



SUSTAINABILITY AND DEVELOPMENT OF GREEN CONSUMER ELECTRONIC PRODUCTS

The insights of distributors and re-sellers

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Abstract <p>The commissioner of the study is an importer of consumer electronics products operating in Finland. During the past years, Company X has noticed the rise of the trend of environmental friendliness among consumer electronics products, in Finland, as well, as abroad. The desire of the company was to receive information regarding the sustainability and development aspects of green consumer electronics products based on the insights of four of the company's current or former business associates, operating as distributors and re-sellers.</p> <p>The study adopted the qualitative approach and chose to use a semi-structured, face-to-face interview method. There common perception of the four participants taking part in the research was that, especially during the past year, green products started to surface notably in the consumer electronics industry and additionally consumers have demonstrated a certain amount of increased interest towards green electronics products. The results stipulated that, apparently the branding choices of manufacturers have a meaningful affect on what is perceived to be the availability of green products. According to the impression of the respondents, consumers may have the desire to purchase green products but it does not translate to the actual purchase behaviour of the consumers. Based on this, the respondents felt that there are obstacles between the desire and purchase behaviour of consumers, as for example the higher price of certain green consumer electronics products, which was perceived to be one of the obstacles. Overall, the respondents saw the future prospects of green products to be promising, as the shared impression and opinion was that the environmental values are just starting to get a better threshold in the industry of consumer electronics. However, the respondents emphasized that, in order to raise the demand level of green electronics, the products should be made as available as possible, to consumers by for example, providing them product related information through various promotional means.</p>		
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Tiivistelmä <p>Tutkimuksen toimeksiantaja toimii kulutuselektroniikkatuotteiden maahantuojana Suomessa. Yritys X on kuluneiden vuosien aikana huomannut ympäristöystävällisen trendin nousun kulutuselektroniikkatuotteiden piirissä, sekä Suomen markkinoilla, että ulkomailla. Yrityksen halu oli vastaanottaa tietoa vihreiden kulutuselektroniikkatuotteiden kannattavuudesta ja kehitysnäkymistä joka perustuisi yrityksen nykyisten tai menneiden yhteistyökumppaneiden näkemyksiin, jotka työskentelevät jakelijoina ja jälleenmyyjinä elektroniikkatuotteiden parissa.</p> <p>Tutkimuksessa käytettiin laadullista tutkimusotetta ja metodina oli puolistrukturoitu haastattelumenetelmä. Tutkimukseen osaan ottaneiden, neljän haastateltavan yleisen mielikuvan mukaan vihreät kulutuselektroniikkatuotteet ovat nousseet esiin markkinoilla, etenkin kuluneen vuoden aikana, ja myös kuluttajat ovat näyttäneet jonkin asteista lisääntyntä kiinnostusta tuotteita kohtaan. Tuloksien perusteella vaikuttaa sille että valmistajien brandi-päätöksillä on merkityksellinen vaikutus siihen, millaiseksi vihreiden tuotteiden saatavuus koetaan. Vastaajien mielikuvan mukaan kuluttajilla saattaa olla halu ostaa vihreitä tuotteita, mutta varsinaisessa ostokäyttäytymisessä kyseinen halu ei suurimmassa osassa tapauksia ole ilmennyt. Tämän vuoksi vastaajat kokivatkin, että kuluttajien halun ja ostokäyttäytymisen välissä näyttää olevan esteitä. Joidenkin vihreiden tuotteiden korkeammat hinnat, koettiin yhdeksi esteeksi. Kaikesta huolimatta vastaajat näkevät vihreiden elektroniikkatuotteiden tulevaisuuden näkymät hyvinä, koska heidän yleinen mielipiteensä mukaan ympäristöarvot ovat vasta saamassa parempaa jalansijaa elektroniikkatuotteiden markkinoilla. Vastaajat kuitenkin pyrkivät korostamaan tiedottamisen merkitystä vihreiden kulutuselektroniikkatuotteiden menekin lisäämisessä. Vihreiden tuotteiden saatavuus tulisi tehdä kuluttajille mahdollisimman helpoksi, esimerkiksi tiedottomalla eri kanavia pitkin tuotteita koskevaa informaatiota.</p>		
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1 CHANGE IN THE OPERATIONAL ENVIRONMENT OF COMPANIES

Companies operating in the business world of today are facing new challenges due to the current state of the world. The environmental crisis is one of the topics currently at the burning point of discussion, affecting everything and everyone, and the world of business is no exception. In fact, Linnanen, Boström and Miettinen (1994), see that the environmental challenges are creating a change in the operational environment of companies that might pose the greatest challenge organizations have ever encountered because there is no choice to be made, companies must adapt to the new circumstances put forth by the environment (Linnanen, Boström & Miettinen 1994, 15).

The scholars in question clarify that among the factors affecting the environmental distress are basic human activities such as production of nutrition, industrial activities, habitation, social functions and traffic that undoubtedly change the environment (Linnanen & al. 1994, 46-49.) For a long time, people have been aware that these basic human functions cause distress to the environment. However, in the past the environment did not demonstrate signs of its deteriorating condition at the same level of force it is exhibiting now and is predicted to exhibit in the future, if we do not change our way of living towards a more sustainable behaviour. With the assistance of the fast paste flow of information, the grueling future prospects appear to have launched a change in the attitudes of consumers and the society, as it seems that consumers and decision-makers are becoming increasingly interested in actions preserving the environment. Consequently, the Council of the European Commission established in its 2003 report that, promoting sustainable development is one central focus of the Council of the European Union (2003a, 2).

According to Nissinen (2004), the sustainable development approach aims to improve the environmental situation by influencing social, economical and ecological levels of society, appropriate, as the environmental problems are mainly resulting from the actions and consequences of these three pillars (Nissinen 2004, 9-10). Companies operating in the business world of today, as well as, consumers need to promote the goals of sustainable

development in order for a more sustainable tomorrow. This means sustainable consumption and production. In terms of the business world, promoting sustainability means implementing environmental protection into their strategy and operations, as well as, adopting the ideology of eco efficiency. Rissa (2001) establishes that, the goal behind the ideology of eco efficiency is to develop production patterns into a less environmentally burdening direction and producing environmentally friendly products (Rissa 2004, 10.) These goals involve the need for technological innovations, the usage of clean technology and bring forward the concept of green products (see for example, Linnanen, Markkanen & Ilmola 1997a, 111).

In addition technological innovations, there is also need for social innovations. According to Nissinen (2004), there are multiple compelling reasons for consumers change their consuming habits in order to pursue of a more sustainable tomorrow. One of these reasons is that, the globe will demonstrate to be too small for us in the future, if the goals of sustainable development are not promoted in terms of decreasing the environmental strain amounting from products and services and the consumption of them. Therefore, consumers have an important role in product- centric environmental protection, as demand is the most important guide directing manufacturing (Nissinen 2004, 3.)

Fortunately, it seems that people are becoming progressively more interested and knowledgeable over the environmental situation due to the extensive flow of information, a characteristic to the knowledge society model we are currently living in. (See for example, Mikkonen 2003). The cold reality of the situation appears to be creeping inside the consciousness of people. In fact, various scholars such as, Linnanen et al. (1994), state that people are becoming increasingly interested in actions preserving the environment. They establish that consumers appear to be genuinely concerned over the environment and an increasing number desire to exhibit this felt worry directly through their purchase behavior. (Linnanen & al. 1994, 58.) Moreover, Pohjola (2003) predicts that the amount of environmentally conscious consumers is increasing (Pohjola 2003, 33).

Vos and Schoemaker (1999) state that, there is an increased competition over the attention of consumers between product manufacturers and creators, resulting from multiple product options available in the market place (Vos & Schoemaker 1999,17).

In the tough business industry of today, success is not ensured, solely, by producing a product that meets a certain need. The future product with success potential, has multiple layers in it that offer superior value, at least, in its functionality, competitiveness and appearance, while taking into account the needs, desires and wants of various interest group partner of companies such as, the consumers. Linnanen, Markkanen & Ilmola (1997a) see that, nowadays more often than not, the environment and quality have more uniting factors than separating ones, as they both are positively charged concepts characterized by zero tolerance towards inconsistencies and holistic way of approaching issues. The complicated nature of ensuring superior value and quality among products, minimizing costs and the increasing competition, demand for planned quality improvements. There are numerous stages involved in the process of ensuring quality, starting from the production process. However, technology does not ensure the overall quality of products, the consumers are also needed in the process. Taking into consideration the desires of the final user, enables the producing company to receive important information that allow it to produce tangibles that meet the needs, wants and desires of the consumers (Linnanen, Markkanen & Ilmola 1997a, 80-83.)

These above clarified realization are the reasons why scholars such as, Vos and Schoemaker (1999) state that it is no longer the seller who dominates the market, but the buyer, because companies success depends on the desires of the consumers. Sellers of products have to take the wishes of the consumer into account (Vos & Schoemaker 1999,17.) Linnanen et, al. have resulted in similar conclusions as they see that, it is crucial for a company operating in the business world of today, to interpret signals reflected from the market place and to practice effective communication activities with its various interest groups in order to remain successful (Linnanen & al.1994, 37-38).

Linnanen et al. (1997a) state that currently environmental protection is an increasingly emphasized concept in the market place, which can be especially noted as the awareness of consumers regarding the environmental situation has grown, there is an increased eco-labelling of products and an intensified growth of the environmental sector in general. The environmental technology and services market was estimated at 210 milliards of dollars in the year 1992 and it is assumed to grow up to 570 milliard dollars until the year 2010. (Linnanen & al. 1997a, 42, 54.) Therefore, it might not be a surprise that, Linnanen

et al. (1994) are suggesting the occurring challenges should not only be seen as a threat, as the situation also provides an opportunity that the most innovative companies will turn into competitive advantage (Linnanen & al. 1994, 15-16).

The commissioner of the research in question wishes to stay anonymous and is therefore, referred to as Company X or the commissioner. Company X is operating in the field of consumer electronics in the Finnish market place. More precisely, the company imports consumer electronic devices into the country and further sells them to distributors and resellers, whom further distribute the products to various outlets and magazines from where the products finally reach consumers. Company X has marked the growing business of consumer electronic products that promote sustainability in Finland as well as internationally.

