
	Sig. (2-tailed)	.000
Product Quality	Correlation	.331
	Sig. (2-tailed)	.000
Price (“Willingness to pay an extra price”)	Correlation	<b>.509</b>
	Sig. (2-tailed)	.000
Place	Correlation	.263
	Sig. (2-tailed)	.000
Satisfaction (“I was satisfied with eco-friendly products I bought”)	Correlation	<b>.542</b>
	Sig. (2-tailed)	.000
Espoused Attitudes (WOM+ Advertising)	Correlation	<b>.588</b>
	Sig. (2-tailed)	.000
Value-Expressive Attitudes	Correlation	.278
	Sig. (2-tailed)	.000

### Multiple Regression

The aim of our research we were interested by the factors that can affect the purchase intention of green products, in order to understand which factors have an effect and which have the most important effect on purchase intention we used a multiple regression. This technique is very useful for managers because it permits to see which factors have an influence on a dependent variable (Shiu et al., 2009, p. 583). Multiple regression permits to give us how much of the variance in our dependent variable can be explained by our independent variables (Pallant, 2010 p.156).

Purchase intention was chosen as the dependent variable as our aim is to demonstrate how marketing-mix elements, WOM and finally satisfaction via attitudes lead to action i.e. consumers' intention of purchase eco-friendly products.

A rule of thumb to choose the number of independent variables is the following equation: Number of respondents  $> 50 + 8m$  (where  $m$  is the number of independent variables), in our study we have a sample of 174 respondents which can be considered as not so fair according to Comrey and Lee (1992, cited in Pallant, 2010, p.156), however as we selected seven independent variables our sample is sufficient ( $174 > 136$ ) because there are at least 15 participants per each variable and it is the case ( $15 \times 7 = 105 < 174$ ).

The correlation with each of the independent variables and the purchase intention was tested by making a Pearson Correlation, all of the independent variables which are: the Product Quality, the Price (“willingness to pay an extra price”), the Place, the Satisfaction (“I was satisfied with previous eco-friendly products I bought”), the Espoused Attitudes (including WOM and Advertising), the Value-

Expressive attitude and the Purchase frequency of eco-friendly FMCG products were significantly correlated with the purchase intention (sig.= 0.000).

We verified previously that our variables were not too correlated in order to avoid multicollinearity (which “results in difficulty in estimating separate or independent regression coefficients for the correlated variables” Shiu et al., 2009, p.590).

We observed that the variables with the highest Pearson coefficients ( $r$ ) are the Espoused Attitude (0.588), the Purchase frequency of eco-friendly FMCG products (0.553), the Satisfaction (0.542), the Price (0.509), then the Product Quality (0.331), the Value-Expressive attitude (0.278) and finally the Place (0.263). So we concluded that each of these variables on their own are correlated (even some are weakly correlated) to purchase intention of eco-friendly products.

All of our independent variables have been retained because the correlation between the purchase intentions (dependent variable) with each of our independent variables was not too high and convenient. Indeed a correlation superior to 0.700 will mean that there will be a bivariate correlation in our analysis (Pallant, 2010, p.158). Furthermore the Tolerance value and the VIF are, as they should be i.e. more than 0.100 for the Tolerance Value and well below than 10 for the VIF for each of our independent variables. The Normal P-Plot shows a regular enough straight and there is no large deviation so it corresponds to normality (Appendix 9). The R Square is equal to 0.568 which means that our model composed of seven variables explains 56.8% of the variance of the purchase intention of green product so it is an

acceptable result. However we are conscious that this value can be optimistic in the case of “small” sample compared to the estimation of the true population so it is possible to use

the adjusted R Square (here equal to 55%). The significance of this result was demonstrated by looking the ANOVA table, with a level of significance equal to 0.000

Multiple Regression – Correlations

Correlations									
		Purchase intention of EF products	Value-Expressive Attitude	Espoused Attitude	Place	Total product quality and taste	Purchase frequency of green fmcg products	Willingness to pay premium price 10%	I was satisfied with most of EF products bought
Pearson Correlation *	Purchase intention of EF products	1,000							
	Value-Expressive Attitude	,278	1,000						
	Espoused Attitude	,588	,440	1,000					
	Place	,263	,211	,273					
	Product Quality	,331	,121	,395	,079	1,000			
	Purchase Frequency of green fmcg	,553	,285	,448	,128	,173	1,000		
	Willingness to pay premium price 10%	,509	,285	,447	,146	,313	,353	1,000	
I was satisfied with most	,542	,181	,434	,233	,406	,280	,331	1,000	

\*For these values sig= 0.000

Multiple regression - Model summary and ANOVA

Model		
	Adjusted R	Std Error of the
1	,754 <b>,568</b>	,550,770

ANOVA						
		Sum of squares	f	Mean Square	F	Sig.
1	Regression	129,556	7	18,508	31,200	<b>,000</b>
	Residual	98,473		166,593		
	Total	228,029		173		

Dependent Variable : Purchase intention of EF products

So our model explains more than the half of the variance of the Purchase Intention (56.8%) and the Purchase Frequency of FMCG green products makes the largest unique contribution, then the Satisfaction and the Espoused Attitude and the Price. Consequently factors which explain the most the consumer's intention of purchase green products are the previous satisfaction; the fact people have

already purchased green products but especially the presence of advertising and the importance of WOM (Espoused attitude)

**RQ1:** Which factors in the marketing-mix influence consumers to purchase eco-friendly products? Do other factors such as word of mouth and satisfaction play a role? To what extent these factors influence consumers to

purchase green products?

We demonstrated the importance of satisfaction, advertising and WOM by the introduction of the espoused attitude variable which measures the believe and attention that people pay around them (as well opinion of friend as green claims) so we can conclude as factors controlled by companies as factor here the WOM (as well the receiver as the sender of information) controlled by consumers have importance in development of purchase intention of eco-friendly products. The most important factors among the marketing-mix elements are the price and promotion (even here it was reduced to advertising), and we saw that product and place have a low impact but it is a good reason for companies to fix that. Finally satisfaction and WOM were also the most important factors to explain the contribution to the variance of purchase intention.

**RQ2:** Do positive attitudes towards eco-friendly products lead to purchase intention?

The discussion answers also to this second research question, we discovered that positive attitudes towards green products can lead to purchase intention but it is not always true as we saw with the two marketing-mix elements product quality (even we only consider the product quality to define the product element) and the place. These results confirm also the previous researches made on this subject as we mentioned it in the literature review, the fact that people are concerned about the environment does not lead necessarily to action.

### Conclusion

Satisfaction showed a great influence among all of the factors that indicated that marketing managers should concern with the superior value of the eco-friendly products. Consumers have strong emphasis on the end-value of the products in order to repeat purchases. Satisfaction has impact on the attitude and purchase decision. The results of the satisfaction of the consumers would lead to increase in sales, market shares and brand loyalty. Many scholar agreed consumers are concerned on the satisfaction of the products and activities of the companies not harm to the environment (Leonidos et al. 2010, p. 1337)

The product attributes in general have little influence on the attitudes and purchase intention of green products, which is surprising, but that could be due to the fact that some of the consumers buy eco-friendly products for the purpose of preserving the earth such as unselfish reasons (Solomon et al., 2010, p. 208). However, the product quality should not be overlooked since consumers relate price with quality (Kotler and Keller, 2009, p. 421) when making purchasing decision, and consumers research not only green products claiming environmental values but also products with high quality (Chang and Fong, 2010, p. 2841), because

consumers are not ready to make a compromise on quality just for the benefits green attributes and for the moment green products seem still have less quality than conventional ones as our findings and previous researches demonstrated it.

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