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MARKET SEGMENTATION FOR
PRO-ENVIRONMENTAL
COSMETIC PRODUCTS

Finnish Cosmetic Markets

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TIIVISTELMÄ

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Vihreä kehitys ei ole koskaan ollut vahvempi eri teollisuuden. Useat tutkimukset vihreällä markkinointi leviää maissa yritykset, tieteenalojen ja indus-yrittää, ovat nyt vahvistaneet, että vihreä markkinointi ei ole enää villitys. Sellaisia aiheita kuten kuluttajien käyttäytymiseen, tarvitaan tyytyväisyys, tuotekehitys, kierrätys, vihreä pakkaus, logistiikka ja edistäminen, on keskusteltu laajasti kirjallisuutta. Markkinasegmentoinnin tarpeen tunnistaminen Suomessa vihreille kosmetiikka-tuotteille tulee tässä opinnäytetyössä esille.

Tämän tutkimuksen tarkoitus on tunnistaa markkinasegmenttejä vihreille kosmeettisille tuotteille Suomessa, kun otetaan huomioon kolme muuttujaa, jotka ovat ostamis-aiheet, asenne, ja globaaliuoli ympäristöstä. Näiden tavoitteiden saavuttamiseksi on tässä opinnäytetyössä käytetty hyväksi kvantitatiivista tutkimusta sekä kirjallisuus-arvostelua. Kun kirjallisuus näihin liittyvistä aiheista on käyty läpi, muodostetaan kysely joka on suoritettu Suomessa, Vaasassa, kolmessa eri kosmetiikkaa myyvässä vähittäismyyntikaupassa, lopputuloksena 172 kyselyyn saatua vastausta.

Tilastollisen analysoinnin jälkeen, data viittaa kuluttajien jakaantuvan kolmeen erilliseen ryhmään, nimellisesti "puolueettomiin", "viher-aktiiveihin", ja "viherpassiivisiin". Kuten nimistä käy ilmi, kaikista potentiaalisin segmentti vihreille tuotteille näyttää olevan viher-aktiivit. Tutkimus selvittää myös, että väestöryhmän luonteenpiirteiden ja vihreän ostokäyttäytymisen välinen korrelaatio joka segmentissä Vaasassa näyttää olevan negatiivinen.

Lopuksi voidaan todeta, että tässä tutkimuksessa tehdyt kontribuutiot ovat esitetty yhdessä ehdotusten kanssa vihreän markkinoinnin toteuttajille ja suuntaa annettu tuleville tutkimuksille. Mahdollisia tutkimukseen liittyviä rajoituksia, sen luotettavuutta sekä validiteettia käsitellään opinnäytetyön lopussa.

ABSTRACT

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The green trend has never been stronger in various industry. Several studies on green marketing spreading among countries, companies, disciplines, and industries, have now confirmed that green marketing is no longer a fad. Such topics as consumer behavior, need satisfaction, product development, recycling, green packaging, logistics and promotion, have been discussed extensively in the body of literature. Recognizing the need for market segmentation in Finland for green cosmetic products, the thesis project comes into exist.

The purpose of this study is to identify market segments for green cosmetic products in Finland. The market will be segmented on the basis of three variables: buying intention, attitude, and global environmental concern. In order to achieve the objectives, the thesis utilizes two tools that are a literature review and a quantitative research. After literature of related topics was covered, a survey was designed and conducted at three different cosmetic retail stores in the city of Vaasa, Finland, resulting in 172 valid survey responses.

After being statistically analyzed, the data set suggests that the consumers in Vaasa can be divided into three distinct segments, namely "the Indifferent", "the Active Green" and "the Inactive Green". As indicated by the names, the most potential segment for green cosmetic products appears to be the Active Green. The research also reveals that the correlation between the demographic characteristics and green buying behavior of each segment in Vaasa appears to be negative.

In conclusion, the contributions that have been made in this research are presented, along with suggestions for green marketing practitioners and directions for future researches. Limitations as well as the reliability and the validity of the research were examined at the end of the thesis.

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I. INTRODUCTION

A variety of green products are now offered to consumers, ranging from laundry detergents and household cleaning products to cosmetics and toiletries, and from energy saving appliances to compostable nappies (in the USA). Relevant academic studies include: Prothero and McDonagh (1992), (examining green cosmetics and toiletries); Mazis et al. (1973) and Henion (1972), (laundry detergents), Kassarian (1971), (unleaded petrol), and Schwepker and Cornwell (1991), (products in recycled packaging). All of these prove the limitless waves of green products tapping consumer markets around the world. Following the green trend that does not seem to be fading out in the near future, the present study focuses on exploring the potential of green consumption in the cosmetics industry in the market of Finland.

The first chapter of the thesis, playing as a guide for the study, will walk the readers through four sections, namely background of the study, research problem and research objectives, methodology, and, finally, structure of the thesis. In particular, this chapter presents how the field of consumer behavior and green marketing have been treated in the literature and how they are reflected on each other, what the problem to be addressed is and what objectives to be achieved are, and what tools will be used in order to reach the objectives.

1.1 Background of the study

A vast body of multi-authored, multi-country and inter-disciplinary research related to green marketing is available, spreading from country to country, industry to industry, analyzing cases of several companies of all sizes and their products. It is now accepted that the concern for the environment is more than just a passing fad (Peattie, 1992). Green marketing has generally been discussed in terms of the basic assumptions of the marketing concept from the 'sustainability' perspectives, followed then by suggested green marketing strategies (Langerak et al. 1998; Ottman 1998; Peattie 1992; Polonsky 1994; van Dam & Apeldoorn 1996). According to Sapna A. Narula and Anupriya Desore (2016), studies following the trend are covering topics about consumer behavior, need satisfaction, product de-

velopment, recycling, green packaging (Lewis 2005; Zhang and Zhao 2012; Lai et al. 2013), logistics and promotion (Laroche et al. 2001; Boztepe 2012) to remanufactured products (Davis 1991; Kangis 1992; Fuller 1999; Menon and Menon 1997; Ottman 1998; Peattie and Crane 2005; Grant 2008).

The body of knowledge on green marketing has mainly focused on four issues. These issues are: first, the relevance of green marketing; second, impact of green marketing on the competitiveness and performance of firms; third, attributes considered important by consumers while buying green products; and fourth, improving effectiveness of green marketing (Lalit M. Johri & Kanokthip Sahasakmontri 1998).

Apart from green marketing, green purchasing behavior is also under the spotlight in the literature of global marketing (Balderjahn, 1988; Bohlen et al., 1993; Synodinos, 1990). Pressure group activity has led to boycotts of products both for environmental and social reasons (Smith, 1990) where the green movement is also important. Environmental groups have increased in size and power globally, both in the developed and the developing nations (Prothero et al., 1994). They have also become better organized via increased co-operation across groups with diverse environmental interests (Dunlap, 1991; McGrew, 1993; Prothero et al., 1994). In future years a "new era" of environmentalism can be expected as a result of four societal changes (McGrew, 1993), namely that of increased public concern for the environment, which leads to green and a diffusion of green values, which in turn leads to increased state environmental regulations.

To my best knowledge, specific studies on green purchasing behavior for eco-friendly products are almost non-existent for the cosmetic industry of Finland. There are some theses done at the level of university of applied sciences, and some other projects carried out by students on the university level. In addition, the notion of eco-friendly products is not any more new, but when put in the cosmetics context, it remains lightly touched. For these reasons, I would like to dedicate efforts into researching the cosmetic industry from a green perspective.

1.2 Research Problem and Research Objectives

A growing number of pro-environmental products have been mounting up in the domestic markets of many countries as well as in the international playground, whether it is food and drink, transport, energy, the pharmaceutical, or the cosmetics industry. The number of green products offered by companies has increased by approximately 2,000 per cent in the five years to 1990, to constitute 9.2 per cent of all the new product introductions in the UK in the first half of 1990 (Salzman, 1991). The demands for this product type are not only strong in the first world but also increasing in the developing countries. Profiling consumers in the target market is always a fundamental preparation before setting one's foot into the market.

With the focus on the cosmetic industry, this thesis aims at identifying market segments for pro-environmental cosmetic products in Finland on the basis of consciousness, intentional and attitudinal variables. There are many green cosmetic companies performing well in sales around the world, but that have yet to find their ways to the market of Finland. Therefore, marketing practitioners and academics in the field of green marketing, as well as policy makers shall benefit from the results of this study in their decision-making.

The objectives of the research are (1) to examine purchasing intention that Finnish consumers show when shopping for cosmetic products, (2) to investigate their environmental consciousness and finally their (3) attitude towards pro-environmental products.

In order to fulfill the objectives and solve the research problem, primary and secondary research is adopted. The secondary research makes use of previously developed theories of green purchasing behavior of consumers. The primary research comprises collecting data through a survey on two sample groups, consumers living in Vaasa, Finland.

1.3 Methodology

The backbone of every research project is the collection of data which the researcher has identified as worthy of analysis. In the pursuit of the research objec-

tives, two fundamental research tools will be utilized: primary data and secondary data. Primary data is original data, generated for the specific purposes of a research project, such as transcripts from interviews, questionnaires from a survey, etc. (Bryman and Bell, 2007). Not all data is gathered for the specific purpose of the research project under consideration. Secondary data is the type of data that is available in public for a researcher to collect and analyze. This naturally occurring data may take the form of public reports, newspapers, magazines, websites, books or articles (Blaxter et al. 2001). In this thesis, quantitative research will be adopted as the primary data source, and books, journal articles and official websites of relating organizations as the secondary data source.

Literature on cosmetic industry and green consumer behavior is reviewed in the following in chapters 2 and 3. Due to availability and convenience, secondary data is gathered from such accessible sources as books, journal articles, and official websites of relating organizations. For primary data, a questionnaire is tailored to fit the aims of the research and distributed to customers of three different cosmetics stores located in the city center of Vaasa, Finland. The stores are The Body Shop, Sokos Emotion, and Life Hoivioikeudenpuistikko. The questionnaire building, sampling method, research findings and discussions are explained later in chapter IV.

1.4 Structure of the thesis

The thesis consists of five chapters, namely Introduction, Cosmetic Industry, Green Consumer Behavior, Methodology, and Conclusions.

The first chapter, *Introduction*, presents the background of the study, the statement of the research problem and research objectives, methods of research as well as structure of the thesis. Earlier literature is reviewed and selectively argued to support the study, and presented in the second and the third chapters. The second chapter, *Cosmetic Industry*, introduces definitions of cosmetic products, provides a brief overview of the industry in and out of Finland, looks into the problems posed by the industry and solutions that the industry has come up with to create a safety standard for both the environment and the society in cosmetics production and consumption. Literature on some aspects of green consumer behavior that

help to develop the study is introduced in the third chapter. In the following chapter *Methodology*, the tools with which the research is conducted are revealed, followed by the results of the survey and discussions on the findings. Finally, the fifth chapter discuss the suggestions for green cosmetics marketers, limitations of the study, directions for future research as well as the reliability and the validity of the study, and the summary of the thesis.

1. COSMETIC INDUSTRY

The sentiment of beauty has never been forgotten by human being, whether it is something intangible like music, poetry, or tangible like nature, architectural constructions, pieces of sculpture that have been through meticulous hands of the creator, or something as simple as human body. Throughout the history of mankind, people, mostly women, have been holding a handful of beauty secrets that help enhance their appearance, using local knowledge of the scents and healing properties of plants, flowers, and herbs. In the past, the purposes could be merely for religious rituals and cultural beliefs, to dispel bad spirits and to attract a romantic partner, but later on, beauty products became also about getting a good job, showing respect in relationships and gaining self-confidence in daily life. The floral based products that were used to polish one's look, with the assistance of modern biochemical and other fields of technology, are now commonly perceived as cosmetics products. Regardless of culture and race, with globalization as the catalyst, demand for cosmetics products is undeniably remarkable around the world.

Before any attempt to segment a part of a national market, it is important to have a broad view of the whole industry in and out of the target market. This chapter starts with the definition of cosmetic products and their functions. A picture of the industry in the worldwide scale and in the Finnish national scale is projected, followed by the impacts of cosmetic industry on the environment and human society. Lastly, the chapter explores how the green wheel has been turned in the cosmetic industry and how far the movement has reached.

2.1 Definition of Cosmetic Products

Having been around for thousands of years, cosmetics and the use of cosmetics can be traced back to when people painted their body for religious ceremonies, war, and mating rituals (Sameer et al. 2006). The word 'cosmetic' itself was derived from Greek word "Kosmeticos" which means adorn and preparation. Strictly speaking, whatever is used to beautify, to make something or someone superficially look more attractive or impressive, can be considered as cosmetics. There are a few sources of literature which propose definitions of cosmetics that convey the

same idea by different words. As Saraf Swarnlata and Saraf Shailendra (2008) illustrate in their book "Cosmetics: A Practical Manual", cosmetics are substances meant for applying on external parts of the body in order to color, cover, soften, cleanse, nourish, wave, set, mollify, preserve, remove and protect, for the purpose of beautifying, promoting attractiveness or altering the appearance. Another researcher defines cosmetics in a more passive perspective by using transitive verbs indicating the action of users; that is, cosmetics are items that can be rubbed, poured, sprinkled or sprayed on, introduced into skin, face, hair, nails, and even elsewhere so that the appeal is enhanced. Acknowledging that the former provided by Saraf and Saraf (2008) fully clarifies functions and purposes of cosmetics products, as well as the variety of existing beauty products in markets, the current study adopts the definition and develops arguments based on it. A study would fall critically short of validity if it fails to allocate the cornerstone of the research problem, which in this case is to understand the market and the variety of products that are available in the market.