Currently, the company is interested in finding out what is the present situation of the green products in the Finnish market place or in other words, what type of signals are reflected from the market place regarding these types of products. This is seen as an important business activity, as it was established before, consumers stipulate the rules of the game in the market place of today and according to scholars such as, Hawkins (2006), it is necessary for companies to understand customer wants in order to develop markets or introduce new products. Mapping social trends is the key to understanding future needs and desires and provides the opportunity to build up alternative approaches. In the end, the environmental, economical and social pressures within all markets will define the effects on overall corporate strategy (Hawkins 2006, 153.) In other words, the signals reflected from the market place help a company, such as Company X, to understand consumer wants and needs in order to predict future trends better. Furthermore, the information from the market place acts as a foundation for all functional activities of a company such as, strategic planning and marketing activities. In the case of Company X, the market signals give indications of the current and possibly also the future prospects of green electronics that help the company to make decisions in terms of, which product types have market potential, affecting the company's importation decisions.

As the environmental situation has made its way to the burning point of discussion and the environmental business has grown intensively during recent years, it is no surprise

that, companies such as Company X, as well as, various researchers have taken an interest concerning the topic and the environmental aspects of business life. Majority of the discovered previously conducted research material are consumer level studies that concentrate on the nature and supply of information regarding the environmental situation and how consumers appear to be receiving information concerning the green features of products.

For example, Heiskanen and Timonen (1996) investigated consumer's environmental knowledge and its links to environmental attitudes and behavior. The data consisted of a representative sample number of 1614 Finnish consumers that were interviewed. The research results showed that majority of the respondents were concerned or extremely concerned about the world wide environmental problems and living prospects of future generations. Many respondents experienced problems in choosing the environmentally sound product alternative among the number of products available. Lack of product information was the most frequently mentioned obstacle in the way of selecting the ecologically safer product alternative. Nonetheless, the study discovered that there is potential in improving the effectiveness of environmental communication and informative instruments in environmental policy through for example, segmentation, linking information to everyday activities, developing more usable environmentally related systems (energy use, recycling) and utilizing existing social networks for environmental communication (Heiskanen & Timonen 1996, 45-52.)

The purpose of the study conducted by Niva and Heiskanen (1996), was to establish the terms in which consumers utilize environmental information of products, eco-labeling and the claims of the manufacturers, in their decision making process. The study was based on literature, the results of previously conducted researches and it also involved the interviews of 31 respondents. Detergents and batteries were selected to act as example products during the study because the impression of the respondents was that the environmental strain caused by these particular products had been a discussed topic in general and that the products were familiar to the respondents.

The results concluded that, consumers are interested in environmental information, as well as, in other product related information but apparently, consumers feel that it is

difficult to understand the available environmental information and therefore, many matters remain unclear to them. Moreover, the results demonstrate that consumers feel there is not a sufficient amount of environmental information available in the market place. As a result, consumers consider it hard to make choices supporting the environment based on poor information, without wondering whether the information provided is reliable. Furthermore, mistrust on information provided by product manufacturers was considered high among the respondents and the northern eco-label does not seem to ensure those consumers that do not know the official nature of the label. The research established that, apparently at a certain purchase event, consumers do not have the time or want to familiarize themselves with product information available and thus, they used a small amount of time in making purchase choices. In fact, according to the results, consumers are demanding information that is clear, understandable and easy to read, which would enable them to make environmentally conscious choices.

However, the results argued that even though consumers would have positive attitudes and interest in environmental information, when it would come down to making a purchase decision environmental factors rarely came to the surface. What is more, the most important factors affecting the purchase decisions of consumers were the price and quality of a product (Niva & Heiskanen 1996, 1-2, 48-52.)

The research conducted by Moisander for Statistics of Finland (1996) tested the accuracy of other previously conducted studies regarding the affects of certain attitudes, moral and social factors, as motivators of environmental-friendly behavior in consumers. The study was based on a specific theoretical framework and additionally inquiries were conducted with the assistance of computers that acted as the empirical source of data for the research.

The research concluded that the relationship between consumers' general pro-environmental attitudes and their behaviour seems to be far from simple because apparently consumers have numerous conceptions of what constitutes an ecologically responsible consumption style and because consumers do not buy products and services for their environmental consequences only. Nevertheless, the findings of the study clearly indicated that consumers' pro-environmental attitudes were certainly relevant in the

context of ecologically responsible consumer behavior. It appeared that the more consumers perceive themselves as ecologically minded, the more they would engage in ecologically responsible behaviors on average. Based on their findings, the researchers in question stated that, surprisingly many decision-makers, both marketing practitioners and policy-makers, fail to understand that green consumers do not have solely environmental protection related motives for their consumption decisions. According to the findings, the marketing of green products should be based on a profound understanding that the total benefit a consumer gets from an environmentally friendly product is a sum of two components, which are according to the study, the individual benefit and the social benefit. Furthermore, green products should be made easily available to consumers and they should be designed to offer significant and understandable environmental benefits, linked to consumers personal value system, as well as, to offer sufficient brand value, compared to the often considerably more inexpensive non-green product alternatives (Moisander 1996, 113-129.)

The above-mentioned studies involve consumers, their knowledge level concerning the environment, as well as, attitudes and purchase behaviour regarding green product features. These studies in question, do not specifically concern the consumer electronics industry, which gives one reason to conduct the research at hand. Furthermore, it is true that, the previously conducted researches provide information on green products, however, it is important to Company X to discover information that specifically focuses on the consumer electronics industry. In order to get a holistic picture of the market situation of green consumer electronic products inside the industry of consumer electronics, it is considered important to the commissioner of the research in question, to discover the opinions and experiences of various other interest group partners involved in the value chain of consumer electronics industry.

As previously established, it is crucial for a company operating in the business world of today to practice effective communication activities with its various interest groups as it is the purpose of Company X by the assistance of the study at hand. The topic is perceived to be a relevant and timely subject, as the environmental situation is an intensively discussed issue. Furthermore, as the environmental industry in general is

predicted to grow even more in the future, there is the need for researches as the one in question in order to acquire information that could possibly further develop the industry.

Overall, the interviewees of this research consist of four distributors and re-sellers, operating in the field of consumer electronics in Finland. The selected respondents are all current or former business associates of Company X. The commissioner specifically wants to discover information based on the perceptions of the respondents, as their opinions affect the business operations of Company X. The desire of the company is to find out, what sustainability and development prospects of consumer electronic products branded as environmentally friendly, or as otherwise known as “green products”.

In other words, the central idea behind this research is to clarify what kind of primary experiences distributors and resellers have acquired regarding green electronic products. According to Company X, green products have been appearing in the Finnish market place for an appropriate amount of time thus, giving the interviewees in question the opportunity to have obtained first hand knowledge concerning green consumer electronics and how these products are being received by the consumers in the market place.

2 THE CONCEPT OF SUSTAINABLE DEVELOPMENT AND ITS POSITION IN THE WORLD OF BUSINESS

The theoretical framework consists of two separately presented parts. The first part attempts to clarify certain key concepts that are entwined with the concept of sustainable and involved in the midst of the research. The second part of the theoretical framework concentrates on clarifying what makes effective communication. In order for companies to attain information regarding the desires of consumers, they need to communicate with their various interest group associates and discover market signals. This brings forwards the need to understand what is effective communication. Enclosed as Appendix 1, is a mind map that describes the theoretical framework and attempt to clarify the relationship between the various concepts discussed in the following parts.

In order to understand the importance of preserving the environment and moreover, how promoting the ideology of sustainable development is increasingly important in general and in the business world, there is the need to take a closer look at certain factors causing environmental distress.

2.1 Factors amounting to the current state of the world and the Integrated Product Policy

Rissa (2001) establishes that in the background of global environmental challenges and problems is the increased consumption of the society, as a man utilizes vast amounts of natural resources that create the foundation for ones economy (Rissa 2001, 70). In fact scholars such as, Linnanen et al. (1997a) write that, according to estimates we would need four globes to support the amount of consumption today for the approximated 8-milliard people habituating the world when it comes the year 2025 (Linnanen & al. 1997a, 42). In Finland alone, the overall consumption of natural resources has grown 50 percent since the year 1970. Estimations show that approximately 65-70 millions of tons of waste creates every year in Finland and 95 percent of that amount causes during production or in other words, industrial activities and agriculture (Estimates according to Thule

institution as quoted by Rissa 2001, 73.) For a long time, there has been the knowledge that the globe cannot support such high levels of waste, pollution and consummation amounts. However, possibly due to the recent natural disasters, promoting the concept of sustainable development in various levels appears to be an increasingly emphasized concept.

Consequently, the Council of the European Union (2003b) states in its report concerning the Integrated Product Policy (IPP) that, there is an essential need for economic systems to take into account the limits of the earth and decrease the amount of pollution and usage of natural resources. According to Council, the central challenge of the future is to secure both environmental protection and economic and social development, all strongly influenced by products' production and consumption. In fact, the IPP of the Council aims to provide new solutions and possibilities in achieving sustainable development in the world of business and it has a central role in promoting sustainable consumption and production, concepts that are further discussed in parts 2.3, and 2.4. This involves promoting the diffusion of greener products and cleaner technologies (Integrated Product Policy 2003b, 2-5.)

2.2 Sustainable development

Hawkins (2006) establishes that, sustainable originally meant capable of being borne or endured, but during recent times, it became capable of being upheld or defended. Environmentalists clearly drive towards the former view, in business world, the emphasis tends to be towards the latter and government staggers between the two (Hawkins 2006, 1). It is rather hard to bring the multi layer concept of sustainable development to a concrete level of understanding. However, when attempting to simplify the meaning behind the concept it translates to the process of stabilizing the amount of individual consumption at a sufficiently low global level so that, the individual needs of people can be met in the present, as well as, in the future with generations to come (Nissinen 2004, 9). According to Linnanen and Markkanen (1997b), when it comes to sustainability in terms of a company, it means the capacity to continue operating in the long term. More precisely, the ideology and challenge of sustainable development means the purpose of

bringing environmental protection together with competitive ability in terms of eco-efficiency, in the field of business (Linnanen & Markkanen 1997b, 2.)

2.3 Production dimension of eco-efficiency and the definition of a green product

Rissa (2001) sees that in the current world status the concept of eco efficiency has not yet reached consensus. Some offer a more broad definition for the concept where the idea of eco efficiency becomes close to the concept of sustainable development. Others see eco efficiency from a more narrow perspective, where the concept is mostly a technical mean for decreasing the amount of material flows. The concept of eco efficiency is more involved with the economical and ecological aspects of sustainable development rather than the social side, which brings about the differences between the two concepts. Nonetheless, the concept still entwines with the ideology of sustainable development, whether one sees eco efficiency from a broad or narrow viewpoint, since attaining the goals of sustainable development requires that companies adopt eco efficiency to enhance production processes. In fact, essentially eco efficiency has two dimensions, production and consumption. The production aspect involves companies and in practical terms is means the process of enhancing production of tangibles by reducing the usage of natural resources and energy, as well as, strategically enhancing the material utilization within the various stages of production (Rissa 2001, 10-13, 44-45, 70-73.)