According to the definition, cosmetics are, therefore, not just coloring products like mascara, lipsticks and foundations, but also basic cleansing products that are required for daily use, such as shampoos, soaps, toothpaste, shower gel, deodorants, shaving creams and moisturizers. The list goes on with products for other special purposes, for instance anti-acne creams, anti-inflammatory lotions, anti-lice shampoos and healing creams. Even though the latter products are likely to be considered more as pharmaceutical products, it is sensible to conclude that cosmetic products do not serve just the vanity needs of consumers but also the basic needs of hygiene and cleanliness.

As far as the classification of cosmetic products is concerned, there are three ways to group them under different headings, namely region (where on the body they are applied to), function, and composition (Saraf & Saraf 2008, 2) as tabulated in Table 1.

Since the cosmetic industry is immensely fragmented, the enormous diversity of cosmetics products can easily cause diffusion in the current research, unless a smaller group of products is singled out, focused on, and closely investigated.

When it comes to empirical research, with respects to the respondents' convenience in answering the questionnaire, extensiveness of the product range can be confusing and time-wasting for the respondents if the focus group of products is not explicitly described. Moreover, the group of products picked should serve the largest audience possible, thus, must be the best-selling group of products. Hence, the current study will choose to work on skin care products and make-up products, whose global market shares together exceeded 50% in 2014 (Figure 1).

Region (Parts of body)	Function	Composition
Skin: Powder, Lipsticks, Rouges, Cream, Lotion and Solutions, etc.	Emollient preparation: cold cream, vanishing cream, foundation cream, lotion and solution, etc.	Powder, Lotion, Emulsion, Solution, Suspension, Cream, Paste, Gel, Aerosol, Stick, Pencil.
Hair: Shampoo, Conditioner, Cream, Bleach, Coloring preparations, etc.	Cleansing preparation: Cream, shampoo, rinses	
Nail: Nail lacquer, Lacquer remover, etc.	Decorative preparation: lipstick, rouge, eyeliner, lacquer, dressing preparation	
Teeth: Powder, Paste, Gel and Dentifrices etc.	Deodorant/Antiperspirant: spray, stick, mouth rinses	
Eye Eyeliner, Mascara, Eye: shadow and Eye-brow pencils, etc.	Protective preparations: cream, powder	
	Preparation for enjoyment: salt, powder, oil, milk	

Table2 - Classifications of cosmetics in three approaches

2.2 Cosmetic Industry around the world

In this section, the size and sales of cosmetic industry in the world and in some countries are examined, along with percentage indicating market shares of differ-

ent groups of product. Besides, the most prominent international cosmetic companies that are holding major market shares are listed. Next, the diversity of product types and the expansion of target markets in terms of gender and age range are described. Finally, brief information about the green trend in the cosmetic market is also mentioned.

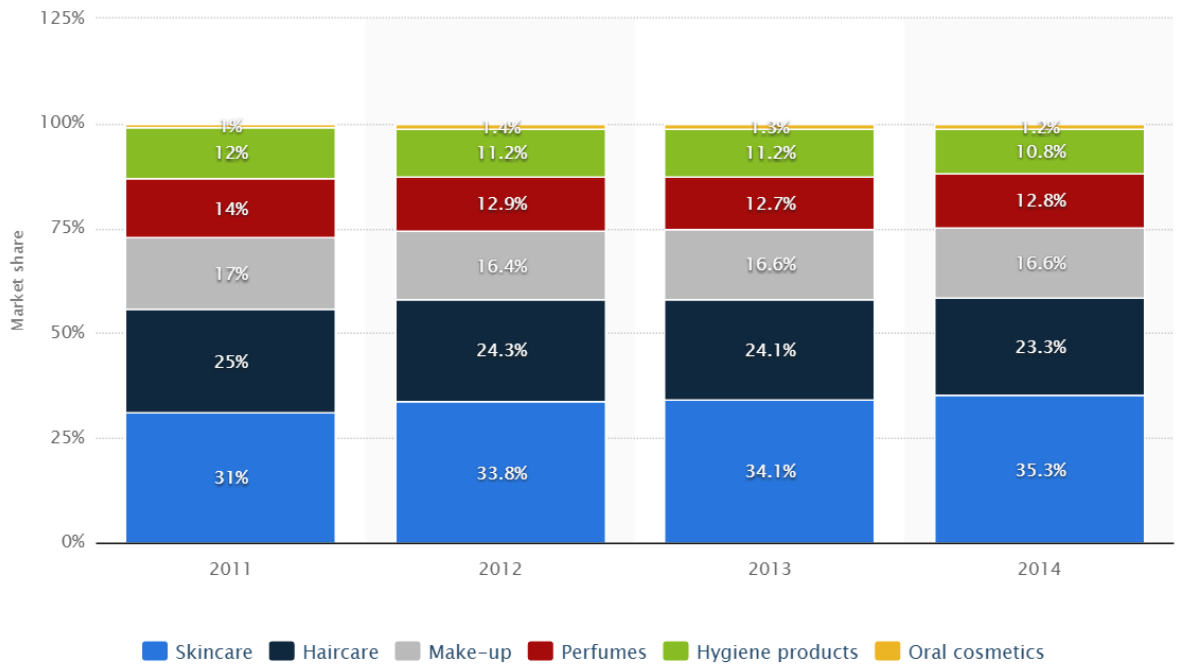


Figure 1 Market shares of different product groups in global cosmetic industry 2011 - 2014 (The Statistics Portal 2016)

Beauty industry plays an important role in the global economy, growing from a \$25 billion global industry in 1982 to a \$330 billion industry by 2008 (Geoffrey 2010). Today consumers around the world spend \$330 billion a year on fragrances, cosmetics, and toiletries. Within the European cosmetics market, Germany had the greatest volume in 2014, with the value of approximately €13 billion, followed by France and the United Kingdom at €10.6 billion and €10.4 billion respectively (The Statistics Portal 2015). In China, the total sales volume for cosmetic products had reached about 163 billion yuan in 2013 (The Statistics Portal 2014). Finland yielded €0.89 billion in 2014 for cosmetic products. Since the beginning of the twentieth century, the cosmetics competition around the world has been controlled by a handful of multi-national corporations. Leading companies in the

global cosmetics market are, to name a few, L'Oréal, Unilever, P&G, Colgate-Palmolive, and Estée Lauder (Beauty Packaging, 2015). The global cosmetic companies must compete for shelf space in retail stores, not only with rival companies offering well-known and trusted brands but also less expensive copycat brands providing similar unbranded products. In terms of market share among the product groups, the cosmetic industry is broken down into six main categories; skincare was the largest one out of them all, accounting for 35,3 percent of the global market in 2014 (Figure 1).

Cosmetics is a highly fragmented industry, including several types of products for different parts of the body, types of skin, purposes, consumer gender and age. As mentioned in the previous section, cosmetics are classified by their target part of human body, thus, different product lines are developed for body skin, facial skin, hair care, nail care, and so on. As for function, there are products for the purpose of makeup, also called color cosmetics, moisturizing, sanitary, and other specific purposes. Talking about facial skin, the industry has also been introducing plenty of products satisfying different types of skin, i.e. normal, dry, oily, combination, sensitive skin, and so on. The variety does not stop there, but evolves through time with different genders, groups of age, ethnic groups, cultures, and so on. Consumers beauty rituals and product priorities are shaped by ethnic and cultural diversity. The right cosmetic products for specific target users that are women, men, kids, or the elderly have been available for a while on the market shelves all over the world.

For a long time, it was true that adult female audience remained the sole target market. Since the 1990s, the industry embarked upon exploring ways to sell cosmetics to male consumers. By the next century, US sales of cosmetic products for men were estimated at \$4 billion, when men's skin care alone represented \$500 million (Thompson 2005). Asian markets, in comparison with Western countries, were generating more sales in terms of cosmetic products for men. Particularly, the Japanese and the South Korean markets have witnessed a considerable group of male consumers spending money on cosmetic products in order to appear delicate and pretty (Guy Montague-Jones 2007). According to Euromonitor, South

Korean male consumers stand at the world's top per-capita for skincare products, four times larger than of runner-up Denmark (CNN Money 2015). In the meantime, men consumers in India are showing a noticeable demand for creams and fragrances. Due to their tradition, most of Indian men, no exception for the poorest persons, use those products on a regular basis. There have been some marketers who made attempts to eliminate the differences between genders in perfume category by introducing unisex product lines, i.e. Calvin Klein in 1994 (Geoffrey 2010, 335). However, Calvin Klein's success could not trigger a trend, even though other major players attempted to introduce androgynous products.

Younger female consumers have gained more and more attention from marketers. An increasing number of cosmetic companies are competing for consumption from teenage girls. To captivate this segment, companies have been developing their so-called light-based products for younger consumers, who are undergoing delicate adolescent age. For example, a female teenage consumer culture had already developed in the United States during the interwar period. It was anticipated to make up one-fifth of total American beauty market by year 2000 (Geoffrey 2010, 335).

Now that the markets for younger female consumers have been spotted, consumers in their later years of life are also in the target. Life expectancy is rising globally, as a result, an increase in snowy-haired population is becoming more and more expectable. Since mature people are still engaged in keeping up their appearance, they are likely to spend more money and time on cosmetics products, such as hair dye products, volumizing hair mousse, anti-wrinkle and anti-aging creams, etc. (Drug and Cosmetic Industry, 1998)

Growing environmental awareness has caused a shift in consumers behavior, desire and attitudes toward natural cosmetic products in most countries in the world. Despite the crippling global economic recession, the green trend in cosmetic industry has gained momentum over the past years. The Organic Market Report 2016 released on February 23 showed that the organic market was continuing to grow steadily at the rate 5% since 2015, which marked the third consecutive year of growth for the UK organic sector (GCI Magazine 2016). The leading distribu-

tion channels for organic beauty products are beauty specialist salons and department stores. In ASEAN (The Association of Southeast Asian Nations) markets, beauty salons' sales are expected to account for 23% of the total revenue by 2020, while sales of organic beauty product of department stores account for 18,7% by the close of the period (GCI Magazine 2015).

2.3 Cosmetic Industry in Finland

After getting to know the industry from a global view, the thesis seeks to understand what the cosmetic market looks like in Finland. This section will firstly give an outline of the recent condition of the Finnish cosmetic market, secondly suggest the direction toward which the market is drifting, thirdly take a glimpse of the market leader, and fourthly describe the background of the most remarkable domestic-born cosmetic companies in Finland. Lastly, some helpful findings of a previous research on cosmetic consumers in Finland will finish the section.

The lingering economic recession restrained color cosmetics sales in Finland in 2015. Consumption of premium and luxury brands decelerated while mass brands witnessed a rise in sales; mass brand sales grew by 1%, premium brand sales fell by 2%. Overall sales of color cosmetics stagnated in Finland. The upturn in sales of mass brands could be explained by some intensive campaigning by manufacturers in 2015, with typical mass launches including products that imitated premium product and their deluxe packaging and ingredients. Examples are packaging with golden boxes, formulas including exclusive oils adding value to color cosmetics and multi-purpose featured products (Euromonitor 2016).

Multi-functional properties are expected to be a key trend in color cosmetics over the near future period. For example, sun blocking properties will be included in color cosmetics such as facial make-up or lip products. Furthermore, such skin care functions as moisturizing and anti-ageing properties in facial make-up products are projected to continue to be introduced and will successfully catch consumer attention, thus allowing consumers to gain maximum advantage from their color cosmetics purchases (Euromonitor 2016).

The market leader in Finland in 2015 was L'Oréal Finland Ltd, recording a value share of 30%. The company took actions to heavily invest in new product development and advertise as well as ensure its products excellent distribution. In addition, with its diversified portfolio, the company is present in all different price ranges, at the same time the company premium color cosmetics brands Lancôme and Helena Rubinstein. In Finland, the largest domestic-born companies holding top positions in the cosmetic market are Berner Ltd and Lumene Ltd (Euromonitor 2016).

Berner Ltd. is a Finnish family-owned company established in 1883, operating in Finland, Sweden and the Baltic countries. Berner Ltd. mainly develops and manufactures many hygiene and skin care products, and imports well-known international brands. The company started the production of XZ brand products in the 1950s with a successful oil care product, using local raw materials and packaging in order to keep transport distance as short as possible. By locating product development unit in Helsinki's Herttoniemi district, and new production facilities in Heinävesi in 2014, Berner Ltd. has contributed to job provision and expertise in Finland (Berner Oy, 2016).

Lumene Ltd. saw the Arctic light of day in 1970, and became the market leading skincare and cosmetic brand in Finland after only three years. The brand is nowadays present internationally, especially in Sweden, Russia and the US. The brand image is built upon the ground of natural wild ingredients combined with high bioactive technologies in the laboratory. The company recently launched a new color cosmetic brand - Natural Code - following the latest trends in color cosmetics, with the added benefit of natural ingredients and inspiration from the wild, focusing on its Scandinavian roots (Lumene Oy, 2016).

Among the cosmetic giants operating in Finland, Bodim Port Ltd. is also a noteworthy player. The company was founded in 1987, importing and distributing The Body Shop brand into Finland. There are 31 The Body Shop stores in Finland, from which direct importer Bodim Port Oy owns 25 shops. The remaining six stores are sub-franchise shops, which are each operated by an independent retailer entrepreneurs. The company's headquarters and warehouse are located in Hert-

toniemi, Helsinki. Bodim Port Oy has also importing rights out of Finland, for example in Estonia, Lithuania and Latvia. Finnish importer Bodim Port Oy's turnover in 2015 was EUR 10 million (Bodim Port Oy, 2016).

As mentioned in the first chapter, to the author's best knowledge, there is a very small number of research in English language on the cosmetic market in Finland. There might be a greater availability of them in Finnish language, which is unfortunately out of my comprehensive ability. Therefore, the existent data will be exploited in order to magnify the typical characteristics of Finnish consumers in terms of cosmetics.

A discussion paper by Leminen (1994) published under the University of Vaasa with the title "The meanings of cosmetics" suggested some findings based on 16 in-depth interviews that were conducted on students. The paper proposed that Finnish students as consumers (1) seek to enhance their self-esteem, (2) believe that they can concentrate on more important things in life because they know that the exterior is taken care of, and (3) consider using cosmetics as a way of improving the quality of life.

2.4 Impacts on the environment and society

Strictly saying, there is no such human activities that ever happened in the world cause zero harm or make zero changes on the environment, even an action as simple as breathing. As the matter of fact, nature has its own system of balancing out the impacts induced by creatures living in it, as long as the impacts do not exceed the containable limit. Like other industries, the cosmetic industry is crossing too far from the tolerable bound that the environment can afford. The acts of manufacturing, selling and consuming cosmetic products are inevitably in the spotlight of criticism due to their huge footprints left on the nature around the world. This section seeks to scrutinize the damages that not only the environment but also human society are suffering from the cosmetic industry.

The cosmetic industry is often objected by the media and NGOs for the use of animal-testing methods. Historically, most cosmetic companies have been testing

both ingredients and finished products on animals, usually rabbits and mice, to analyze levels of safety on humans. After many years of struggling that non-profit organizations spent to fight against the practice of testing on animals, there are signs of phasing out in the industry, especially in the developed countries. However, it is likely to take many more years before a global ban is introduced and enforced (Sahota Amarjit 2013, 3-4).

Beside the issue of animal-testing in laboratories, the industry is indirectly destroying biodiversity by its supplies sourcing activities. As one of the largest user of palm oil, a type of vegetable oil that is predominantly grown in Indonesia and Malaysia, the cosmetic industry is believed to be responsible for the disappearance of orangutans in those countries. Indeed, unethical sourcing of palm oil has led to the destruction of tropical rainforests, threatening the habitat of endangered orangutans, exclusively Asian species of extant great apes (Sahota Amarjit 2013, 4).

A number of studies have reported on the adverse effects of cosmetic ingredients on the environment. A research by Arizona State University and the US federal authorities in August 2012 found Minnesota waterways to be contaminated by cosmetic ingredients. Substances like triclocarban and triclosan, which are anti-bacterial agents that are commonly present in soaps, disinfectants and sanitizers, are getting into fresh waterways from waste treatment plants after entering sewers from consumer households. Apart from their endocrine-disrupting abilities, anti-microbial chemicals are toxic to aquatic bacteria and do harms to the microbial system. Triclosan, for example, prohibits photosynthesis in diatom algae, which is responsible for an extensive part of the photosynthesis on Earth (Sahota Amarjit 2013, 4).

Another ingredient of cosmetic products causing damages to the environment is microplastic. For exfoliating and texturizing purposes, formula makers introduced these tiny beads into soaps, scrubs and shower gels. Microplastics, following the flow of waste water from households to the oceans, are accumulating and disrupting marine ecosystems. Since they are slow to biodegrade and too small to be fil-

tered, they are drifting in water and are ingested by marine creatures and create illness among them (Sahota Amarjit 2013, 4-6).

Cosmetic packaging has a detrimental effect on the environment, especially premium products. To create an appealing look, luxury skin care products and perfumes are typically housed in layers of packaging. On the one hand, such excess packaging is questionable, considering that natural resources are becoming scarce and the wasteful practice contributes to high product price. On the other hand, an overriding concern is the impact on the environment that cosmetic packaging exerts. Plastics are the most widely used packaging material in the cosmetic industry owing to their flexibility and light weight. However, once plastics end up in landfills, they are very harmful and causing serious environmental pollutions, not even mentioning that it takes forever for them to degrade. Moreover, plastic packaging somehow enters into the sea water and has been linked to the injury and death of seagulls, fish and other marine lives (Sahota Amarjit 2013, 6).

The safety of cosmetic ingredients on human health is also the subject of much attention and controversy. Some studies revealed that phthalates - widely used as solvents in hair sprays, nail varnishes and perfumes - act as potential endocrine disruption. Parabens, a family of chemical preservatives present in thousands of cosmetic products, are thought to mimic oestrogen and are linked to breast cancer. Other cosmetic chemicals that are linked to health conditions include aluminum salts, petrochemicals oils, triclosan, formaldehyde, mercury and other heavy metals. It is worth noting that many of these cosmetic chemicals may be associated with health risks, however scientific evidence is often lacking (Sahota Amarjit 2013, 6). Consumer perception is often stronger than reality when it comes to product safety. Fatal toxics are not only flooding in rivers or the seas but also in human body's blood to the extent that they are reported to be found in new born babies (Malkan 2007, 1-2).

To sum up, the cosmetic industry has been "receiving" from the nature more than "giving" protections to it. Apart from the ethical issues behind testing ingredients and final products on animals, the industry is often criticized for its selection and sourcing of raw materials, heavy impacts on the environment and safety level of

finished products. The concern raised up around all these negative impacts by cosmetic products is the underlying motive to begin the refreshing green trend in the industry.

2.5 The green movement in Cosmetic Industry

In this section, the changes that have been made in the cosmetic industry in an attempt to hamper the damages to the environment will be specified. Under the pressure of media, non-profit organizations, laws and consumers, the industry has made gradual changes in order to adapt to needs of a growing percentage of consumers who are concerned about the environment. The green waves started with acquisitions made by international groups, searching for natural ingredients, reduction in packaging, and the use of recycled packaging materials.

By 2006, green marketing was confirmed as mainstream when the giant L'Oréal acquired The Body Shop as well as Sanoflore, a much smaller player (Geoffrey 2010, 330). The success of San Francisco-based Bare Escentuals, founded in 1976, widely stimulated interests in the use of minerals throughout the world. Numerous researches were conducted aiming at exploring exotic flora and new ingredients. Many skin care brands began to incorporate honey, pistachio, almonds, green tea, ginseng, cucumber, and hundreds of other natural ingredients in their products (GCI Magazine 1999).

A Greek cosmetic brand Korres, named after the founder, also became popular with its herbal and floral based products. In Greece, pharmacies traditionally held a special place in cosmetic consumption. In 1989, George Korres began working in a homeopathic pharmacy in Athens, which he took over when the former owner retired three years later. Striking reputation of the herbal products that Korres made for his customers began to spread by word of mouth. In 1996, Korres and his wife Lena Philippou, a chemical engineer, launched their own company. By 2008, they were using 350 different herbs in their products, many of which were unique to Greece (Korres Homepage 2016). A yoghurt after-sun cream, for example, employed popular wisdom in Greece that yoghurt relieved sunburn. Honey, hibiscus, rose, fig, watermelon, sage, and mint tea and other ingredients are the

"heroes" in various products developed by Korres. In a country with few home-grown consumer brands, Korres had past such outsiders like L'Oréal, Pierre Fabre, and Johnson & Johnson to hold the largest share in the Greek pharmacy markets (Geoffrey 2010, 331).

In other parts of the world such as Asia, long-lost beauty secrets from traditional use were also restored and transmitted into modern cosmetic products. By the twenty-first century, there was an extensive search to unveil the herbal and craft knowledge of ancient India and China. This interest has been attracting a lot of Western consumers. In 1992, Vinita Jain, a biochemist graduate from Switzerland as well as a Stanford MBA graduate, founded an Indian herbal cosmetics company named Biotique. By 2000, the company generated sales at \$13 million, 80 per cent of which came from outside India (Geoffrey 2010, 332). Forest Essentials, acquired by Estée Lauder in 2008, was one of a group of similar companies.

More and more companies manufacturing green cosmetic products are entering the market and becoming dependent on biodiversity, since it is a fundamental pillar for sustainability and sustainable development. Countless businesses, especially those companies in food, pharmaceutical, and cosmetics sector, have the responsibility to take actions to conserve and wisely use the natural resources. Some of those companies working with natural ingredients in the cosmetic industry, are already pioneering in commitment to the ethical sourcing of biodiversity. For them, biodiversity makes business sense. As a tool for innovation, biodiversity let companies realize and unlock more potential in their work, and increase real value in the supply chain. From another perspective, ethical sourcing can make a significant contribution to better resource efficiency and social inclusiveness. Through business engagement and practical tools and approaches, ethical sourcing practices provide guidance and support for the sustainable use of biodiversity, the respect of local communities and their traditional knowledge and practices, and the fair and equitable sharing of benefits all along the supply chain. As a result, clients and consumers are increasingly demanding for more transparency and independently-verified ethical sourcing practices from companies in cosmetic industry.

In their attempts to reduce the footprint of their products from the environment, many cosmetic companies have acknowledged the importance of packaging reduction. The tremendous environmental impact of packaging is a reason for this thriving focus. The growing prominence of sustainable packaging is evidently stated in the sustainability plans of large cosmetic companies. Most of such companies have made commitments to lessen the footprint of their packaging on the environment. For instance, Unilever has pledged to cut down on the weight of its packaging by one-third by 2020 in its Unilever Sustainability Living Plan, while Procter & Gamble, also in its sustainability plan has aimed to decrease its packaging by 20% between 2010 and 2020 (Sustainable Cosmetics Summit North America 2012). Aside from environmental impact reasons, high costs of raw material make strong business sense for companies to cut down on the amount of packaging they use. Thus, the drive to improve business efficiency has made packaging reduction 'the norm' in the cosmetic industry.

Recycling is also a potential trend in the course of packaging. Companies are scrutinizing various ways to recycle packaging materials. Glass, aluminum and paperboard have been recycled for a while; nowadays, a growing drive to recycle plastics is capturing attention from the green marketing practitioners. Such cosmetic companies as Neal's Yard Remedies, Aveda, and Physician's Formula Organic Wear, are now using Post-Consumer Re grind (PCR) plastics. For more details, the UK natural cosmetics company Neal's Yard Remedies use no more glass for all its hair care products and shower care products, but 100% PCR polyethylene terephthalate (PET) bottles; Aveda has been packaging its lipstick in recycled aluminum cases; Physician's Formula Organic Wear cosmetic products are accommodated in cardboard containers that are partially made of recycled paper (Organic Monitor 2010). Overall, cosmetic companies are becoming more innovative in sustainable packaging, especially when it is connected to waste management. Upcycling also becomes more and more popular since it involves reusing packaging, discarded objects or material in such ways that new applications or another product of higher quality or value is created.

The green movement in the cosmetic industry, in short, is engaging in the pursuit of sustainable solutions for every single production and consuming activities. The efforts of spinning the green wheel forward have been shown in the reduction of chemical ingredients, replacing them with natural ingredients, ethical sourcing, minimization on packaging, recycling and upcycling packaging. However, the industry need to take greater steps to enhance the long-term sustainability and to make it a global norm.

2.6 Summary of the chapter

This chapter has been introducing salient facts and figures regarding the cosmetic industry in Finland and around the world. By reviewing definitions and classification of cosmetic products, as well as looking at the industry through a green lens, it has described the importance and impacts of cosmetics in global economy and human living activities. Along with the industrialization, globalization and civilization processes, the cosmetic industry has evolved from merely scents for women in ancient markets to bottles of cream and paste with complicated chemical content. The aftermath of this evolution is not only the dependence of human being on cosmetics, but also an endangered environment and vulnerable components of the human society. A number of for-profit and non-profit entities have listened to the mourning of the environment and the weak people, and attempted to make changes. Even though the green trend has never been strong and constantly growing like at the present, the cosmetic industry still has a long way to go before the environment can again find its production, promoting, logistics, consuming, and disposing activities tolerable.

III. GREEN CONSUMER BEHAVIOR

From the management perspective, environmental management exerts a positive influence on financial performance, which reinforces commitment to green management (Molina-Azorín et al. 2009; Huang and Kung 2011). In addition, various firms have implemented green marketing strategies, and begun taking on environmental aspects to gain competitive advantages (Chen and Chai, 2010). To this end, it is imperative to understand green consumer profiles and behavior before firms can develop new targeting and segmenting strategies (D'Souza et al., 2007).

This chapter of the thesis aims at reviewing green consumer behavior literature. It is started with the most basic concepts of consumption: needs of consumers. Then, purchasing behavior and factors that influence purchasing behavior are discussed. At the end of the chapter, definitions of market segmentation are reviewed and the variables used for segmenting in the empirical research will be presented.

3.1 The Green Consumer and Needs

Different people have different needs, that is why one single product carrying a specific number of traits cannot satisfy the whole population in a market. In order to establish a solid ground of comprehension on market segmentation, this section seeks to answer two questions, (1) "What are consumer needs and the role of needs in market segmentation?", and (2) "How did previous researches perceive needs and wants in green consumer's shoes?".