Furthermore, Linnanen et al. (1997a) clarify that eco efficiency brings environmental expertise into production by promoting the utilisation of clean technology. From a narrow perspective, clean technology refers to the use of techniques and actions used to enhance the use of raw material, minimise the consumption of energy and decrease the amount of waste created during production (Linnanen & al. 1997a, 111-112.) Actually, the use of clean technology during production is what merits a certain consumer electronics product the label green, or a product in itself represents a form of cleaner technology by causing less environmental strain as it functions.

It appears that the process of determining what product deserves to bear the label green is an evolving one, as standards and thresholds continue to develop over time. However, an

official, widely accepted standard defining the characteristics of an ecological product was not discovered. This is the reason the research uses the definition of the Ministry of Environment for ecological products. According to it, an ecological product is one, which causes less environmental strain or burden than majority of other products designed for the same purpose of use available in the market place. The environmental impacts of the products are examined throughout the life cycle of the products hence, from the raw material acquisition to production until the use and final stages of the product. In terms of the environmental impacts, the use of natural resources, ecological consequences and influence on health of humans, are taken into consideration (see further Ministry of the Environment 1993, SFS 1997; Nissinen 2004, 7.) During the various phases of the research, the use of terms such as, green products, environmentally friendly products and environmentally conscious tangibles, all refer to the above definition of an ecological product.

2.4 Consumption dimension of eco-efficiency and the path towards creating superior value

Along side with technological innovations, it is also crucial for consumers to change their buying behaviour towards a more sustainable direction, as consumption drives the production of tangibles and is one of the factors causing environmental distress through the massive consummation of material, a characteristic of the current society. Therefore, the change must also happen in the minds of consumers in order to promote sustainability. In addition, the demands of consumers can direct companies to produce tangibles in an eco efficient manner and products supporting green values and thus, support the production dimension of eco efficiency (Rissa 2001, 5, 10-11.)

However, in order to start the process of change and to provide products that best support the needs and wants of consumers, as well as, the environment, companies need to interpret signals reflected from the market place, as established in chapter 1 (see for example, Linnanen & al. 1994, 37-38; Vos & Schoemaker 1999,17; Hawkins 2006, 153). Based on the information received companies have relevant market knowledge that

assists them in the practice of developing and offering products with superior value. This brings us to take a closer look at the next part of the theoretical framework, effective communications.

3 COMMUNICATION — A VESSEL FOR BUILDING THE AREA OF COMMON PERCEPTION BETWEEN INTEREST GROUPS

A single company operating in a certain field of business is only one component in the value creation process, which overall purpose is to deliver a product to a consumer. This means that, the co-operation between value chain parties and interest groups is in need in the process of creating and sustaining superior value (see for example Linnanen & al. 1997a, 68-69; Pohjola 2003, 25-26, 69.) Pohjola (2003) establishes that, in the 21century business world, companies have a growing number of interest group partners forming loose business conjunctions. These various interest groups are represented for example by: subcontractors, raw material suppliers, financiers, buyers, distributors, re-sellers, media, the employees of a company and of course the customers and owners of a certain company. The common factor among these groups is that they all have expectations and demands towards a company and its operations. The purpose of these conjunctions is to allow companies to focus on their core business activities in order to produce products offering superior value in order to beat competition and to fulfill the desires of consumers (Pohjola 2003, 12-13.)

Consequently, the vast amount of partners creates challenges in the transfer of information. Practicing effective communication between the various interest groups becomes important to ensure the transfer of information and the appropriate interpretation of market signals. Moreover, it is common knowledge that companies need to collaborate with its interest group partners in order to build the area of common perception in the industry and to further remain successful. Communication between various interest groups is increasingly important for many companies to ensure the flow of information among the operators. In fact, communication has developed into a discipline strongly involved in the process of strategic planning (Vos & Schoemaker 1999, 13, 17-18.) These notions call for the need to shed light on, what is communication in theory, what makes effective communications and how practicing effective communication helps to implement goals of a company formulated in organizational strategy.

3.1 Act of communication

“Of all affairs, communication is the most wonderful” (Dewey, 1925).

John Dewey *Experience and Nature* (1939).

According to Vuokko (2002), communication takes place everywhere, all the time, consciously or unconsciously. Through the act of communication, we perceive the world, make decisions and conclusions. Many might not realize, but companies and organizations communicate constantly even without clearly planning for it to occur. Merely the name of a company, visual characteristics, products, services and prices communicate to the consumers a certain message. Consumers use the information they receive, concerning products and services, to make purchase choices. In order for companies to control the information it desires to send to the market place and to control the image that is created into the minds of consumers regarding its products and the company itself, the marketing communication activities of the organization need to be carefully designed and planned (Vuokko 2002, 10-12.) The below Figure 1, describes the layout of the currently prevailing communicational process model, intended to clarify what occurs during an act of communication:

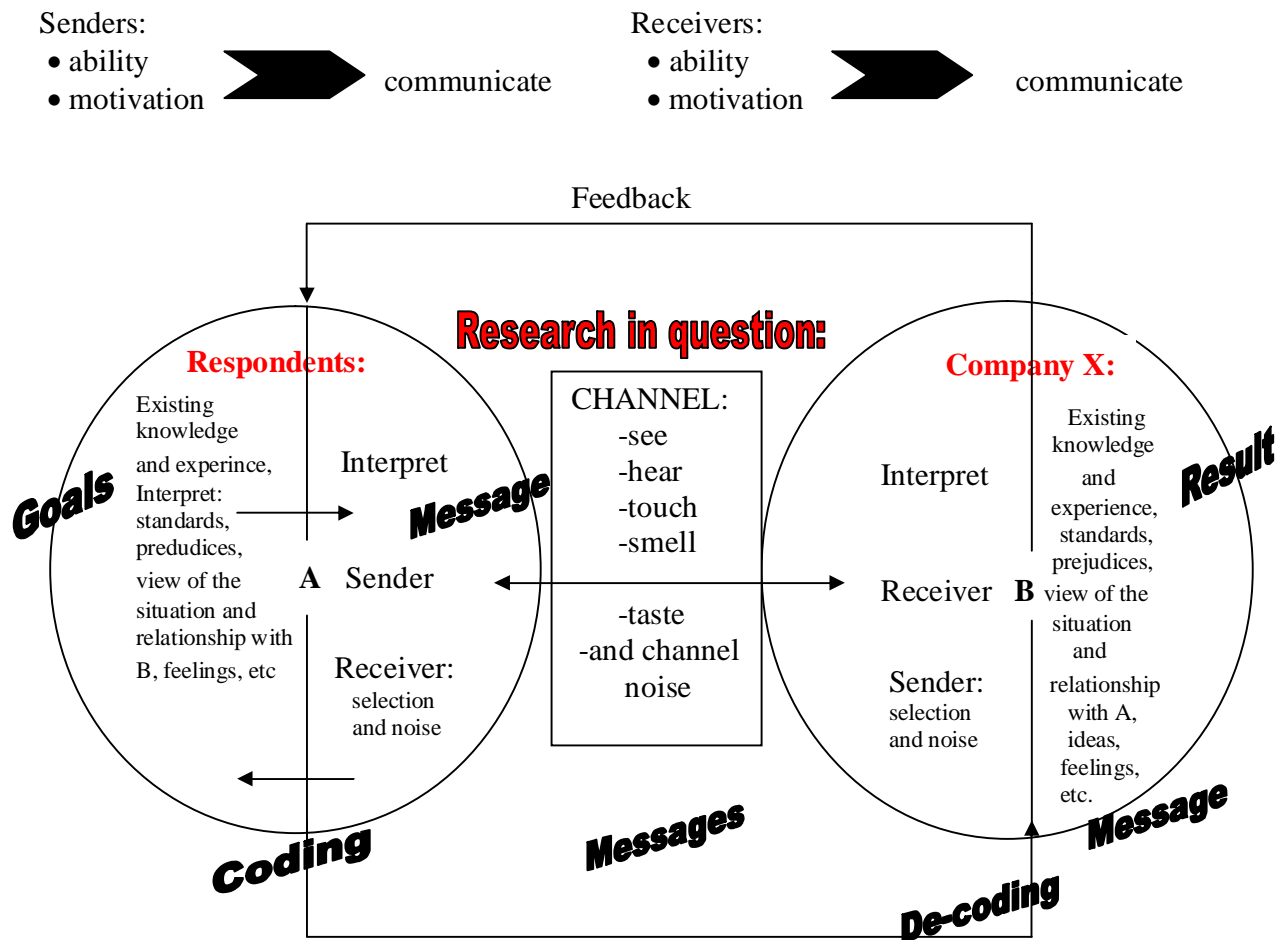


FIGURE 1. A model of the communication process (adapted from Vos & Schoemaker 1999, 25; Vuokko 2002, 28)

Vos and Schoemaker (1999) explain how the concept of communication has developed through times, as formerly communication was considered as one-way traffic, a linear movement from sender to receiver. Nowadays the mutual participation of the communication process is emphasized, where the roles of the sender and receiver change, as both parties can send and receive multiple messages at the same time with each other and with a third party (Vos & Schoemaker 1999, 24-26.) In other words, communication is a contact one person makes with his social environment, where a sender conveys a

message to a receiver, to which the latter reacts and during which, the role of the sender and receiver switches (see Figure 1. above).

One of the aims of the study is to assist Company X to communicate with the selected respondents, whom represent the interest group of distributors and re-sellers associating with the commissioner. In a way, the intent of the research is to act as a channel between Company X and the respondents, in the communication process (see Figure 1. above). The respondents send a message through the research acting as a channel, which further interprets the message and forwards it to the receiving end of the message, Company X. The message or the results provide information to Company X, which possibly influence the business actions of the company. The next part intends to clarify how communication, marketing and marketing communication support each other in the operational field of a company, such as Company X, and help achieve the overall business strategy of a company.

3.2 The position of communication in organizational strategy

The increased need for companies to collaborate and communicate with its interest groups has made communicational activities an important functional area within an organization. In fact, communication, marketing and marketing communications link together and support each other in the operational field of a company in order to help achieve the overall business strategy (see Figure 2. below).