Needs have been defined and classified many times in various ways by various researchers. Needs are the source of motivation for everybody to pursue their desired goals. 'Needs' are the basic forces that control a person to do something. Need is the most basic human requirement (Kumra 2007, 51). Customer decision-making is started with need recognition. When there are differences between the actual state of being from a desired state of being, the customer recognizes that a need exists. The act of buying a product carried out by a customer is the result of needs triggering him to fulfill some type of demand.

Just like in traditional marketing, consumer needs stand in the center of green marketing since it is totally their choice to whether accept green products or not. In other words, the consumer is the one who desires to reduce his/her environmental footprint by means of sustainable consumption (Laroche et al., 2001) and the marketers' role is concentrated in fulfilling these needs (Polonsky, 1994; Prakash, 2002).

Studies reveal that, since the 1990s, consumers have become more aware of environmental problems and concerned about the level of environmental harm caused by products they use on a daily basis (Johri and Sahasakmontri, 1998; Straughan and Roberts, 1999). This awareness is reported to be high in the developed countries, and the emerging economies like China, India, Brazil, etc. are also witnessing an uptrend in alertness. The change in consumers' needs to more sustainable products and services has added to the salience of green marketing and a response to the needs, which are nothing else but green products and process innovation (Ottman, 2006).

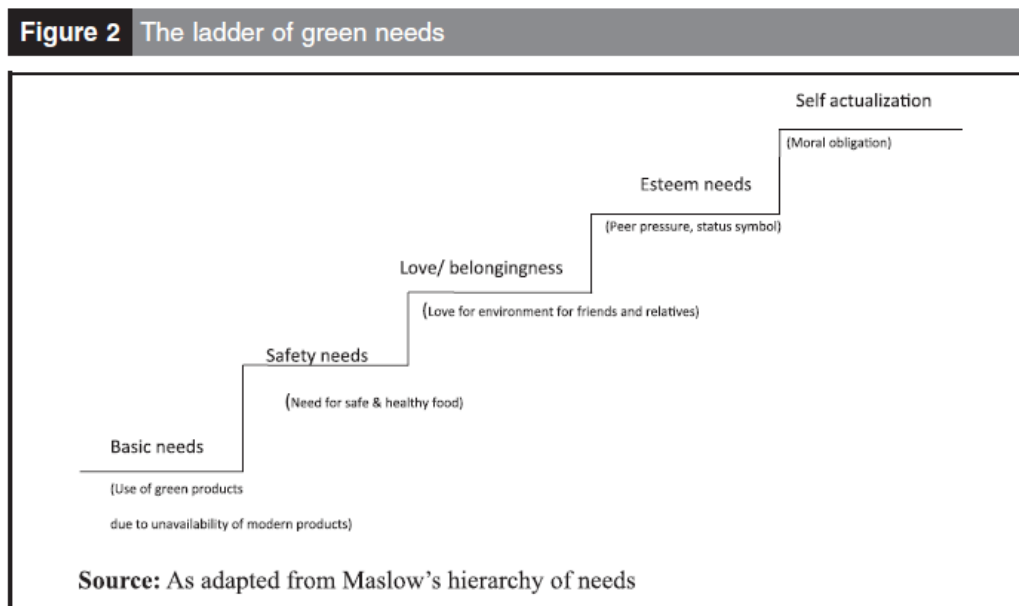


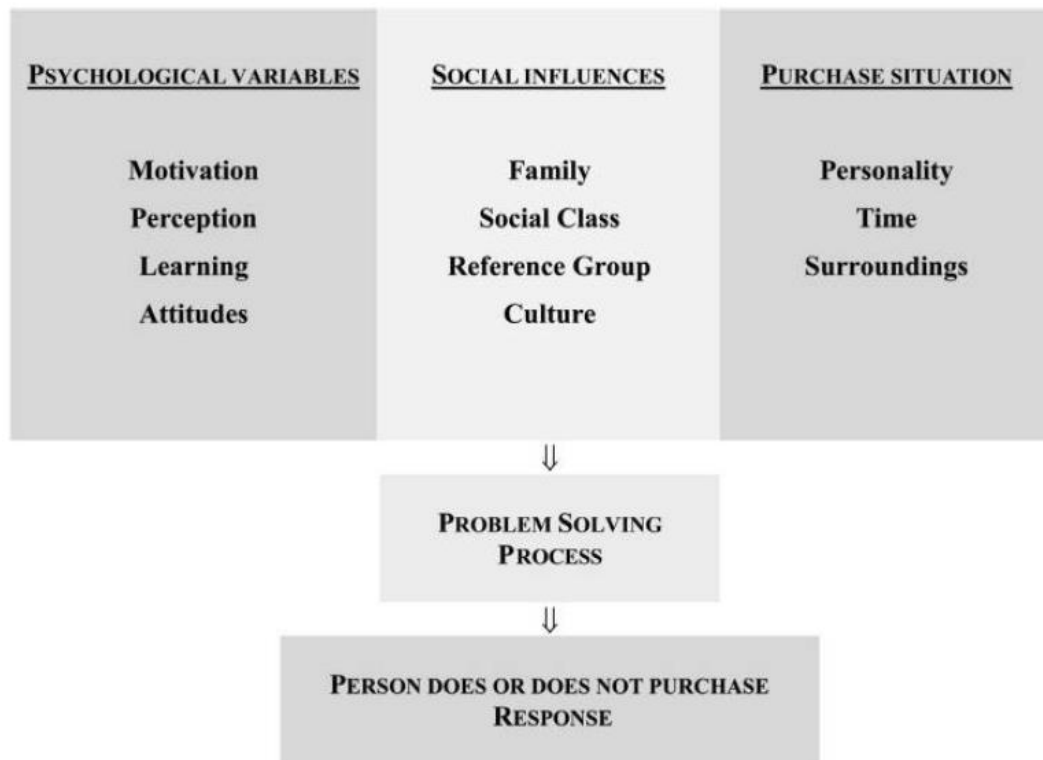
Figure 2 The ladder of green needs

The questions remain are, what the needs of green consumers are, how the green needs interfere with the basic need sets as in the needs theory developed by

Maslow. In their researches, Peattie (2001) and Ottman (1993) have separately identified four universal green consumer needs, i.e. the need for information, the need to make a difference, the need for control, and the need to maintain current lifestyles. As indicated in the ladder of green needs adapted from Maslow's hierarchy of needs, people use green products for the sake of their safety-related needs, love for environment, friends and relatives who live in the environment, needs to keep up with some status symbol, and finally, need for a moral feeling. To modify further, consumers want a healthy and safe environment and are concerned about the well-being of their families and relatives and at a larger level about the well-being of people and other living creatures on the planet. At the next level, the needs related to love and belongingness are expressed for people, the welfare of society and the environment and for Mother Earth. Consumers buy green products to raise their self-esteem, as they desire to see themselves belonging to a socio-economic class above the average and professional occupations of recognition and status. The same way, they wish by fulfilling these needs, they can derive self-expressive benefit from the visible consumption of green products, thus being distinguished from their peers. At the highest level of needs for green solutions, green products and services are bought to fulfill their self-actualization needs, that is, sustainable consumption is practiced as a part of consumers' moral obligation to protect the society in which they are inhabiting.

The ladder of green needs gives acceptable explanations to the transformation of basic needs into green needs of consumers, thus, fits the context of the study very well. It sheds light on the motives behind purchasing behavior of consumers who spend on pro-environmental products.

3.2 Green purchasing behavior



Source: McCarthy and Perreault (2002)

Figure 3 - A model of buyer behavior (McCarthy and Perreault 2002, 158)

After looking at "needs" - the cornerstone of buying decision-making process, the chapter continues to examine buying motives at a bigger scale with a green touch. In other words, this section will focus on identifying varied groups of factors that have impacts upon purchasing behavior, and the most remarkable factors when it comes to buying green products.

Typically purchasing behavior is mainly influenced by three groups of factors: psychological factors (attitudes, perception), social influences (culture, social class), and purchase situation (store environment, timing issues), (Weber and Villemagne 2002). With no exceptions, these three groups of factors also rule over the green purchasing behavior. In the literature body, certain factors have been researched more often than others to analyze the connection between the factors and green purchasing behavior.

Key factors influencing a customer choice in regards to green products are psychological benefits, desire for knowledge and novelty-seeking, whereas, concluded in some researches, price and quality of green products are not the determinants (Hirschman, 1998; Lin and Huang, 2012; Luzio and Lemke, 2013). Such distinctive characteristics of green products as recyclability, minor pollution and economical purpose may persuade consumers to buy pro-environmental products (Bei and Simpson 1995; Essoussi and Linton 2010).

Customers' awareness of green products remains one of the most important factors that shall not be ignored. It is hard to describe how confused green consumers are due to the lack of information they obtain every now and then, as revealed in studies on the behavioral pattern of consumers by Carlson et al. (1993), Davis (1993), and Crane (2000). This confusion is the result of low awareness and knowledge about green products. The confusion is also rooted from the lack of efforts on the manufacturer's side to provide the right details. In developing countries, fewer people consume these products because of the lack of certification standards and eco-labels (D'Souza et al., 2006). Careful labeling and informative advertisements are crucial tools to break down the knowledge barrier (Hartmann et al., 2005; Rahbar and Wahid, 2011). Consumers who are more knowledgeable about environmental issues are inclined to spend more on green products (Hirschman, 1980; Laroche et al., 2001; Michaud and Llerena, 2011). A study on Indian consumers suggested that the consumers knew about the environmental problems in and out the country's border, and agreed that proper communication of green ideas would help people become more concerned about environment and thus, make buying decisions on the basis of this knowledge (Jain and Kaur, 2004).

Consumption value is also a determinant in influencing consumer choice with respect to green products, since those consumers who express high environmental concerns demonstrate generous support for green products. In some contexts, provision of subsidies by government and encouragement by green groups and non-profit organizations urge people to go green, as these might help to overcome cost barriers.

Previous studies by Roberts (1995, 1996) and Straughan and Roberts (1999) revealed that environmentally friendly behavior may also be dependent on peer pressure or personal factors. For example, consumers who belong to special interest groups, such as environmentalists, have a tendency to purchase green products out of compulsion. This means that, if a consumer's belief of green is in conformance with the group ideology, it exerts greater impact on green products purchasing. Before that, studies by Triandis (1993) and McCarty and Shrum (1994) adopted a cultural approach to green consumer behavior, by analyzing the differences between consumers who practice individualism (a social theory that is in favor of freedom of action for individuals over collective or state control) and consumers who adore collectivism (the practice or principle of giving a group priority over each individual in it). They suggested that collectivist people are likely to be friendlier to the environment, while individualists tend to be more unfriendly. Following this findings, a study in Singapore proposes that green consumers are more socially integrated, open-minded and cosmopolitan when compared to non-green consumers (Shamdasani et al., 1993).

The purchase of green products also depends on the basis of personal factors (Kalafatis et al. 1999). An increasing number of consumers agree to pay extra for green products, provided that they offer the same level of satisfaction as compared to conventional alternatives (Bei and Simpson, 1995). The consumers are not easily compromising on traditional product attributes such as convenience, availability, price, quality and performance (Berger and Corbin, 1992; Ginsberg and Bloom, 2004). To be exact, consumers would be pleased to get involved in recycling their used products, only if it is convenient or the process is assisted by the company or government.

In summary, the target customer of green marketing, the 'green consumer', has been conceptualized as a reasonably rational decision-maker who acts on beliefs and awareness, purchase green products because of the social class or group they want to belong to, appears to be more sensitive to convenience, quality and performance than to price.

3.3 Market Segmentation and Identification of green segments

Several researches aiming at identifying green segments were conducted across the world. They were carried out in many countries and based on numerous variables by assigning individuals to relatively homogeneous groups, for example environmental consciousness (UK), psychological factors, social influences, and the purchase situation (USA and France, Weber and Villebonne 2002), attitude and behavior (China, Germany and Turkey, Baris and Angi 2015), and so on. From an overall look, the aforementioned variables can be listed as, namely age, gender, family, place of residence, religion, income, lifestyles, subculture, education, job, social class, personality, political orientation, motivation, values, environmental knowledge, concerns, attitudes, and behavior (do Paço and Raposo, 2009).

3.3.1 Market Segmentation

According to Kotler (1995), market segmentation is the act of splitting a market into distinct, meaningful, and identifiable but possibly overlapping subsets, so that marketers can target one or more subsets by utilizing a specific marketing mix.

Market segmentation is defined as "the necessary process of dividing a very broad heterogeneous (dissimilar) group of individuals into smaller cluster groups of potential consumers exhibiting similar (homogeneous) needs, wants, desires and behaviors for an identified product with its performance attributes" (Jobber 2010). Given that the idea of 'need' has been mentioned in the previous section, modifying to this definition of market segmentation, the current study adopts the latter definition.

Segmentation is a powerful component of marketing strategy. Failure to segment the market at all, when competitors are doing so, can lead to almost catastrophic consequences. For a number of reasons, marketers need to segment the total market. It is extremely costly and time-wasting to try to address all the diverse needs and wants of a broad and large market, also called the mass marketing approach. Some organizations in the beginning could take the mass market approach to sell the one-size-fits-all products. These organizations may later, however, find that it

would generate greater profits and logistical benefits to find a smaller group of customers who are 'most likely' to have the need for, and thus purchase, their products.

Market segmentation is also very important in the situation where marketing resources are limited, thus need to be used more efficiently and effectively. Good segmentation will remarkably reduce advertising and communication wastage.

There are five sets of variables that can be selected in the marketing segmentation process, namely geographic, demographic, geo-demographic, psychographic, and behavior patterns variables (Proctor 2002). Then, among the most popular choice of variables for grouping the market are those of demography, based on measurable and easily identifiable attributes. It must be noted, however, that these only give a basic, one-dimensional description of the customer. Further segmentation can be based on behavioral variables and psychographics. In the coming sections of this chapter, demographic, psychographic and behavioral variables will be all looked at.

3.3.2 Demographic variables

As for demographic variables in market segmentation, such variables as age, gender, occupation, income, final level of education, and regularity of product usage are covered in this section. The demographic variables of religious, racial and ethnic background is skipped due to its irrelevance.

In terms of age, this variable was researched at by numerous authors; many of them suggested that young consumers tend to be more sensitive to green marketing issues. Over the last two decades, nevertheless, various studies described the green consumer as being older than average (Sandahl and Robertson, 1989; Roberts, 1996; D'Souza et al., 2007). There are studies insisting that no significant correlation can be noticed between age and environmental attitudes/behavior (McEvoy, 1972; Kinnear et al., 1974; Straughan and Roberts, 1999). On the one hand, some studies suggest that there is a significant and negative correlation, while on the other hand, other studies have found a significant and positive corre-

lation between age and environmental sensitivity and behavior (Sandahl and Robertson, 1989).

As they scrutinized the variable of gender, many researchers such as McEvoy (1972), Brooker (1976), Van Liere and Dunlap (1981), Robert and Bacon (1997), Straughan and Roberts (1999), argued that female consumers are more likely to present pro-environmental behavior and purchase green products, based on the development of roles, skills, and attitudes by each gender. The argument is, however, not firmly backed by conclusive results in their studies. Mainieri and Barnett (1997) state that women are likely to be more pro-environmental than men, which is indicated as they buy more green products and participate more in the separation of packages for recycling, but they did not find any significant differences between the two genders in terms of their participation in activities for conservation of natural resources or participation in environmentalist groups. In another study, Reizenstein et al. (1974) recognized that men were more willing to pay more to control air pollution and Balderjahn (1998) argued that the relation between attitudes and use of environmentally friendly alternatives was more intense in men than in women.

Individuals with higher educational levels and consequently enjoying access to more information tend to display greater concern in favor of the environment and act accordingly, of course even in their product choice. A substantial majority of studies have noticed a positive relationship between the level literacy and green consumer behavior (Schwartz and Miller, 1991; Roberts, 1996; Zimmer et al., 1994). For more details, Granzin and Olsen suggested that the relationship between the variable 'education' and the variable 'walking for environmental reasons' (instead of using a car) appeared to be positive. However, this variable's explanatory capacity is not confirmed amongst other studies. For example, Sandahl and Robertson (1989) and Straughan and Roberts (1999) observed that education did not have a positive relation with green consumer behavior.

It is generally assumed that level of income is positively correlated with purchasing behavior of pro-environmental products and environmental sensitivity, due to the common belief that most green products have higher prices than conventional

alternatives. The most acceptable justification for this assumption is based on the fact that consumers with a higher income level can more easily bear the increase in the costs associated with supporting and buying green products. The results of the studies by Berkowitz and Lutterman (1968) and Henion (1972) are suggesting that consumers with middle and high incomes who have completed a higher educational level are more inclined to display a pro-environmental consuming behavior. However, environmentally friendly behavior did not appear to be consistent across the various income ranges and different studies (Zimmer et al., 1994; Roberts, 1995, 1996; Roberts and Bacon, 1997). Sandahl and Robertson (1989) concluded in their study that environmentally conscious consumers had a lower educational level and lower income than the average for Americans as a whole. As a result, they came to a conclusion that income and educational level were not very reliable variables for predicting environmental concern or buying behavior.

To reach the final point, it is reasonable to present a sketch of the heavy user of pro-environmental products that are introduced in a number of studies. As pioneers in studying the profile of green consumers, Anderson and Cunningham (1972) profiled the typical green consumer as female, 40 years old, with a high final education level and socio-economic status above average. Another study claims that green consumers are most likely to be well-educated, adult men or women at their young age who have greater budget to spend on green products, and expect green products to function as effectively as non-green products (Laroche et al., 2001). It seems that the typical consumer differs, either slightly or considerably, from context to context.

3.3.3 Psychographic variable

Psychographic variables are any attributes relating to personality, values, attitudes, interests, lifestyles, willingness to pay, and environmental consciousness. The section deals with each of the listed variables to provide insights into theories in previous literature.

It was in the 1960s that the concept of lifestyle first began to be used more frequently by marketing managers in research undertaken into the phenomena of

buying and consumption (Plummer 1974). This concept is based on the study of people's activities, interests and opinions. As far as the question of activities is concerned, it is likely that those individuals who are more closely involved in community and/or socially responsible activities may display a more pro-environmental behavior.

Since the 1970s, variables relating to personality have been used in segmentation studies, but, according to Cornwell and Schepker (1995), two of these variables have been given more attention than the others: locus of control (which describes the extent to which the individual perceives that a reward or improvement depends on his behavior), and alienation (the individual's feeling of being isolated from his community, society or culture). The first variable was examined in some studies related to environmental concern. In turn, the variable 'alienation' has been used in several studies of pro-environmental behavior. The variables of personality have shown a high level of correlation with environmental consciousness. However, the fact remains that the results have been inconsistent in regard to specific pro-environmental behavior, such as green product buying decisions.

Values are viewed as principles that guide the formation of attitudes and actions (Rokeach 1973), but not always lead to behavior in real purchasing situations. Consumers' attitudes affect their thoughts (the cognitive function) and feelings (the affective function), and thus influence behavior such as purchasing behavior (Hoyer and MacInnis, 2004). This implies that marketers should seek to change consumers' attitudes so that they can influence consumers' decision making and behavior, by changing their evaluations through adding new beliefs and targeting normative beliefs, using such tools as brands (Ajzen and Fishbein 1980). The research carried out by Homer and Kahle (1988) provided the empirical support for the hierarchical effect of the 'value-attitude-behavior' model in the case of ecological food. Individuals buying products of this type gave greater importance to the values of internal orientation (self-realization, happiness and fun, a sense of completeness and self-respect) whereas those who did not buy them seemed to be more geared towards external values (sense of belonging, being respected and safety).

A number of different instruments have been used in the above efforts to measure environmental consciousness. On the substantive front, these vary in the extent to which they incorporate different green issues, such as population control, natural resources and energy consumption. For example, some studies have focused on concern about acid rain (Arcury et al. 1987), recycling issues (Vining and Ebreo 1990) or pollution (Ramsay and Rickson 1976), while more common practices have been to either aggregate items dealing with these various substantive issues into single environmental measures (e.g. Hackett 1993; Jackson 1985) Maloney et al 1975), or to develop a number of measures, each covering specific issues (Tognacci et al. 1972, Witherspoon and Martin 1992). To evaluate this ecologically conscious behavior Roberts (1996) developed the ECCB scale, also used in Straughan and Roberts (1999), which considered a wide variety of behaviors. In order to be green, it may be argued that individuals require an understanding of the consequences of their behaviors (Bohlen et al 1993, p.417). In this context, positive attitudes towards the environment are not necessarily indicative of high levels of environmental knowledge (Ramsay and Rickson, 1976).

Price is one of the main attributes on which purchasing decisions are based (Gadema and Oglethorpe, 2011; Mai and Hoffmann, 2012), thus, price-sensitivity can be considered a psychographic variable. Previous research examined the price-sensitivity of consumers towards green products, and revealed that price is an insignificant factor in purchasing eco-labeled goods (Grankvist and Biel, 2001) or green food (Tanner and Wölfing Kast, 2003). Consumers, especially those with environmental concerns, are reported to be less sensitive to price (Olson, 2013; Tanner and Wölfing Kast, 2003) and are willing to accept trade-offs between environmental benefits and higher expenditures (Laroche et al., 2001). Green products are often perceived as being more expensive than their conventional counterparts. If individuals are not willing to pay premium prices charged for environmentally friendly products, buying green is unlikely.

3.3.4 Behavioral variable

Chan's (1999) research on market segmentation on the basis of usage rate of green products, and on how the segments differed in terms of their demographic profile,

perception and attitude towards the purchase of green products, resulted to some consumer profiles. Consumers who show a high utilization rate of these products (Heavy Green Consumers) seemed to be more influenced by other people's opinion. Those who had a strong sense of identity and were concerned about the environment, were the government and environmentalist groups. Those who purchase much less (Light Green Consumers) showed a low usage rate, and thought that pro-environmental products were harder to find.

Once again, consumers' buying decision is not always based on the consumers' attitudes towards the environment, despite that these attitudes can in some cases strongly influence their purchases (Vlosky et al. 1999). Several studies have investigated the relationship between attitudes towards the environment and the buying of products or the intentions of use. It seems that the more closely involved consumers are with the environment, the more likely they are to buy green products.

3.4 Summary of the chapter

In researches about market segmentation, consumer behavior and the segmenting variables should never be ignored. Following that, this chapter has been developed focusing on needs and wants of consumers, their purchase decision-making determinants, and the segmenting criteria, all from a pro-environmental point of view. At the end of the chapter, the audience should understand that (1) needs for green products are not in fantasy but can totally be explained on the basis of Maslow's model of hierarchy of needs, that (2) market segmentation is extremely important and helpful in marketing, and (3) such attributes as age, gender, family, place of residence, religion, income, lifestyles, subculture, education, job, social class, personality, political orientation, motivation, values, environmental knowledge, concerns, attitudes, and behavior of each consumer can influence his decision on purchasing green products.

IV. METHODOLOGY

This chapter focuses on explaining the reasons for the choice of the used research methods, how the empirical research is conducted, as well as on introducing the case companies. Next, the results of the empirical research are revealed and discussed.

4.1 Choice of research method

As noted in the very first chapter, quantitative research and literature review are the two research tools used in this study. Literature review is important because of a great deal of reasons. It demonstrates the most fundamental issues and their relevance to the current study. It helps understand the most often discussed topics, the controversies and the neglected. Above all, a literature review allows the author to map the field and position the thesis within the context. Moreover, it also justifies the reason for the existence of the current study by indicating the gap which the study could fill. Lastly, literature review helps build the theoretical framework and the empirical research, since the study must be in relation with what has been done in order to be considered valid.

Quantitative research is a research method functioning on the basis of the measurement of quantity or amount, applicable to phenomena that can be expressed in terms of quantity (Kothari 2004). A questionnaire, which is to be handed out to potential consumers to gather information about, for example in the context of the current study, buying behavior, attitudes toward green cosmetic products, and environmental consciousness, will provide a ground for market segmentation. The larger group of consumers that participate in the survey, the more exact the research results are likely to be. Moreover, to identify the proportions of different groups of customers in a market, cluster testing, which functions on the basis of a statistical data set, plays an essential role in data analysis. For these reasons, I believe that quantitative research is a rational choice.

4.2 Questionnaire design

The quantitative research approach will take form of a questionnaire survey in this study. A questionnaire is developed and distributed to cosmetic consumers in Vaasa, Finland. The questionnaire includes twenty-three questions divided into four sections, examining the respondents' intention to buy pro-environmental cosmetic products, attitudes toward those products, and global environmental concern. It begins with seven demographic questions for the purpose of classifying the respondents into different groups. At the end of the questionnaire, the respondents have some space to fill in their names and email addresses, if they wish to get informed of the results of the study. Confidentiality is highly respected, thus, the identities of the respondents are not publicized but kept secured. A copy of the questionnaire can be found in the appendix section.

Since the selected green segmentation criteria are buying intention, attitudes toward green cosmetic products, and global environmental concern, the questionnaire is built surrounding these variables. Questions regarding intention buying green products originated from Ottman's book 'Green Marketing: Opportunity for Innovation', Green Gauge questions (Ottman, 1998). The range of responses to the questions was 'Extremely unlikely', 'Unlikely', 'Neutral', 'Likely', and 'Extremely likely'. Environmental concern items emerged from HEP-NEP general environmental beliefs questions (Dunlap and van Liere, 1978). The HEP-NEP questionnaire has been cited and counted on by many researchers since its first publication; it is thus considered an unofficial standard (Bechtel, 1997). 'Strongly agree', 'Agree', 'Neither agree nor disagree', 'Disagree' and 'Strongly disagree' are the options among which the respondents can choose one. Attitudes toward green cosmetic products are measured by skepticism towards green marketing messages, price sensitivity, and preference over a greener alternative

4.3 Sampling Method

The selected sample is cosmetic consumers in Vaasa, Finland, who, during April 2016 as indicated in Table 2, visited the following stores: The Body Shop Vaasa, Sokos Emotion, and Life Vaasa Hoivioikeudenpuistikko. It was decided to take consumers in Vaasa as the sample mainly because of convenience in geographical

distance and willingness of the entrepreneurs to cooperate in conducting the research.