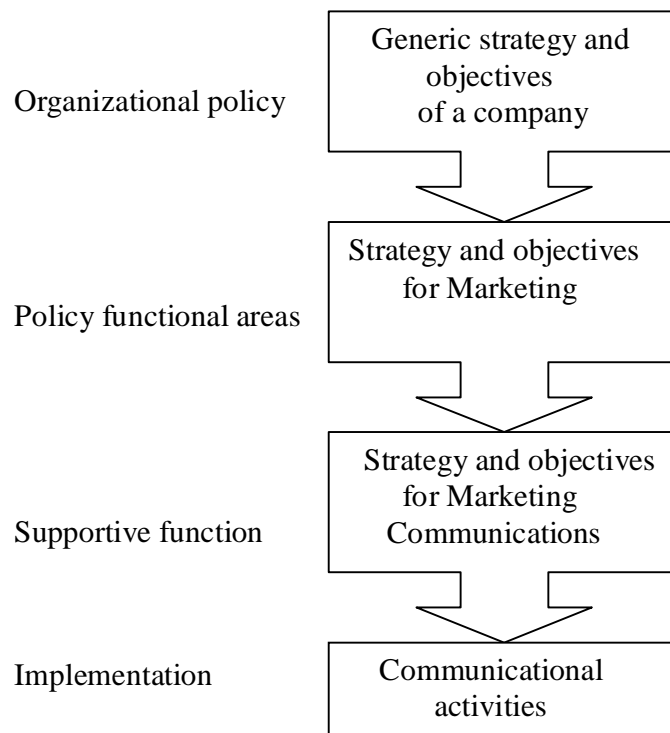


FIGURE 2. The relationship of communication in overall organizational planning (adapted from Vos & Schoemaker 1999, 116; Vuokko 2002, 132)

Nowadays, the general communication goals are linked directly to the general organization policy and communication activities can help support other functional areas as an important instrument, such as finance, human resources and of course, marketing. All of the activities described in the above Figure 2., should be in harmonization with one another meaning that, marketing communications activities should found upon the general marketing plan of an organization, which should further base upon the overall organizational strategy. If a company manages to link its business functions together in the described manner, it helps the company to achieve the set goals as best as possible. Furthermore, integrated marketing communication stands for the internal consistency of the different communication activities to reach the established goals. Integrated marketing communication starts from the notion that one has to take into consideration the receiver by transferring a consistent and unambiguous image. Moreover, in marketing

communication companies should think outside-in starting with individual consumers and adapting their needs (Vos & Schoemaker 1999, 115-118.)

To sum up, it appears that, in order for a company to have a better chance at achieving the goals set out in their strategy, it is important to first discover information on the underlying market situation of the specific industry the company operates in. Collecting information on the market situation of a certain field, such as in this case consumer electronics, delivers important knowledge that can help a company see where the markets are developing towards and to predict what type of products consumers are interested in. In the case of Company X, the study attempts to discover information that could assist the company to make efficient decisions regarding the importation of green consumer electronic products, up-date its strategic goals and to remain a player in the game. The next chapter aims to provide a more detailed description of the purpose of the research in question.

4 RESEARCH DESIGN

4.1 The starting point of the study and the research problems

The commissioner of the study, Company X, operates in the field of consumer electronics and it imports various devices into Finland and sells them further. The purpose, the motivation and the essential starting point of the research primarily originate from the needs of Company X. The commissioner hopes to receive information on the current market situation, sustainability and development aspects regarding green consumer electronic products in Finland. Furthermore, the Company wants to attain information on the current demand level of green products, as well as, the future prospects of the devices, in order to make decisions whether there could be collectable profits in importing these types of tangibles into Finland. Based on the commissioner's professional knowledge, green electronic products have been appearing in the Finnish market place the amount of time that is perceived by the commissioner to be sufficient in order for, the respondents to have had the opportunity to make observations and remarks of the reactions of consumers, as well as, other value chain operators, towards the tangibles.

The above described needs of the commissioner are further based on the realizations, established in the preceding parts, that it is crucial for a company operating in the business world of today, to communicate with its various interest groups and to interpret signals reflected from the market place. Co-operation with interest groups and listening to the market place assist companies to predict the future direction of the markets, to develop their business operations and to maintain their competitive ability (Boström, Linnanen & Miettinen 1994, 37-38). Therefore, in order to see what direction the markets are developing towards, Company X should follow the indications of its interest group partners, which is what the company desires to do with the assistance of the research.

Based on these above discussed facts, the research divides into two parts. The first part focuses on discovering whether there are certain common underlying characteristics perceived by the respondents that would help describe the current market situation of

green electronic products. The second part focuses on the future prospects and development aspects of green products. More specifically, whether the interviewees have certain ideas based on the professional experience on improving the market position, demand or information supply of green products. The two main research objectives are presented below and further clarified by supportive questions:

1. What do the distributors and re-sellers perceive to be the underlying characteristics describing the current market situation of green consumer electronic products?

1.1. How do they describe the current demand level of green consumer electronic products in their market environment?

1.2. What do they perceive as the most appealing product features and factors affecting the purchase decisions of consumers regarding green consumer electronics?

1.3. What type of observations they have regarding the availability of green consumer electronic products?

2. What type of ideas are perceived to be important based on the experience and observations of the distributors and re-sellers in their operational environment, in order to, develop the green consumer electronics product category and how do they see the future prospect of green electronic products?

2.1. What are the perceptions of the respondents concerning the nature and amount of information available, regarding promotional material of green consumer electronics.

2.2. What actions are considered and described as important and where in the value chain should information be guided to, in order to develop the green consumer electronics category?

Discovering essential information according to the hopes of Company X is the priority of the study. In addition, the results could benefit other interest groups, as for example, the

selected interviewees represented by distributors and re-sellers. The study could act as a launch pad for other, similar types of researches that could for example, concentrate on a different operator or an interest group in the field of the electronics and aim to discover their experiences and opinions on the subject. As the results of the research base upon the personal experiences, subjective observations and thoughts of the selected interviewees, the study therefore recognizes that the results cannot be used to make generalizations concerning the industry.

4.2 The research approach, orientation and method

The two ways of conducting a research are the qualitative and quantitative approaches. According to the simplistic definition of Daymon and Holloway (2002), the qualitative approach is commonly associated with an interpretative worldview, involving analysis of words, where as, the quantitative one is associated with a realist worldview, generally involving numbers. The worldview that is adopted, determines the nature of the research question and influences the type of investigative methods selected (Daymon & Holloway 2002, 3-9.) Hirsjärvi and Hurme (2000), further establish that the qualitative approach aims at bringing to the surface the giving voice of the respondents and taking into account the personal experiences, observations and opinions of the respondents, while the quantitative approach is used to create statistical generalisations and to collect numerical data concerning a particular phenomenon (Hirjärvi & Hurme 2000, 27). The research at hand, considers the qualitative approach as the best choice, because the goal is to discover the meaning behind words and perceptions, rather than analyzing numbers. Furthermore, as the aim of the study is to provide Company X with information concerning green consumer electronics, by interpreting the experiences, thoughts and perceptions of the respondents, the interpretive worldview seemed most appropriate.

Hirsjärvi, Remes and Sajavaara (1997), clarify that the nature of the qualitative approach is a holistic information gathering process that occurs in natural, real-life situations and people are favoured as the means for gathering data (Hirsjärvi, Remes & Sajavaara 1997, 155). This further supports the selection of the qualitative approach, as the selection of the respondents is specific in order to represent a certain interest group associated with

Company X and the interviews plan to occur in the particular operational environment of each of the respondents. The research considers the past notions and experiences of the distributors and re-sellers as a valuable asset for the study, because their observations can bring forward important insights of their operational environment representing a section of the consumer electronics industry in Finland. Actually, the purpose is not to hide or deny the existence of subjectivity during this research, but rather to benefit from the subjective experiences and opinions of the respondents and interpret and describe their notions in an objective manner that would clarify the research problems.

After the selection of the appropriate research approach, there comes the need to choose a specific orientation that further guides the research process and selection of a research method. In terms of the orientation, phenomenology seemed as the most applicable option, because it concerns the experiences of people in a particular phenomenon. (Daymon & Holloway 2002, 14, 146-153.)

The phenomenon under investigation during the study at hand is the concept of green consumer electronic products. Furthermore, this particular orientation appears to be the best alternative, as it offers a way of understanding the sense-making framework of each respondent has developed over time, through their experiences, which ultimately construct their answers. In addition, the sample sizes involved in phenomenological study can be quite small, while still allowing the researcher to enter into the field of perception of the selected respondents in order to see life as those individuals do.

The phenomenological orientation applies well, if the intention of the study is to first indicate, how a certain group experiences a specific phenomenon and then, reveal the essence of the phenomenon. (Daymon & Holloway 2002, 14, 146-153.) Consequently, the first research problem aims to discover the meaning behind the phenomenon of environmentally friendly electronic products by establishing and describing the underlying market characteristics. The intent of the second research problem is to go deeper into the essence of the concept through the perceptions and experiences of the respondents and reveal possible development ideas.

A research adopting the qualitative approach can apply many methods as the means for collecting data. When choosing a method, it is crucial to ponder its relevance in terms of the research problem in question (Hirsjärvi & Hurme 2000, 34.) If selecting a research without consideration to the research problem, it can leave the researcher with a set of new problems instead of solving one. Guiding the method selection process is the nature and source of the information aiming to be gathered (Hirsjärvi & al. 2000, 170-171.)

In the case of the research, a semi-structured, face-to-face interview method seems most suitable, due to the flexible nature of it. Daymon and Holloway (2002) describe that, during an interview, the interviewer is at a direct contact with the interviewee, which allows the interviewer to steer the process of information gathering to a desired direction. This creates an opportunity for the interviewer to reveal motives behind the answers of the respondents that further help in the process of creating a holistic picture of the specific phenomenon under the scope, as for example, green products.

In a semi-structured interview the creation of questions occurs before hand in order to ensure that all issues and topics are covered and the lines of inquiry followed. However, the sequencing of the questions is not the same during the interviews, as it depends on the process of each interview. In other words, the semi-structured interview acts as a guide, but it still gives the researched freedom to which issues to pursue in a given situation.

A personal face-to-face interview is suitable, as it permits the researcher to convey a deeper picture of the interviewee's thoughts, perceptions, experiences and feelings, by allowing the interviewer to observe the expressions of the interviewee during a particular statement, which assists in discovering a deeper meaning behind the words (Daymon & Holloway 2002, 166-171.) The above description acts as reasoning behind the selection of the semi-structured interview method, as the central characteristics of the method is perceived to be suitable for collecting data in the case of the study at hand.

4.3 Phases of the research and the data collection process

The research process started during the fall of 2008, by drawing the first drafts of the research and selecting the interviewees together with Company X. Overall, the data consists of the interviews of four distributors and re-sellers working in the field of consumer electronics in Finland. All of the respondents are currently, or have been, in business association with Company X. As it can be seen from Table 1., below, the respondents are between the ages of 28-31 and they all have operated for a number of years in the field of consumer electronics, ensuring that they have had the opportunity to observe and gather professional information concerning green products, where to base their answers. The interviewees are all male but only by chance. The following Table 1., provides more detailed background information of the selected respondents.

TABLE 1. Background information of the selected respondents

	Respondent 1= R1	Respondent 2= R2	Respondent 3= R3	Respondent 4= R4
Gender	Male	Male	Male	Male
Age	31	31	28	29
Nationality	Finnish	Finnish	Finnish	Finnish
Educational Background	Bachelor of Business Administration	Secondary school graduate, Graduate of a commercial institute	Master of Economic Sciences	Secondary school graduate
Current professional title	Purchasing manager	Buyer/re-seller	Retail Manager	Product Manager / Purchasing Manager
Working years in the current professional title	3 ½ years	2 years	1 ½ years	4 years
Working years among consumer electronics	10 years	10 years	8 years	7 years
The location of current employment	Vantaa	Vantaa	Helsinki, Turku	Vantaa
Experience from abroad concerning consumer electronics	2 years	Business trips	—	—

In order to clarify the number of titles in the above Figure 1., and in the research, it seemed appropriate to clarify in simplistic terms the meaning behind these titles. The respondents purchase products from suppliers and therefore their job title is commonly

for example, retail buyer. Then, they further distribute and sell the products to for example, retailers, which explains why they also act as distributors and re-sellers.

The selection of the interviewees, representing a specific interest group, is based on numerous reasons. The overall goal of Company X is to gather information on green consumer electronic products from its various business partners involved in the consumer electronics industry. Selecting one specific interest group, to act as the source of data, founds upon the reality of limited amount of resources. Company X sees that the interest group of distributors and re-sellers could provide intuitive insights regarding the market situation, sustainability and development of green consumer electronics and therefore, the commissioner chose this specific group of experts as the source of information. Other interest groups such as, manufacturers or retailers of green consumer electronics could also act as respondents and as a source of data to another study.

It could be asked, why not study the insights of people regarding green electronic products and conduct a consumer level study, in order to attempt to reveal and describe, for example, the reasons amounting to the purchase of a certain green electronics product over another product. One of the main reasons Company X commissioned this study, is its need to discover the perceptions of the associates making business with Company X in order to understand their future business actions that could affect the business activities of Company X, as distributors and re-sellers buy, directly or non-directly, merchants imported by companies such as the commissioner. In addition, it is seen that the experts chosen as the source of information can possibly provide insights also on the purchase behaviour of consumers. The reality is that these insights are subjective and represent only the respondents field's of perception, however, this is still considered as valuable information, as the insights of the respondents, no matter how subjective, affect their business actions and therefore, as reasoned above, Company X.

Contacting the interviewees occurred during the fall, first by telephone, after which an email (see Appendix 2.) was sent to the respondents in order to inform them officially, the commissioner of the study, as well as, the reasoning and specific purposes behind the research. The attempt was to create the email in a manner that would not reveal too many details of the interview questions or research problems, in order to ensure that the

respondents would not think or plan their answers through before the actual interview sessions.

The creation of the semi-structured interview questions occurred before the interviews (see Appendix 3.) The questions acted only as a guide in order to ensure the coverage of all important areas but the nature and process of each interview is unique and therefore, the emphasis of the questions is rather light. The interviews took place during the timescale of 13.11.2008 – 13.1.2009 and each took approximately 30 minutes up-to an hour. The registration of the interviews occurred with a portable tape-recorder and the interviewer additionally took notes during all of the interviews, which occurred in the operational environments of the respondents.

Transcription of the recorded interview materials into a written form took place after each interview. Altogether, 65 pages of data resulted from the interviews. The perception is that a saturation among the data occurred after four interviews and the following transcription, coding and analysing processes. After reviewing the research problems, considering the amount of resources available and discussing with the commissioner, a conclusion was made that the data provided by the interviews of the four respondents was sufficient and of good quality in terms of providing information that could clarify the list of research problems.

5 THE UNDERLYING CHARACTERISTICS DESCRIBING THE CURRENT MARKET SITUATION OF GREEN CONSUMER ELECTRONIC PRODUCTS

5.1 Current market situation of green consumer electronic products

The general perception of the respondents is that, especially during past year, green products started to surface notably in the consumer electronics industry of Finland. The interviewees clarified that approximately a few years ago, certain well-known brands, various manufacturers and importers, started to promote green products and as a result, the respondents, among other interest groups, noted the arising trend of promoting green values. In fact, the impression of the interviewees is that these promotional activities of manufacturers put into motion a cycle of events in the industry of consumer electronics that is perceived to be, at least partly, the reason behind the increased supply of green products. From manufacturers and importers the knowledge of green product options reached various product suppliers, whom marketed the product concept further to, for example, retail buyers including the respondents. If a retail buyer would become interested, they would purchase the product options and sell the idea further. Apparently, this is the manner in which, products with new trends, such as the green products, commonly make their way from manufacturers, to the magazine outlets and in the end, hopefully reach the eyes of consumers.

Example 1. **RI:** *“No sanotaan tuota kasvamassa päin (kysyntä) ja siis kyllä tää vuosi on yksi sellainen iso vuosi. Jos mennään kolme vuotta taaksepäin niin ei, ei juurikaan puhuttu vielä hirveästi [...] mistä tämä meidän alalla on oikeastaan lähtenyt sillain niin kuin on tullut ehkä tuolta valkoisen kodinkonelinjaston puolelta elikkä siellä on niin kun pari, kolme vuotta sitten ruvettu kyselemään että paljonko jääkaappi vie virtaa ja kuinka paljon joku pakastin vie virtaa koska ne on niin kun semmoisia isoja virtaa vieviä koneita koko aika [...] Ja sit sanotaan et ihan viimeisenä laajentumana tänä vuonna on ihan selkeästi levinnyt tänne...puhutaan sit televisiopuolelle...tietotekniikkapuolelle.”*

“Well let’s say that it is growing (demand) and so, yes this year has been one of those big years. If we go three years back, then there was not much, not much discussion [...]from where this has strated from in our industry,

is probably from that white-housing-appliance side, so there like couple, three years ago people started to ask how much a refrigerator uses energy or how much a certain freezer takes energy, because those are like such big energy using machines all the time [...] And then let's say that as the last development this year it has clearly spread here...then we talk about the TV side...computer side."

The respondents have also marked an increased amount of interest towards green electronic products demonstrated by consumers during the recent few years. Furthermore, the respondents have observed an increased discussion over the environmental situation in the media and they reasoned that this has possibly helped raise the general knowledge level of consumers regarding the environment. In fact, they see that the general appearance of the environmental challenges has possibly made people more interested in discovering ways for them to support sustainability. The perception of majority of the respondents is that, consumers' interest towards green consumer electronics has increased during a close timely proximity with the observed general discussion in the media regarding the environmental challenges. Therefore, the respondents see a linkage between the increased environmental discussion, raised knowledge level of consumers and the increased interest towards products brand as environmentally friendly. The notion of the interviewees regarding the increased interest of consumers towards green products supports the notion made by Linnanen et al. (1994, 58), according to which consumers appear to be genuinely concerned over the environment and an increasing number desire to exhibit this felt worry directly through their purchase behavior. Acting as an example, the comment of respondent 1 below:

Example 2. **RI:** *"Joo, joo siis kyllä ihan yleisesti se trendi että puhutaan yleensäkin ilmastonmuutoksesta ja se tietoisuus lisääntyy niin sitten tietysti herättää niin kun mielenkiintoa ihmisillä. [...]...ja on ihan selkeästi...selkeästi nousut... tää vuosi on yks semmoinen varmasti ihan...yleisen tietoisuuden takia, mitä nyt ympäristöstä puhutaan ja näin päin se tietoisuus lisääntyy ja ihmiset osaa kyllä kysyä ja vaatia...monessakin tuotteessa jo sitten ihan..että onko tää, verrattuna esimerkiksi toiseen malliin niin...kuinka ympäristöystävällinen. [...]...mutta hirveän tuoteryhmä kohtanen...se tietoisuus. Se mikä on selkeesti lisääntynyt niin televisiossa on nytten lisääntynyt todella paljon...se tietoisuus...ja ehkä sen kautta se kysyntä[...]"*

"Yes, yes in general the trend of discussing commonly of the climate change and then the awareness increases and of course it raises as for

example interest among people. [...]...and it has clearly...clearly increased...this year for one is certainly...as in the case of common awareness, what is discussed about the environment and this way the level of awareness builds and people know how to ask and demand for...already with many products...that is this, compared for example with that other model...how environmentally friendly. [...]..however, it is immensely related to specif product categories...the awareness. What has been clearly increased is, with the televisions, it has now increased a great deal...the awareness...and maybe through that the demand [...]"

As it comes through from the above quote, it seems that the interest towards green products has evolved from product category to another. A few of the respondents describe that approximately a few years ago consumers started to show interest towards environmentally friendly aspects of consumer electronics categorized as white housing appliances such as refrigerators, freezers and washing machines. From the white housing appliances, the interest regarding green values among electronic products appears to have extended into other product categories of consumer electronics as well. This evolvement is currently showing on the market place and amounting to the growing interest expressed by the consumers and noted by the respondents.

However, the amount of interest demonstrated by consumers towards green products is perceived by majority of the respondents to be different between the various product categories of consumer electronics. It seems, there are certain categories of products, which raise more interest from consumers, when it comes to questions involving green features asked in a given purchase situation. Moreover, the impression among greater part of the respondents is that, consumers' general awareness of green products and their environmental attributes differ between the various product categories. This is why the respondents think that providing information to consumers of the various green products available in several product categories is important in order to raise awareness and build knowledge in terms of a wider range of products.

Furthermore, based on the experience of the respondents, there are also certain product features that seem to interest consumers more than others among consumer electronic products, in a given purchase situation. These features or factors are discussed in more detail in the following part.