Store	Address	Timetable
The Body Shop	Rewell Center 127 65100 Vaasa	Tuesday 12.4.2016 (13 - 15) Wednesday 13.4.201 (13 -15.30)
Sokos Emotion	Rewell Center 127 65100 Vaasa	Wednesday 13.4.2016 (13 - 15.30) Friday 15.4.2016 (17.30 - 19.00)
Life	Hovioikeudenpuistikko 15 65100 Vaasa	Tuesday 12.4.2016 (10 - 12.30) Friday 15.4.2016 (15 - 17.00)

Table 2 Location and Timetable of the Data Collecting

With the permissions granted by the entrepreneurs of The Body Shop and Life, as well as the shop manager of Sokos Emotion, I, as the researcher, was present at the locations during the scheduled time and convinced store-visitors to participate in the research. Hard copies of the questionnaire were handed out to a total number of 180 customers, who then filled in and returned them to the author. The respondents have to be over 18 years of age.

4.4 An overview of the case companies

A very brief introduction to the case companies and general information about the individual retail stores will be uncovered under this section.

4.4.1 The Body Shop

Originally from the UK, The Body Shop was founded in 1976 by Anita Roddick as a cosmetics and skin care company. In March 2006, The Body Shop was acquired by L'Oreal and started to grow stronger and bigger in many markets around the world. Until now, The Body Shop is present in 61 countries with a range of 1200 products to offer. In Finland, The Body Shop is exclusively imported and distributed by Bodim Port Ltd. There are 31 stores, 25 out of which are owned by Bodim Port Ltd., while the remaining six are sub-franchise shops which are

owned by individual entrepreneurs. The Body Shop Vaasa is one of the six sub-franchise shops, and the only one in the city of Vaasa. (Bodim Port 2016)

4.4.2 Sokos Emotion

Sokos Emotion, or Emotion for short, specializes in beauty and well-being, offering a wide range of top brands of cosmetics, fragrances, hair care products, daily cosmetics, jewelry, and health products. Emotion stores are situated all over Finnish town centers and shopping malls. The Emotion shop in Vaasa is located in Rewell Center, a shopping mall, with a great deal of top brands for both women and men, such as Lancôme, Dior, Chanel, Biotherm, Yves Saint Laurent, Clinique, Boss, and so on. The shop is considerably large, thus, it welcomes a larger number of shop-visitors everyday compared to the other two stores (Sokos Emotion 2016).

4.4.3 Life

Life Finland Ltd. is a subsidiary of Life Europe AB, with more than 100 stores across Finland. At Life, customers can find products that supplement physical activities and nutrition, medicines, and many types of products other than cosmetics. Even though cosmetics are not the main type of product, Life offers a substantial number of options ranging from soaps, shampoos, moisturizers, to hair dye, etc. Life Vaasa Hoivioikeudenpuistikko is also owned by an entrepreneur (Life 2016).

4.5 Results

The primary data collection generated 180 responses, out of which, only 172 are valid for analysis. To be considered valid, a response must be handed back to the researcher with no questions left blank. Eight unqualified responses unfortunately contain a number of unanswered items, thus, they are eliminated from the analysis. The responses are encoded and manually entered into an Excel file, which is then imported and analyzed using IBM SPSS Statistics 23.

In this section, demographic characteristics of the sample will be analyzed, followed by clustering results using Two-step cluster test, and discussions over the findings.

4.5.1 Demographic characteristics of the sample

As shown in Table 4, the number of valid responses collected from The Body Shop, Sokos Emotion and Life stores were 50, 65 and 57 respectively, altogether yielded a sum of 172. The respondents from Sokos Emotion exceed those from The Body Shop and Life in number most likely because the area of Emotion store is roughly twice and three times as large than that of Life and The Body Shop respectively, and it offers a wider diversity of the cosmetic product lines and product brands.

		Group			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	The Body Shop	50	29,1	29,1	29,1
	Emotion	65	37,8	37,8	66,9
	Life	57	33,1	33,1	100,0
	Total	172	100,0	100,0	

Table 3 Distribution of respondents from the three stores

As anticipated, the proportion is not sufficiently balanced between the two genders but heavily skewed towards female respondents, as shown in Table 5. Out of 172 respondents, there were 166 women, accounting for 96,5% of the sample, and 6 men, 3,5% of the sample. This result reassures the decisive role of women in purchasing power with regards to cosmetic products. Unlike a part of male population in East Asian countries such as South Korea and Japan, Finnish men demonstrate very weak or almost no intention or need in buying cosmetic products, not mentioning the products in the green class.

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	166	96,5	96,5	96,5
	Male	6	3,5	3,5	100,0
	Total	172	100,0	100,0	

Table 4 Gender of the respondents

As far as the age of the sample is concerned, 75 questionnaire participants are from the age of 18-24, 54 people are aged between 25-34, while the total number of questionnaire participants aged between 35-44, 45-54, 55-64 and 65 or over are markedly smaller, i.e. 14, 12, 8 and 9 respectively (Table 6). The fact that the group of respondents younger than 35 years old represents 75% of the sample, outweighing the older group, suggests that consumers under 35 years of age are more likely to be interested in shopping for cosmetic products in these stores. Particularly, the consumers under 35 years of age display a stronger tendency to spend more time on searching for cosmetic products, and money on purchasing them than the remaining 25% of the sample.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	75	43,6	43,6	43,6
	25-34	54	31,4	31,4	75,0
	35-44	14	8,1	8,1	83,1
	45-54	12	7,0	7,0	90,1
	55-64	8	4,7	4,7	94,8
	65 or over	9	5,2	5,2	100,0
	Total	172	100,0	100,0	

Table 5 Age of respondents

The frequency of cosmetics buying of the sample is exhibited in Table 7. As being asked how often they buy cosmetic products, including skin care and make-up products, as much as 88% of the respondents admitted that they buy cosmetics once or more than once every three months. The rest of the sample, 20 respond-

ents or 12%, spend much less on cosmetic products, only once in six months or once a year. None of the respondents claims on non-usage of cosmetics.

Frequency

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Once a month or more often	52	30,2	30,2	30,2
Once in two months	49	28,5	28,5	58,7
Once in three months	51	29,7	29,7	88,4
Once in six months	17	9,9	9,9	98,3
Once a year	3	1,7	1,7	100,0
Total	172	100,0	100,0	

Table 6 Regularity of cosmetic product purchasing

In terms of the occupation of the respondents, the largest groups are students, with 60 people, followed by other professions, 36 people including teachers, doctors, nurses, journalists, etc., and professional/technical workers, 25 people. The medium groups include service workers, sales, and managers/executives/administrators, with 17, 14 and 13 people respectively. The rest of the sample are working in clerical, machine operating/inspecting, or labor positions, as demonstrated in Table 8.

Income per month of the sample is measured on the scale €1499 or under/€1500 - €2499/€2500 - €3999/€4000 - €6999. This range is adopted, after collecting information about salaries of different positions in 20 different companies in Finland from www.glassdoor.com (2016). As indicated in table 9, the number of respondents who earn less than €1500 per month is 77, from €1500 to €2499 is 54, and from €2500 to €3999 is 30. The rest of the sample, 11 respondents, disclosed their monthly salary fall between €4000 and €6999. The highest level, €7000 or more per month, was however not selected.

As for the final education level of the sample, 13% had graduated from high school, 32% had vocational qualifications, 39% hold a Bachelor's degree, 15% completed a Master's degree, and only 0,6% held a Doctoral degree.

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional/Technical	25	14,5	14,5	14,5
	Manager/Executive/Administrator	13	7,6	7,6	22,1
	Clerical	5	2,9	2,9	25,0
	Sales	14	8,1	8,1	33,1
	Machine Operator/Inspector	1	,6	,6	33,7
	Laborer	1	,6	,6	34,3
	Service worker	17	9,9	9,9	44,2
	Student	60	34,9	34,9	79,1
	Others	36	20,9	20,9	100,0
	Total	172	100,0	100,0	

Table 7 Occupations of the respondents

Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	€1499 or under	77	44,8	44,8	44,8
	€1500 - €2499	54	31,4	31,4	76,2
	€2500 - €3999	30	17,4	17,4	93,6
	€4000 - €6999	11	6,4	6,4	100,0
	Total	172	100,0	100,0	

Table 8 Monthly income of the respondents

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school graduate	23	13,4	13,4	13,4
	Vocational Education	55	32,0	32,0	45,3
	Bachelor's Degree	67	39,0	39,0	84,3
	Master's Degree	26	15,1	15,1	99,4
	Doctoral Degree	1	,6	,6	100,0
	Total	172	100,0	100,0	

Table 9 Final education level of the respondents

4.5.2 Clustering results

Since the objectives of the research are to identify market segments on the basis of purchasing intention, environmental consciousness, and attitudes toward green cosmetic products, clustering process is conducted based on data from part two, three and four of the questionnaire. The Demographic variables will be looked at again in their correlations with the clusters after clustering results are revealed.

The answers of the questions are '*Extremely unlikely / Unlikely / Neutral / Likely / Extremely likely*' and '*Disagree strongly / Disagree / Neither agree nor disagree / Agree / Agree strongly*', which are converted into a five-level scale when transferred into the data set (Table 11). Since IBM SPSS Statistics 23 needs numeric data in order to run tests, especially when identifying Mean, the 1 to 5 represent the selected answer of the respondents in the data set, smoothing the process of analysis. Answers from 1 to 3 are treated as negative (equivalent to a "NO") and from 4 to 5 as positive (equivalent to a "YES"). Thus, any Mean value equal to or smaller than 3,5 will be will be treated as negative, and greater than 3,5 as positive.

Extremely unlikely	Unlikely	Neutral	Likely	Extremely likely
'Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
←-----→				
1	2	3	4	5

Table 10 Scale of the answers

The data set, through Two-step Cluster test, generated three different clusters, representing three segments in the market of Vaasa, Finland for green cosmetic products. Cluster 1 contains the largest number of respondents, 74, which is 43,02% of the sample. Cluster 2, to which 60 respondents belong, is as large as 34,88% of the sample. Cluster 3, also the smallest, accounts for 22,09% of the sample with 38 respondents. The most important predictors contributing to the

classification are the following items: "I feel responsible for global warming" (Concern 5), "Natural resources are scarce, thus must be used wisely" (Concern 4), "Avoid buying products from companies that do not practice green marketing" (Behavior 7), "I am willing to pay 15-30% more for a greener product" (Attitude 1), and "I search for information about a green cosmetic product before purchasing" (Attitude 4).

Mean values of the clusters on each measuring item (Table 13) tell stories about the segments. The characteristics of first segment, named '**The Indifferent**', can be scrutinized through Cluster 1. The buying intention of this cluster shows that this group is not practicing pro-environmental behaviors. For example, it is unlikely for them to buy products that are made or packaged in recycled materials, or certified meeting green standards, i.e. BDIH, Ecocert Greenlife, Soil Association, etc. They take no interests in biodegradable soaps or detergents, and most of them do not mind buying aerosol products.

Clustering Result

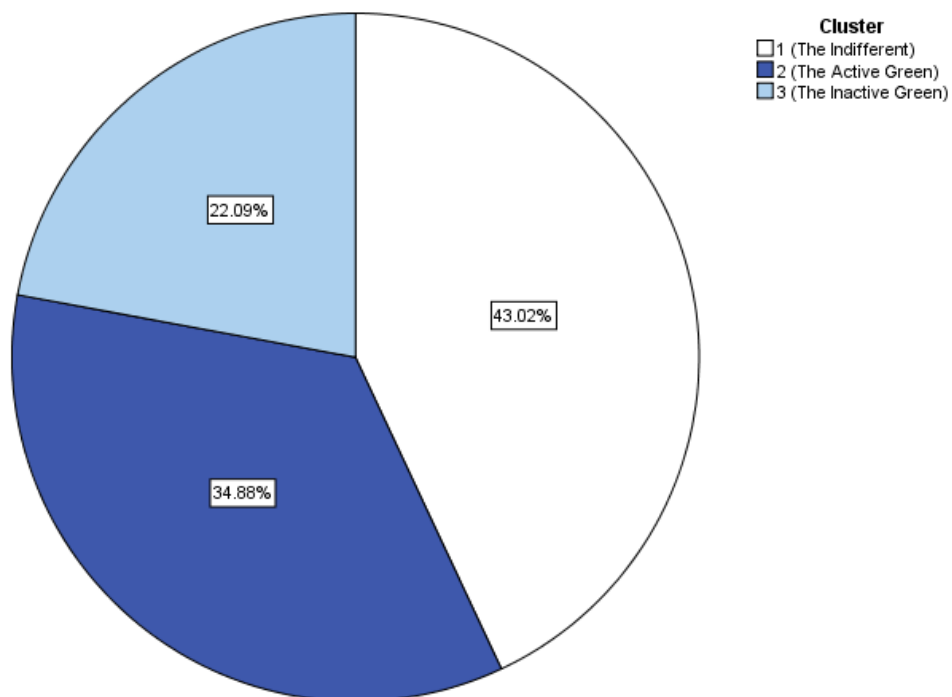


Figure 4 Clustering result

Variable Labels	Equivalent questions
Behavior 1	Use biodegradable soaps or detergents
Behavior 2	Avoid buying aerosol products
Behavior 3	Read labels to see if contents are environmentally safe
Behavior 4	Buy products in packages that can be refilled
Behavior 5	Buy products made or packaged in recycled materials
Behavior 6	Buy products that are certified meeting green standards (i.e.BDIH, Ecocert Greenlife, Soil Association, etc.)
Behavior 7	Avoid buying products from companies that do not practice green marketing.
Attitude 1	I am willing to pay 15-30% more for a greener product.
Attitude 2	I will not buy a pro-environmental product which does not work as effectively as a normal one.
Attitude 3	I trust the marketing messages from green cosmetic marketers.
Attitude 4	I search for information about a green cosmetic product before purchasing.
Concern 1	We are approaching the limit of the number of people the earth can support.
Concern 2	Humans must live in harmony with nature in order to survive.
Concern 3	It is not too late to save the environment.
Concern 4	Natural resources are scarce, thus must be used wisely.
Concern 5	I feel responsible for global warming.