5.2 The most appealing green features among electronic products

Based on the respondents' experience, the amount of electricity used by a certain white housing appliance product while functioning, is the first green characteristic or feature supporting environmental sustainability that consumers showed interest towards.

Furthermore, the respondents impression is that, consumers first took an interest on the energy efficiency aspects of white housing appliances and after a while, questions concerning the same feature started to appear in other product categories of consumer electronics as well. Therefore, it appears the interest regarding the energy efficiency of consumer electronic products, evolved from the white housing appliance category further to other product categories. All of the respondents clarified that, in a given purchase situation of a consumer electronics product, how much a certain electronics device utilizes electricity, while it functions or is in a stand-by-mode, is described to be the most interesting and common question presented by consumers, involving a product feature that supports green values. For example, respondent 2 gave the following statement, when asked to mention product features that receive interest from consumers:

Example 3. **R2:** *"...ei ainut, mutta ehdottomasti se tärkein on se virrankulutus, en kyllä osaa tässä hetkessä heittää muuta".*

"...not the only, but absolutely the most important is the energy efficiency, I am not able to think of anything else at this moment".

In fact, the common impression of the respondents is that, the energy efficiency of an electronics device is an important, if not the most important attribute in the minds of consumers that promotes sustainability. This seemed to be a rather clearly noted matter among the respondents, as attempted to exemplify by the above quote, where respondent 2 realizes that although it is not the only feature receiving consumers attention, he himself could not think of any other factor in that particular situation. The impression of the interviewees is that, the concept of energy efficiency is presently a very timely discussion topic in general in the society, because the rising price of electricity. Consequently, they

feel that the general discussion has most likely made consumers more aware over the electricity prices and is therefore, one of the factors affecting the perceived increase in the level of interest demonstrated by consumers, towards the concept among electronic products. In the below example, respondent 1 explains, what is his perception regarding the importance of energy efficiency in their industry:

Example 4. **RI:** “...yksittäinen isoin (tekijä) on kyllä virrankulutus[...] ja tulevaisuudessa niin kun ylipäättään virrankulutus on varmasti se yks isoin...argumentti mikä on ja...se on ihan selkeästi...selkeästi noussut. [...] ja nimenomaan sen virrankulutuksen kautta sitä vielä enemmän osataan kysyä...materiaaleista tai valmistustavoista. [...] Ja tosiaan, ihan suoraan sähkönhintaa nousee esimerkiksi se tuntuu ihmisillä kukkarossa ja sitten ruvetaan kysymään...ja ihmisillä on yllättävän paljon erinäköisiä laitteita kytkettynä kotia ja niistä on...sanotaan...rupee olemaan se tietoisuus sillain että se rupee tuntumaan siellä omassa kukkarossa sitten kun tekee oikeita valintoja sen suhteen... ja koko aika enemmän määrin ja nimenomaan se trendi on ollut tuolta valkoisen kodinkonelinjaston puolelta...perinteisesti ollut kohtalaisen paljon energiaa vieviä sitten. Ja nykypäivänä tosiaan televisiot isonee koko ajan ja virrankulutukset ja sitten on tietokoneet niin...niin jos ajattelee niin on ne nyt varmaan, jos ei nukkumaan mennessä, mutta muuten koko aika päällä. Että vaikka ne periaatteessa vie vähän sähköä, mutta jos ne on 20 tuntia vuorokaudessa päällä niin kyllä se vuositasolla rupeaa kyllä tuntumaan. “

“...the biggest single (factor) is the amount of electricity consumption of products [...] and in the future, in general, the amount of electricity consumption is definitely one of the biggest arguments there is and...that is clearly...clearly increased. [...] and specifically through the electricity consumption, people know even more to ask about...materials or production methods. [...] And truly, as the price of electricity rises, as an example, it affects the purses of people and then they start to ask...and people have surprisingly many, different types of equipments attached in their houses and they cause...let's say...there starts to be awareness, in a way that, it starts to affect in the purses of people and then, if one makes right choices in terms of...and all the time, in growing terms and especially the trend has become from the category of the white-housing-appliances, because traditionally those are equipment using meaningful amounts of energy then. And nowadays, as a matter of fact, televisions get bigger all the time and the current consumption and then there are the computers so...so if you think about it, they are open and functioning all the time, besides probably when going to sleep. So, even tough, in principal these use low amounts of energy, but if they are open and functioning 20 hours per day, it starts to have an effect at a year-level.”

Seemingly, consumers realize to ask other green product features through energy consumption, as respondent 1 notes in his above comment, further emphasizing the importance of the concept in the consumer electronics industry, as a competitive product feature promoting green values. The energy efficiency of products is perceived by the respondents to be one of the most important factors affecting the consumers' final choice of a product. Moreover, they predict the concept is going to keep its status and possibly even create more interest among consumers in the future, as energy price is conceived to keep on rising.

When it comes to electronic products and environmental values, the interviewees have additionally marked other issues that interest consumers such as, recycling and packaging related aspects of products, as well as, the product life cycle of products in general. The respondents' impression is that, some consumers find the life cycle of an electronics product intriguing, as consumers are presenting more questions concerning the amount that a certain product loads the environment during its service years. In fact, the observation and perception of several of the respondents is that, customers have demonstrated a raised amount of interest especially in, what occurs in the final phases of a product life cycle. In other words, what happens to a product or its components, when it reaches the end of its service years and where can consumers find appropriate service to help them recycle a product in a manner that minimizes the stress causing to the environment. Acting as examples, the comments made by respondent 1 and respondent 2:

Example 5. **R1:** *"...meijän alalla mikä on yks semmoinen...mikä on tota aika..aika tärkeä kysymys sitten kans, osittain liittyy sitten...ei suoraan tuotteeseen, mutta sitten elinkaareen...sitten että mitä sille tapahtuu sen jälkeen...onko meille mahdollista palauttaa ne sitten tänne meille ja saako vaihtokoneita ja näin pois päin...menee sitten siihen kierrätykseen...ja tällöisiä niin kun suoraan kysellään".*

"...in our industry there is a sort of...what is quite...quite an important question as well, partly involved with...not directly to the concrete product but to its life-cycle...what happens to it after...is it possible to return the products to us or can they exchange the product and so forth...it relates to recycling...and these types of questions are asked directly".

Example 6. **R2:** *"...on huomattu että ihmiset vähän tutkii pakkausmateriaaleja...et onko se pahvista tehty pakkausmateriaali vai onko sitten*

muoviblisteriopisto niin...et, et se on vähän niin kun semmonen mikä nyt kiinnostaa[...] esimerkiks televisioissa pakkausmateriaalit on yks iso asia, sekä sitten niitten itse televisioiden tuotteiden...niin kun komponenttien kierrätys, nopeus ja semmonen on...on yks mitä on ihan selvästi ihmiset ruvennu huomaamaan.[...] mutta sitä on niin vaikea todentaa sitten, että mitä tapahtuu (komponenttien kierrätyksessä jne).

“...it has been noted that people explore a little of the packaging materials...or is it made out of cardboard or is it a plastic package...so, so it is something that seems to be quite interesting [...] for example the packaging materials among televisions is one big matter, as well as, the actual televisions as products...or like, the recycling of the components, speed and like that is...is one that is notably something that people have strated to notice. [...] but it is so hard to verify what happens (during the recycling of component etc.).”

The above examples demonstrate the general observations of the respondents, according to which, there are several features in electronic products supporting green values that receive questions and are thus, perceived to interest consumers. However, as respondent 2 notes, the non-electricity related features of products, such as the recycling process, are harder to verify at a concrete level in a store. In fact, all of the respondents think that, one of the reasons positioning energy efficiency, as the number one competitive product attribute promoting green values, is the facility to make the benefit concrete in the eyes of consumers. For example, respondent 3 and respondent 2 had the following observations and opinions regarding the concept of electricity consumption in consumer electronics industry:

Example 7. **R3:** *“...toi sähkönkulutus on asia jota osataan kysyä koska se on tällainen helposti...helposti ymmärrettävissä oleva asia ensinnäkin, näkyy siinä laskussa jonka sähkölaitos lait... lähettää”.*

“...electricity consumption is a matter that people are able to ask about because it is the type of a matter that is easily...easily comprehended first of all, because it is showing in the bill put...sent by the electric company”.

Example 8. **R2:** *“...kyllä se on niin kun...kasvavaa, kasvavaa koko aika se et ihmiset tulee ja halua tietää enemmän ja enemmän. Mekin halutaan sit tarjota asiakkaalle, jälleen kerran otamme television mikä on aika helppo esimerkki, niin esimerkiks sellainen mahdollisuus että voi katsoa kulutusmittarista kuinka paljon se vie...tietyissä valaistusolosuhteissa virtaa [...] tällainen sähkönkulutusmittari, näyttää faktisenluvun et mitä, mitä tekee missäkin tilassa...televisio... [...]sitä kautta sitten ehkä*

asiakaskin motivoituu, kun ne näkee että...hei, että tähän vaikuttaa nää sellaiset parannuspiirit sun muut, että sitten kun tämä laitetaan päälle, niin se vie vähemmän virtaa.”

“...it is like...growing, growing all the time, the fact that people come and want to know more and more. Then, we also want to offer consumers, let’s take once again the television, which is quite a good example, so as an example there is the opportunity to observe from an electricity consumption meter, how much it utilizes electricity...in specific lighting circumstances [...] this type of an electricity meter, that shows the factual amount of electricity utilized or what, what happens in given circumstances...as in the case of a television... [...] and that way possibly a consumer also gets motivated, when they see that...hey, this is affected by perimeters and such, so then as these are turned on, it uses less electricity.”

The general impression among the respondents that, it is more likely to motivate a consumer to buy, if he or she can concretely observe the possible benefits of a product with own eyes, as the above quotes attempt bring forward. Therefore, it seems that a product feature with competitive advantage potential is one, which benefit can be easily demonstrated to consumers. More specifically, an attribute that shows consumers the advantage, environmental benefits or the possible economical savings they can make, if they purchase that certain green product. According to the respondents, the ability to prove or display the benefit of a green product is one key element that makes a successful green product since, consumers need something concrete to show them how a product is environmentally friendly, or in other words, something provable to motivate them to make a purchase decision. These remarks and opinions of the respondents unite with the notions made in the study of Moisander (1996, 113-129) presented earlier in chapter 1. The results of that particular research stipulate that, surprisingly many decision-makers, not only marketing practitioners but also policy-makers, fail to comprehend that green consumers do not have only environmental protection related motives for their purchase decisions. As all living beings, ecologically minded consumers also aim to satisfy their own personal needs.

The common perception among the respondents is that, smaller electronic devices receive only a minor amount of interest from consumers at the current moment. They further explained that this is most likely the case because, it is harder to demonstrate the energy efficiency and possible savings of smaller electronics, as opposed to, the larger appliances

such as, TV's, refrigerators, washing machines and so forth, which use relatively substantial amounts of electricity while functioning. Therefore, the concrete benefits and savings of smaller devices are harder to prove and demonstrate, as mentioned by respondent 1 in his comment below:

Example 9. **RI:** *“No, vielä ei ole kyllä hirveästi... että jos niin kun sillain niistä isommista puhutaan niin on sitten tosiaan niistä valkoisista kodinkoneista tai sitten tietokoneet ja telkkarit...niissä niin kun näkyy selkeästi mut sit kun ruvetaan menemään, niin kun käytännössä vähän mitä halvempiin tuotteisiin ja pienempiin tuotteisiin niin...kyllä aika vähän, vähän on siellä kysyntää. Ja siellä...oma näkemys on siinä myöskin sitten...että siellä ei välttämättä se oo niin konkreettinen se hyöty asiakkalle perusteltavissa että miksi...miksi sitten niin kun pitäisi tällöinen tuote...tuote ostaa. Että näissä niin kun...tiettyissä tuoteryhmissä on helppouksia kun ei tarte kuin sanoa että sä säästät vuodessa tän verta rahaa, kun sä ostat tän mallin etkä tätä mallia, mutta sitten niin kun tällöisissä edullisemmissa ja tällöisissä...osittain myöskin tuotteissa mitkä moni pitää nykyään jopa sitten sillain kertakäyttötuotteena ettei niitä tarte korjata tai et jos menee rikki niin sitten ostetaan uus tilalle niin se (vihreät arvot) ei ole kyllä...siellä ei ole kyllä lyönyt läpi...”*

“Well, currently there are not a lot of...or if we talk about the larger ones (products) then, there we can in fact find from the white-housing-appliances or then computers and TV's...there it shows clearly but then if we strat to move to, in practical terms, to cheaper products and to smaller products well...there is quite, quite a small amount of demand. And there...my perception is also in this situation that...there the concrete benefit to the customer is not demonstratable, as in why...why should one purchase such a product. So, as in these...there is easiness in specific product categoriez, when one does not have to say anything else than, you will save this amount of money a year, when you buy this product model instead of this model, but then with these cheaper and sort of...partly also with products that that are perceived by many to be nowadays even as disposable goods, so that there is no need for repair or if it breaks then a new product will be bought to replace it, there it has not...there it (green values) has not pushed through...”

However, the all of the respondents still see that smaller electronic products or relevant accessories have market potential. In addition, the respondents believe that other product features supporting green values, besides electricity consumption, have potential among electronic products in general. In order to increase the interest of consumers towards smaller electronic goods and other green features, the interviewees state that it requires

that these attributes be brought to the attention of consumers and more importantly, the benefits of these attributes are made concrete to people, as stated by respondent 4 below:

Example 10. **R4:** *“Joo, kyllä mä väittäisin että potentiaalia on (ympäristöystävällisillä tuotteilla), mutta se vaati sen että ne asiat niin kun konkretisoidaan ja tuodaan...tuodaan niin kun sen loppukuluttajan naaman eteen ihan suoraan.[...] niin kun että; hei, käyttämällä tätä sä säästät sen X euroa vuodessa.”*

“Yes, I would claim that there is potential (in environmentally friendly products), but it requires that these matters are made concrete and brought...brought directly as in front of the final consumer’s face. [...] as in; hey, by using this you will save X amount of euros a year.”

5.3 Pricing and the relationship between green and normal consumer electronic products

According to the impression of the respondents, one factor has the most influence on consumers purchase decisions in majority of situations. When it comes down to making the final decision between two or more products, the crucial purchase criterion seems to be the prices of the products. The respondents clarified that, in most situations when a consumer is deciding between two products, the cheaper one is usually the chosen one, no matter which one of the products support green values.

During the interviews, it became evident that setting the actual price for green products is an especially tough challenge. The interviewees see that, it is hard to set the right price for a product that earns its environmentally friendly status by, for example, being produced in a more efficient manner or by being entirely recyclable, because it is rather difficult to measure or observe environmental benefit such as these, in a concrete manner. As established previously, it seems that only the energy efficiency of products is perceived to be a feature, which benefits can be relatively easily demonstrated to consumers. Therefore, it seems that, if the benefits or savings of a green electronics product cannot be concretely demonstrated to buyers, it can create difficulties in terms of the pricing of the product.

The respondents see that it is crucial to price green products accordingly because, as mentioned, in most purchase situations, the price of a product is clearly the most meaningful issue to a consumer during a purchase event, as exemplified in the quote of respondent 1:

Example 11. **RI:** *“Yksi iso merkittävä tekijä on hinta. Siis, se on varmasti isoin merkittävä tekijä. Se gäppi ei saa olla liian...liian iso olla ja tosiaan riippuen tuote, tuoteryhmistä ja...ja näin. [...] Ja kuinka se on perusteltavissa sille asiakkaalle...asiakkaille.[...]...tämmönen niin kun...kokreettinen hyönty on helposti perusteltavissa, mut jos sitten tosiaan ei oo niin helposti sitä...tämmöistä niin kun jotain ihan numeraalistafaktaa niin, se on sitten jo vaikeampi sitten eritellä näitten niin kun valmistusprosessien tai materiaalien tai tämmösien käytöstä, niin se on jo selkeesti vaikeampaa tossa sitten asiakkaan kanssa ruveta käymään, että: Nyt kun ostat tämän niin...tämän laitteen niin siellä on tämmöisiä juttuja taustalla ja tämmöstä.”*, niin se on paljon vaikeempi perustella ja saada sitä kautta se...hyväksyntä. [...]...itseasiassa jos ne tuotteet ois saman hintaisia niin ihan varmasti asiakkaat valittis sen...sen ympäristöystävällisen, vihreen tuotteen. Se on ihan, ihan varmasti näin...[...]...sitten mitä kilpailukykyisemmäksi ne saadaan, niin kun hinnoiltaan verrattuna muihin, on tärkeä tekijä.”

“One of the most important factors is the price. Or, that is surely the biggest meaningful factor. The gap can not be too...too big and in fact, depending on the product, product categories and...and so. And how it can be demonstrated to customer...customers. [...]the type of...concrete benefit is easily demonstrable, but if it does not have that...the type of numeral facts then, it is more difficult to differentiate the manufacturing processes or materials or the use of these types of things, so it is clearly more difficult to go through these things with a customer, as in: Now that you buy this then...this equipment then at the background of it are these types of things and matters, so it is a lot harder to justify and that way get the...approval. [...]in fact if the products would be of the same price, the customers would definitely choose the...the environmentally friendly product, the green product. That is definitely so... [...]...then, the more competitive the product will be able to be made, as in terms of their pricing when compared to others, that is an important factor.”

The prevailing impression of the respondents is that on the surface consumers appear to be interested in green products and promoting the concept of sustainability, but in reality, consumers are not ready or willing to spend more money on green products. This observation of the interviewees is in accordance with the research results of Uusitalo (1993). The research in question concludes that, even though consumers appear to have the

desire and motivation to make an ecological act, one of the largest obstacles in the way of committing the ecological act, is their unwillingness to pay a higher price for product supporting those ecological values (Uusitalo 1993, as quoted by Linnanen & al. 1994, 59-60). Below is a longer discussion with respondent 4, acting as an example of the above discussion. It is considered that the entire discussion describes most effectively, what is the general opinion among the respondents concerning the issue at hand:

Example 12. **Interviewer:** *“Mä luin...ööö... yhden tota tutkimuksen ja siinä oli, taisi olla jo muutamia vuosia sitten, mutta et näkyy semmonen et kuluttajat on valmiit pistään niin kun oman hyödyn, tavallaan sen yhteiskunnan hyödyn ja luonnon hyödyn sen oman hyödyn edelle. Niin...mitä olet mieltä siitä? Miten näkökulmasi on...täällä markkinoilla?”*

“I read one research, it may have been conducted a couple of years ago, but it showed that consumers are willing to put their own benefit aside, in order to, in a way support the benefit of the society and nature. So...what do you think of this? How about your perception...here, in the market place?”

R4: *”Niin...no joo. Siis tietty ainakin jos ihmisiltä kysytään niin ne sanoo näin”. / “So...well ok. So, of course if people are asked this, they will say that this is the case”.*

Interviewer: *“Mitenkäs todellisuudessa sitten?”*
/ *“What is the reality then?”*

R4: *“Todellisuudessa mä veikkaan että ei oo ihan samanlailla kuitenkaan”. / “My guess is that the reality is not quite the same”.*

Interviewer: *“Mistä tämä johtuisi?”*
/ *“Why do you suppose this is the case?”*

R4: *“No koska kaikki haluaa olla ekologisista kuitenkin loppupeleissä”. / “Well everyone wants to be ecological in the end”.*

Interviewer: *“Miksi?”*
/ *“Why?”*

R4: *“No sen takia kun kukaan ei halua olla se kusipää joka tuhoaa maapallon”. / “Well because no-one wants to be the asshole who ruins the world”.*

Interviewer: “Niin. Mut mitenkäs sitten...tää on tää halu mutta mites sitten se käyttäytyminen? Näkyykö se käyttäytymisessä...lopulta?”
/ “Yes. How about then...this is the case of the desire but how about the behaviour then...in the end?”

R4: “Sanotaan varmaan, että niin kauan kun se maksaa enemmän niin...ei näy niin isosti, sanotaan näin [...] rahastahan se on kiinni... mä en usko että esimerkiksi minä tai me jälleenmyyjinä saatais niin paljon asiakkaita sisään ostamaan sitä yhtä meidän tuotetta jota me halutaan myydä, jos sitä tuotetta mainostetaan sillä että se on ekologinen. Kun taas puolestaan jos me mainostetaan, sitä että tää on pirun halpa tuote, ja sä haluat tän. [...] Et tota, money makes the world go around.”