Table 11 Questions and their labels

They show the lightest inclination to read labels of cosmetic products to see if contents are environmentally safe, or to buy products in packages that can be refilled. The cluster demonstrates a hesitant attitude toward pro-environmental cosmetic products, in the way that they refuse to buy a green alternative if it is 15 - 30% more expensive than a normal product, and a green product that does not work as effectively as the normal one. Green marketing messages from cosmetic marketers fail to gain their trust. They do not search for information about a green cosmetic product before purchasing cosmetics. The cluster shows neutral opinions

on the statements "*We are approaching the limit of the number of people the earth can support*", and "*Humans must live in harmony with nature in order to survive*". They present an incomplete unanimity on the sentences "*It is not too late to save the environment*" and "*I feel responsible for global warming*", even though they believe that natural resources are scarce and must be used wisely.

Items	Cluster 1 (The Indifferent) Mean	Cluster 2 (The Active Green) Mean	Cluster 3 (The Inactive Green) Mean
Concern 5	3.56	4.61	1.33
Concern 4	4.04	4.71	2.32
Behavior 7	2.89	4.32	5.00
Attitude 1	2.43	4.32	4.97
Attitude 4	2.17	4.42	4.45
Behavior 1	2.92	4.52	5.00
Behavior 3	2.53	4.52	4.97
Behavior 6	2.45	4.45	4.93
Behavior 5	2.83	4.32	4.83
Attitude 3	2.93	4.42	1.00
Concern 1	3.03	4.65	3.00
Concern 2	3.27	4.84	4.97
Concern 3	3.43	4.39	3.00
Attitude 2	3.24	2.90	5.00
Behavior 4	3.29	3.97	4.82
Behavior 2	3.40	4.10	4.30

Table 12 Mean values of the three clusters

The second segment, whose profile is reflected on Cluster 2, can be called '**The Active Green**'. This cluster shares a positive buying pattern when it comes to environmentally friendly cosmetic products. For instance, using biodegradable soaps or detergents, and reading labels to check the environmental safety level of contents of cosmetic products, are most likely in their to-do-list. On the one hand, they support products that can be refilled, recycled or reused, and products that

carry certification of a specific green standard. On the other hand, they are against products from companies that poorly manage environmental dimension of the business. Attitude of the cluster toward pro-environmental products is more favourable and attentive. They appear to be less sensitive to price, and more tolerant of limited effectiveness of green alternatives. However, they are mildly skeptical about environmental claims from the marketers and, therefore, more active in searching for information about a green cosmetic product before buying. They express considerable concern about the condition of nature, especially in terms of the Earth's ability to supply, availability of natural resources, and global warming issues. According to 'The Active Green', people must live in harmony with nature in order to survive. They believe, that humans still have time to conserve, protect and restore the environment.

Cluster 3 projects an image of the third segment - '**The Inactive Green**'. The respondents in this cluster put a stronger emphasis on fostering the harmony between people and nature, rather than bearing in mind the burden of exhausted natural supplies and others. This could explain why they are more likely to display green consuming behavior than 'The Indifferent', but in a much less pro-active manner than 'The Active Green'. In fact, the respondents in Cluster 3 are in opposition to cosmetic products and companies that are non-constructive to the intimate link between people and nature. They appear to be in favour of the products that reinforce the healthy state of the planet. Although these consumers are willing to pay for a marginally more expensive green product, they find themselves intolerant to low technical quality of the product. To put it differently, the green products must perform as satisfactorily as the conventional options. As much as they support the green cosmetic products, they are extremely judicious on green marketing messages by questioning the genuineness of the information. When making green cosmetics buying decisions, it is important for them to know in advance, what is being discussed in public regarding the products, how it is reviewed by the consumers, and if the marketers are telling the truth.

4.5.3 Discussions

As reviewed in the theoretical framework, green buying behavior is not only influenced by psychological values but also by other factors, such as price, availability of green alternatives, peer pressure, etc. Since Finland is a developed country, where people are well educated and more heavily exposed to the green trend, it is quite surprising that 'The Indifferent' group is over one-third of the sample. People might classify and recycle trash on daily habits, but these habits do not necessarily translate into a strong intention in practicing green consuming behaviors. The reasons for this could be traced to price sensitiveness and low average level of education among the respondents, since 44% of The Indifferent earn €1499 or less per month, and 48% have not completed a Bachelor's degree. A modest part of this group may transfer to The Active Green to become potential customers to green cosmetic products if in the future they earn higher income, because they scored quite high in global environmental concern questions, meaning that they have at least general sympathy for the drained-out environment. From a demographic perspective, a large part of the Active Green group (45%) purchase cosmetic products at least once a month, making this segment heavy users who the marketers should pay attention to. The Active Green receive a higher level of income than The Indifferent, since a bigger proportion of the segment earn more than €1499 per month. The Inactive Green segment is distinctly different from the others, as the heavy users are few, especially those who buy cosmetic products as often as once a month, only 14% of the cluster. The buying power of the segment is limited, as about two-thirds of the cluster have the minimal level of income per month. The variable of Educational level illustrates very weak correlation with the tendency to consume green cosmetic products. The Indifferent and The Active Green share almost the same percentage in terms of Educational Level variable, i.e. almost half of the cluster has completed High school and Vocational school, and the other half has at least a Bachelor's Degree; in the meantime, three-fourths of The Inactive Green hold a Bachelor's Degree or higher education diploma. The variable of Age and Occupation are also not correlated, and thus exempted from the discussion.

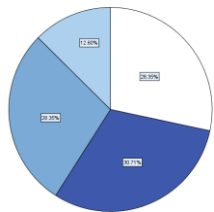
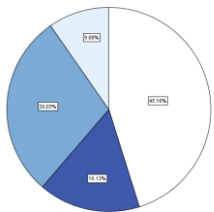
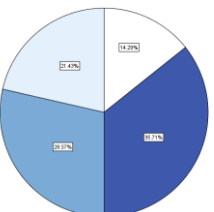
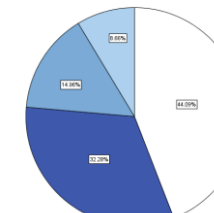
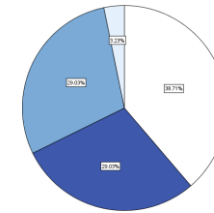
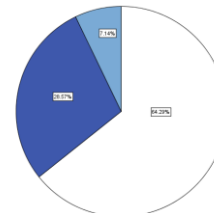
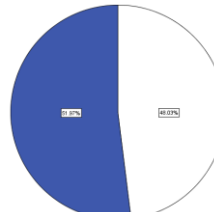
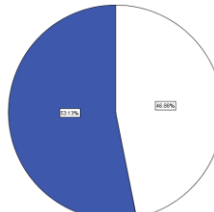
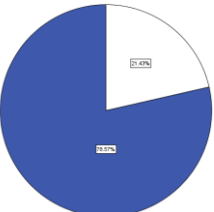
Variables	The Indifferent	The Active Green	The Inactive Green
<p>Frequency</p> <p>Frequency</p> <ul style="list-style-type: none"> <input type="checkbox"/> Once a month or more often <input type="checkbox"/> Once in two months <input type="checkbox"/> Once in three months <input type="checkbox"/> Once in six months or less often 	<p>The Indifferent</p> 	<p>The Active Green</p> 	<p>The Inactive Green</p> 
<p>Monthly Income</p> <p>Monthly Income</p> <ul style="list-style-type: none"> <input type="checkbox"/> €1 499 or under <input type="checkbox"/> €1 500 - €2499 <input type="checkbox"/> €2500 - €3999 <input type="checkbox"/> €4000 or more 	<p>The Indifferent</p> 	<p>The Active Green</p> 	<p>The Inactive Green</p> 
<p>Educational Level</p> <p>Educational Level</p> <ul style="list-style-type: none"> <input type="checkbox"/> Below Bachelor's degree <input type="checkbox"/> Bachelor's degree or higher 	<p>The Indifferent</p> 	<p>The Active Green</p> 	<p>The Inactive Green</p> 

Table 13 Demographic pie charts of the three segments

4.6 Summary of the chapter

This chapter was designed to present all critical points regarding the empirical research of the study. A tailor-made questionnaire was the main tool to collect primary data from a sample of 180 people, out of which 172 responses were useful in the analysis process. The findings suggested that the market of Vaasa, Finland, can be divided into three groups, that are The Indifferent, The Active Green and The Inactive Green, among which the Active Green is the most promising segment for green cosmetic products. Demographics of the individual groups were scrutinize to look for the mutual conformation; these variables of the segments, however, did not appear to be correlated to their purchase of green cosmetics.

V. CONCLUSIONS

In this final chapter, the thesis concludes with limitations of the study, suggestions for green marketing practitioners in the field of cosmetics who are interested in entering the market of Finland. Furthermore, directions for future research is discussed, followed by a discussion on the reliability and the validity of the research. At the very end, the summary of the study is presented.

5.1 Limitations of the study

There is no such thing as a perfect research study. The current study also has its drawbacks, especially in the sample size, diversity of the sample, and limited literature review on the Finnish cosmetic industry.

The sample size plays a crucial role in the accuracy of the sample; the size of the sample in the current study is, however, too small. During the data collection time, the number of customer visits to the stores decreased from earlier weeks, causing the final number of valid responses to be modest. This drop in visits was assumedly due to suddenly colder weather, which unfortunately could not be controlled or avoided, since the schedule was planned ahead of time. In order to measure accuracy, the margin of error and the level of confidence are two criteria to be considered. The recommended level of confidence for most research, even a low-budget study, is 95 percent. The sample size required to give a standard error of 10 at a 95,5 percent level of confidence is computed to be 400 (Wrenn et al. 2007). Therefore, the humble size of the sample might have dragged down the percentage of confidence in the results of the current study.

Another shortcoming of the study is the homogeneity of the gender of the sample. The proportion of female consumers participating in the research surpassed that of male consumers, which was foreseeable and inevitable. As the color cosmetic products and skin care products were targeted in the questionnaire, the overall picture of the sample was expected, that the division of gender would be completely unbalanced. In spite of the obvious homogeneous result, it was still chosen to measure from both genders to see how big, if any, the chance is for skin care and cosmetic product lines for men to bloom in Finland.

The third weakness of the study lies in the limited information of the cosmetic industry in Finland covered in the literature review. The information might be abundantly existent, but in the Finnish language only not in English. Shortage of accessible literature on the Finnish cosmetic industry in English is one of the hindrances of the study. The literature review, therefore, fails to cover a wide area of knowledge about the industry in Finland, which might have caused some important nation-wide hints to be missed out. Available sources of information were mainly websites of some domestic cosmetic companies and beauty blogs.

5.2 Suggestions for green marketing practitioners

Academics, Finnish policy makers, and practitioners can benefit from this study. As for international marketers in the cosmetic industry, understanding the market segments with varying characteristics and profiles is important for achieving success in the target markets. Based on the associated results of the current study, the following suggestions for green marketing practitioners are drawn up to better prepare for Finnish market penetration.

Firstly, technical quality of products must be maintained at an acceptable level, given that most consumers are intolerant to green alternatives that underperform in comparison with conventional options. In this way, high quality of products is the deciding factor that keeps consumers repurchasing the products, which again helps to maximize profits and market shares for companies.

Secondly, skepticism of consumers toward marketers and their environmental claims is a blocking wall that is difficult to climb over. Green marketers, in every single move they make, must be mindful of the possible negative image created. Communicating green messages without proof is easily accused of as greenwashing. It is hard to imagine how friendly a product is to the environment without specific numerical measurements. Therefore, it is important for marketers to record their performance, set targets for cleaner production, devise plans to achieve the targeted performance, and publicize the results. Many international cosmetic companies now choose to show transparency on their CSR reports. In this way, not only are consumers satisfied with the information, but other stake-holders

such as investors, employees, business partners/suppliers/customers are more likely to appreciate the relationship with the companies.

Thirdly, to induce greener purchasing behavior among consumers, manufacturers and retailers should reconsider their pricing strategies for green products. Offering green products at a competitive and reduced price might encourage consumers to choose such product instead of a conventional alternative. Bezawada and Pauwels (2013) found that lowering regular prices is an effective tool for prompting consumers to buy green. Price reductions, however, are no solution in the long-term. Green pricing programs should account for both the economic and the environmental costs of production and marketing, while providing value for customers and a fair profit for businesses.

Fourthly, in order to increase public awareness of the vulnerability of the environment, which to some extent might boost pro-environmental cosmetic categories consumption, marketers can cooperate with non-profit organizations to launch certain campaigns. Such campaigns that highlight the impacts of, for example, cosmetic packaging and residue, process of cosmetic production, etc., on the environment and biodiversity of the Earth, are necessary to enhance consciousness on a large geographical area.

Lastly, to continue from the previous point, non-profit organizations can also lobby lawmaking so that pro-environmental regulations can be proposed and enforced. From a pessimistic angle, the practice of lobbying carries a negative connotation of corruption. Actually, lawmakers are, however, not always aware of every single critical issue happening in the world even though they have extensive staff and resources. Subsequently, organizations like nonprofits are extremely important in building awareness of neglected problems in society in order to seek for legislative advocacy. In this way, green marketers can support the non-profits lobby for pro-environmental laws, which will grant the green marketers advantageous positions in the market in the future when the laws become stricter. In order to do this, the green marketers must, however, forsake profit but prioritize one ideal: all the best for the environment.

To sum up, green marketers could consider and take actions in improving the quality of products, winning consumers' trust by increasing transparency in their

deeds, working along with non-profit organizations to fight for pro-environmental legislation, and promote public awareness of negative impacts of cosmetic production on the environment all over the world.

5.3 Directions of future research

From the findings in the course of this research study, certain suggestions for future researches are identified. Next researches that are conducted in the field of consumer behavior in the Finnish cosmetic industry from a green perspective, can take into considerations target gender, cities, size of sample, and characteristics of the sample.

Regardless of nationalities and races, women are the greatest and strongest buying power in cosmetic consumption. In recognition of this, future researches can replicate the current study and focus on consuming behaviors of women only. By determining the target gender as female, the researches might provide deeper understanding into the segments. Profiles of the segments can so be vividly depicted, serving better the marketing strategy development of the green marketers.

Future researches can also replicate the current study with a different population, for example, consumers in other cities of Finland. The Nordic country has two official languages, Finnish and Swedish. The Swedish-speaking group is unevenly scattered across the country, especially densely inhabiting in the coastal cities. Overall, the Swedish-speaking Finns are supposedly different from the Finnish-speaking Finns, which can affect their consuming behaviors to some extent. Given that a remarkably large part of the population of Vaasa consists of consumers who have their first language as Swedish, the findings of the current study cannot represent the entire country due to the aforementioned inconsistency. Therefore, researches on other municipalities of Finland, where the Swedish-speaking population is insignificant, will surely contribute to penetrating insights into the consuming behavior of Finnish consumers as a whole country.

Another suggestion on future research lies in the heart of the sampling method. Next research can replicate the current study with a bigger sample on a larger geographical area of Vaasa. There are more than three places in Vaasa where consumers can come to buy cosmetic products, for example, supermarkets and other shopping department. Collecting data from more stores can help to increase the

size of the sample, as well as generate more exact results for the empirical research.

5.4 Reliability and Validity

The term reliability suggests trustworthiness. When used in connection with tests and measurements, reliability is based on the consistency and precision of the results of the measurement process. In other words, reliability is a quality of test scores that suggests they are sufficiently consistent and free from measurement error to be useful.

Internal consistency measures are statistical procedures designed to assess the extent of inconsistency across test items. To test the internal consistency of measures, a statistical test - Cronbach's alpha is used for intervally scaled data.

Reliability Statistics	
Cronbach's Alpha	N of Items
,851	16

Table 14 Reliability Statistics

The closer the Cronbach's Alpha is to 1,000, the better (Tavakol and Dennick 2011). As indicated in the Reliability Statistics table, Cronbach's Alpha is 0.851, which is a acceptably high number. This means, the internal consistency of the quantitative research is reliable.

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. There are various ways to earn validity evidence, with the source of evidence being test content, response processes, internal test structure, and relations to other variables. In the course of this thesis, content and structure of the questionnaire is built sticking to the literature review, using the previously used questions (HEP-NEP questions) to measure the sample. Moreover, the fact that the data set could generate three different clusters based on the selected criteria ensures that correlations among test components are positive. This strong evidence confirms the validity of the study.

5.5 Contributions of the research

Under this section the value added by this research to the green marketing and green consumer behavior literature body will be looked at. It emphasizes the most prominent points made in the thesis that particularly contribute to the understanding of the market of cosmetics in Finland.

This study reassured the weak connection between demographic characteristics and green purchasing behavior. People can act "green" and buy "green" regardless of their years of age and level of education. Only the variable of "monthly income" seems to be more related to the tendency to perform green purchasing behavior of the consumers.

The findings of the research have determined the size and the traits of the most promising market segment for green cosmetic products in Vaasa, Finland. This could be considered as the first step into segmenting the whole Finnish market, giving hints to the companies who are interested in this Nordic country that, this is how a part of the market looks like. If the potential looks bright enough in the view of the marketers, they can make further steps into segmenting the whole country as a market, or try out another bigger city, another size of sample.

The study suggests that clearer moves should be made by green marketing practitioners in order to keep the consumers aware of the important details regarding the green products. In other words, if they know very little about how a product cause much less harms to the environment than other products, chances are they never care to purchase the product. Good job done in promoting green products not only can encourage the Active Green segment to buy, but also make some Inactive Green consumers into Active Green, because their potential is awakened by clear information provided by the marketers and the media.

5.6 Summary of the study

The current study aimed at identifying the existing market segments in Vaasa, Finland for green cosmetic products. The objectives of the research are to explore purchasing intention that Finnish consumers demonstrate when shopping for cos-

metic products, to measure their environmental consciousness and to inspect their attitude towards pro-environmental products. Based on the review of literature on cosmetic industry and consumer behavior through a green filter, a quantitative research was conducted on the sample of 180 respondents, who shopped for cosmetic products in the center of Vaasa city. The empirical research generated primary data which provide profoundly helpful insights as to how the consumers in Vaasa can be classified in terms of psychological values on green consumption of cosmetic products.

The findings of the research suggest that there are three distinct segments in the market of cosmetics in Vaasa, Finland, namely The Indifferent, The Active Green, and The Inactive Green. The Indifferent segment is likely to be loath to consume green cosmetic products, even though the consumers in this segment might be slightly bothered by the serious condition of the environment. The most prominent potential to consume green cosmetic products can be observed from The Active Green. Not only is the segment strongly inclined to support pro-environmental products and companies that practice green marketing, it also seems to be acutely aware of the fragility of the world. The Inactive Green consumers are willing to spend on green cosmetic products and avoid products that bring detrimental effects to the environment. However, they show the least trust in green marketing messages from the marketers, neither are they motivated to seek for the truth. This segment is different from the Active Green in their global environmental concern; they believe that the harmony between humans and nature plays the critical role in consuming, while other issues such as supplies or climate change are underrated.

Beside psychological values, the discussion also gave a demographic touch to the data, looking at the correlation between each segment and its demographic characteristics. As expected in advance, and as the literature review suggested, most of the demographic variables and psychological values are negatively correlated. In detail, buying frequency, monthly income, and educational level of the segments are shaped in various patterns, proving the irrelevance of demographic variables in green market segmentation as suggested in previous studies around the world.

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1 GREEN CONSUMER BEHAVIOR SURVEY

Hello! I am Truong Ngoc Huyen, a fourth-year student doing International Business study program at Vaasa University of Applied Sciences. As a part of my thesis, this questionnaire is designed to find out the level of environmental consciousness of consumers and their intention in buying pro-environmental cosmetic products. I would be very grateful, if you could take part in the survey by answering the questions below.

General personal information.

1. Gender:

Female

Male

2. Age:

18 - 24

35 - 44

55 - 64

25 - 34

45 - 54

65 or over

3. Final level of education:

High school graduate

Bachelor's Degree

Doctoral Degree

Vocational Education

Master's Degree

4. Current work status:

Employed

Unemployed

Retired

5. Occupation:

Professional/Technical

Sales

Laborer

Manager/Executive/Administrator

Crafts/Repair

Service worker

Clerical

Machine Operator/ Inspector

Student

Other: _____

6. Monthly income:

1499€ or under

2500€ - 3999€

7000€ or more

1500€ - 2499€

4000€ - 6999€

7. How often do you buy cosmetic products, including skin care products and make-up products?

- Once a month or more often Once in three months Never
- Once in two months Once in six months
- Once a year

Intention in buying pro-environmental cosmetic products - How likely would you perform the following behaviors?

	Extremely unlikely	Unlikely	Neutral	Likely	Extremely likely
8. Use biodegradable soaps or detergents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Avoid buying aerosol products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Read labels to see if contents are environmentally safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Buy products in packages that can be re-filled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Buy products made or packaged in recycled materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Buy products that are certified meeting green standards (i.e. BDIH, Ecocert Green-life, Soil Association, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Avoid buying products from companies that do not practice green marketing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Attitude toward pro-environmental products. To which extent do you agree or disagree with the following statements?

	Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
15. I am willing to pay 15 - 30% more for a greener product.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I will not buy a pro-environmental product which does not work as effectively as a normal one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. I trust the marketing messages from green cosmetic marketers.

18. I search for information about a green cosmetic product before purchasing.

Global environmental concern. To which extent do you agree or disagree with the following statements?

Disagree strongly Disagree Neither agree nor disagree Agree Agree strongly

19. We are approaching the limit of the number of people the earth can support.

20. Humans must live in harmony with nature in order to survive.

21. It is not too late to save the environment.

22. Natural resources are scarce, thus must be used wisely.

23. I feel responsible for global warming.

Thank you very much for your participation. If you wish to be informed of the results of the survey, please feel free to leave your contact information below.

Name: _____

Email address: _____

2 VIHREÄN KULUTTAJAKÄYTTÄYTYMISEN KYSELY- LOMAKE

Hei! Olen Truong Ngoc Huyen, neljännen vuoden opiskelija international business –linjalla Vaasan Ammattikorkeakoulussa. Lopputyöni osana on kyselylomake, joka on suunniteltu löytämään tietoa kuluttajien ympäristötietoisuudesta, sekä heidän halustaan ostaa ympäristölle ystävällisiä kosmeettisia tuotteita. Olisin erittäin kiitollinen jos voisitte vastata alla oleviin kysymyksiin.

Yleiset henk. koht. tiedot.

1. Sukupuoli:

Nainen

Mies

2. Ikä:

18 - 24

35 - 44

55 - 64

25 - 34

45 - 54

65 tai enemmän

3. Koulutustaso:

Ylioppilas

Kandidaatintutkinto

Tohtorintutkinto

Ammatillinen koulutus

Maisterin tutkinto

4. Nykyinen työ tila:

Työssäkäyvä

Työtön

Eläkkeellä

5. Ammatti:

Ammatillinen/Tekninen

Myynti

Työmies

Käsityöt/Korjaus

Palvelu Työntekijä

Johtaja/ Ylläpitäjä

Koneenkäyttäjä/
Tarkastaja

Opiskelija

Papillinen

Muu: _____

6. Kuukausitulot:

1499€ tai alle

2500€ - 3999€

7000€ tai enemmän

1500€ - 2499€

4000€ - 6999€

7. Kuinka usein ostat kosteuttavia tuotteita, mukaanlukien ihonhoiatotuotteet ja meikit?

- Kerran kuukaudessa tai useammin
- Kerran kahdessa kuukaudessa
- Kerran kolmessa kuukaudessa
- Kerran kuudessa kuukaudessa
- Kerran vuodessa
- Ei ikinä

Halukkuus ostaa ympäristöystävällisiä kosmeettisia tuotteita - Kuinka todennäköisesti käyttäytyisit seuraavalla tavalla?

	Erittäinepä- todennäköis- ä	epätodenn- äköistä	Neutraali	todennä- köistä	Erittäin- todennäköistä
8. Käytän biohajoavaa saippuaa tai pesuainetta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Vältän aerosoli/ponnekaasutuotteita	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Luen etiketin varmistuksen ympäristöystävällisyyden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Ostan tuotteita pakkauksissa joita voi täyttää uudestaan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Ostan tuotteita joiden paketoinnissa on käytetty kierrätettyjä materiaaleja	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Ostan tuotteita jotka ovat todistetusti vihreän standardin omaavia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Vältän tuotteiden ostamista yrityksiltä, jotka eivät käytä vihreitä arvoja markkinoinnissaan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Yleiset kysymykset ympäristöön liittyvistä mielipiteistä. Miten suhtaudutte seuraavaan väittämään.?

	Vahvasti- ierimieltä	Erimieltä	Eiseltä lipidettä	Sa- maamieltä	Vahvasti- tisamaamieltä
15. Olen valmis maksamaan 15-30% enemmän vihreämmästä tuotteesta.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. En osta ympäristöystävällistä tuotetta, joka ei toimi yhtä tehokkaasti kuin normaali	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

tuote.

17. Luotan luontaisten kosmetiikka markkinoijien markkinointi viestintään.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Etsin tietoa luontaisesta kosmetiikkatuotteesta ennen ostopäätöstä.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Kansainvälinen huoli ympäristöstä. Mitten suhtaudutte seuraavaan väittämään.?

	Vahvast- ierimieltä	Erimielt ä	Eiselväämie lipidettä	Sa- maamieltä	Vahvas- tisamaamieltä
19. Lähestymme sitä rajaa, minkä jälkeen maapallon luonnonvarat eivät riitä elättämään kasvavaa ihmisten määrää.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 Ihmisten pitää elää harmoniassa luonnon kanssa selvitäkseen tulevaisuudessa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Ei ole liian myöhäistä pelastaa ympäristöä.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Luonnonvaroja on vähän, joten niitä tulisi käyttää viisaasti.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Tunnen olevani vastuussa ilmaston lämpenemisestä	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Kiitos paljon osallistumisestasi. Jos haluat saada tietoja kyselyn tuloksista, voit jättää yhteystietosi alle.

Nimi: _____

Email osoite: _____