“Let’s say that probably, as long as, it (green products) costs more than...it will not demonstrate itself notably, let’s say it like this” [...] it depends on the money...I do not think that for example, I or we as re-sellers would be able to get as many customers in to purchase one of our products that we want to sell, if that particular product is being advertised by it being ecological. Then, if in turn we advertise that this is a damn cheap product and you want this. [...] So, money makes the world go around.”

Overall, the interviewees in general see that the prices set for the products, affect crucially to making the sale and getting customers interest, as it comes through for the above example. This particular notion of the respondents is at least partly agreeing with the conclusion represented in the research of Niva and Heiskanen (1996), discussed previously in chapter 1, according to which, the most important factors affecting purchase decisions of consumers are the price and quality of a product (Niva & Heiskanen 1996, 49).

Consequently, the respondents’ unanimous opinion is that green products should not cost relatively more than normal products, at the moment, since the category of green products is perceived by them to be at the introductory phase in terms of product life cycle (see for example, Kotler, Armstrong, Saunders & Wong 2002, 518). As a result, the recommendation of the respondents is that, this realization should reflect on the prices in order to create interest among consumers. The primary preference of the respondents is that the prices of green products would be set at a same level with the normal products, or even less, in order to create interest and further endorse growth in the demand level of the products. Acting as an example, the comment of Respondent 2:

Example 13. **R2:** *“Ostohalukkuus varmaan... sanotaanko niin että se niin sanottu vihreä tuote ei saa olla yhtään kalliimpi kuin se normaali tuote...toistaiseksi valitettavasti näyttää siltä että ihmiset ei oo vielä valmiita maksamaan siitä. Sitä ei koeta niin konkreettiseksi asiaksi vielä. Ainakaan suuren massan osalta. Tottakai on pienempiä ryhmiä, jotka sitten vaan katsoo... vähän sama kuin kaupasta ostetaan kevyttuotteita, että ne ovat ainoita oikeita tuotteita. Lähtökohtaisesti kuluttajalle kaikista niin kun järkevintä, olis että vihreät tuotteet olisivat saman hintaisia kuin normaalit... ja millä myöskin saatais nopeammin ihmiset kiinnostumaan näistä tuotteista. “*

“The willingness or desire to purchase supposedly...let’s say that the so called green product can not be any more expensive than the normal product...as for now, unfortunately, it seems that people are not ready or willing to pay for that. It is not experienced to be a concrete matter yet. At least not in the case of the greater mass. Of course, there are smaller groups, whom just see...it is the same thing as with the low-fat product categories in the shops, that they are the only right product. The most sensible strating point for consumers would be that green product would be prices at the same level with normal products...and this would also get people to become faster interested in these products.”

The previous discussion brings forwards the question of, what is the actual availability or supply aspect of green consumer electronic products in the Finnish market place, according to the perceptions of the respondents. The previous parts have clarified that, there is interest towards green products and some green product attributes are more appealing to consumers than others are. Nonetheless, the availability or the supply aspect of green products is considered to be an important matter worth clarifying, since the relationship between demand and supply create an overflow, an underflow or harmony of products in the market place, considered to be one central factor characterizing the market place.

5.4 The complex nature of the availability aspect of green electronic products

The availability of green electronic products appeared to be somewhat complex matter and the respondents found it quite hard to describe or give a direct unambiguous answer to the supply aspect of the tangibles. One of the respondents clarified that he would need to have experience from other countries in order to compare his perceptions related of the availability of green products. This particular comment is demonstrated below:

Example 14. **RI:** *“Ööö...paranemaan päin. Nyt täytyy sanoa että pikkusen vaikee asia, et en oo...ois pitäny olla jossain ulkomailla päin vaikka duunissa et tietäs paljon niitä siellä saa että niin kun...mutta tota enemmissä määrin ja tota...mut ei kuitenkaan kyllä et jos puhutaan niin kun tuoteryhmien sisäisesti löytyy muutamia tuotteita, et kuitenkin...ei se tarkoita vielä kovin laajaa, siis niin kun...ei missään nimessä et ois niin ku joku “fifty-fifty” tilanne valita niin kun, vaan yleensä niin kun tuoteryhmässä voi olla viiskymmentä tai sata tuotetta mistä ruvetaan valitteen niin sieltä voi löytyä 1-5, jotka niin kun täyttää jollakin vaatimuksella...asteikolla sitten tän...tän ekologisuuden. Aika, aika sinäänsä taas aika pientä, mut se mikä on hyvä on et eri tuoteryhmiin on tullut edes se yksi vaihtoehto nyt viime aikoina, että on ollut monta, monta tuoteryhmää mistä ei löydy ollenkaan.*

“Mmm...it is improving. Now, it has to be said that it is a rather difficult matter, as I have not...I would have had to of been somewhere abroad for example, working, in order to know what is the availability there so as in...but anyway in increasing terms and...but not however, if we talk inside product categories then, there are some products, so as in...it does not mean that it is extensive, or as in...the situation is not in any case so that there is a 50/50 availability to choose from, or in general, in a product category there can be fifty or a hundred products from where to select and there it is possible to find 1-5, that meet according to certain criterion...scale then the...the ecological requirement. Quite, quite small, but the fact that is good in here, is the appearance of even that one product option among the product categories, during the recent times, as there has been many, many product groups where these options can not be discovered at all.”

The impression of majority of the respondents that, the definition of an ecological product is rather vague since, apparently there are no specific standards created for green products, as the above quote is intents to exemplify. As a matter of fact, the respondents see that in nearly every product category, there are products that the manufacturer could claim to have a certain feature or characteristic, allowing them to categorize that particular product as a green product, since apparently there does not exist a list of official standards forbidding it. Additionally, a few of the respondents explained that, seldom manufacturers brand only one product as being environmentally friendly, apparently they tend to label entire product lines according to a certain trend. It seems that, the availability aspect of green products appears to be affected by the manufacturers' way of branding their products, as mentioned by respondent 4:

Example 15. **R4:** *“...mä puhun siitä että tuote brändätään ekologiseksi, eli luodaan se mielikuva sille asiakkaalle, loppukuluttajalle että tää tuote on ekologinen, todellisuudessahan se ei välttämättä edes ole sitä.[...] kaikkihan riippuu siitä mitkä on lähtökohdat. Jos sanotaan että tän tuotteen valmistukseen on kulunut promille vähemmän jotain, niin silloin se on ekologisempi kuin se toinen tuote. [...]...noi on vähän sellaisia veteen piirrettyjä viivoja et kuka oikeesti siitä tietää et miten ekologinen tän niin kun kyseisen, esimerkiks nyt telkkarin tuotantoprosessi oikeasti on. [...] On niitä (vihreitä tuotteita) saatavilla sinäänsä, mutta tässä päästään taas siihen että...että tota miten vahvasti valmistajat on brändännyt ne. Eli, tota nyt esimerkiks puhutaan, just oli puhe Samsungin ja Sonyn telkkareista niin...ööö... Sony teki hyvän kampanjan tosiaan sen yhden kilpailijan kanssa. Ne oli ihan samoja tuotteita mitä meillä oli, mutta meillä ei ollu nimetty sillä eko-edellä. Vaan se oli niiden oma kampanja, ja se saatavuus on ollut erinomainen näissä tuotteissa kaikilla.”*

“...I am talking about the fact when a product is branded as ecological hence, an image is been created to the customer, to the final consumer saying that this product is ecological, in reality it might not even be the case. [...] it all depends on what is the strating point. If it is said that the manufacturing of this product uses a permillage less something, then the product is more ecological than another product.[...] ...those are a little like lines drawn in water, as who actually knows how ecological, as an example, the manufacturing process of this television is in reality. [...] There is availability (of green products) in so many words, but here we reach the topic of...of how effectively manufacturers have branded these products. In other words, as an example currently the discussion concerns...the television of Samsung and Sony were just discussed so...mmm...In fact, Sony made a good campaign with one of its competitors. The products were exactly same that we had, but we had not named them with the ecological label. It was their own campaign and the availability of these products has been excellent with everyone.”

As mentioned, the absence of official standards that define a green product is perceived by the respondents to give companies the opportunity to brand products as green that in reality might not differ notably from the normal products. Respondent 4 describes this occurrence in his above quote, as a line drawn in water, due to its vagueness. In fact, based on the interviews, it seems that identical products are marketed in one store, as being ecological and in a second store without the ecological label. This suggests that, customers of the first store perceive the product as ecologically friendly where as, consumers of the second store perceive the same product as a normal one. In the end, this appears to have an affect on, what is perceived to be the availability of green products.

What is more, these realizations imply that the branding choices of manufacturers have a meaningful affect on the perceived availability of green products.

The shared observation of the interviewees is that, in general, companies have realized the possible monetary benefits of involving ecological values to products. Earning profit is undoubtedly the aim of every company and the foundation for economic growth, but if products are brand as green ones, without a concrete justification, it creates a conflict. Moreover, if mistrust regarding green products starts to spread among consumers due to the misleading branding of manufacturers, it could additionally cause consumers to doubt the values of green products that in reality would support environmental values. In fact, it seems there are problems occurring in this upfront, as established in chapter 1 of the study, the research results of Niva and Heiskanen (1996, 48-52) conclude that, mistrust on information provided by product manufacturers is high and the northern eco-label does not seem to ensure those consumers that do not know the official nature of the label. The respondents' development ideas regarding to this particular issue, are further discussed in chapter 6.

The general impression among the respondents is that, there are green products available in the market place. However, when the number of green products is compared to the amount of normal products in the market place, then it becomes clear that the availability of green products is minimal. The respondents' impression is that, green products are drowning among the masses of normal electronic products at a store level and they consider inadequate branding and product information supply, to be among the causes of this perceived occurrence. In fact, the study of Niva and Heiskanen (1996, 48-52) concludes that consumers are demanding information that is clear, understandable and easy to read, which is perceived to enable them to make environmentally conscious choices. The results show that, consumers feel they can only make ecological product choices, if they can trust that the information provided to them is reliable and without biases.

The availability aspect of the market place of consumer electronics raises other issues to the surface. The above discussed respondents' observation suggest that, there are insufficiencies in branding and in the information supply of product related information

provided to consumers regarding green products. This brings us to the second part of the research results, where the focus is on the development aspects of green consumer electronic products and the aim is to reveal the professional opinions interviewees regarding the manner in which the above-discussed inconsistencies could be attempted to be solved.

6 DEVELOPMENT AND FUTURE PROSPECTS OF THE GREEN CONSUMER ELECTRONICS PRODUCT CATEGORY

6.1 The nature of the information supply in the field of consumer electronics

As established in part 5.1, the respondents have observed an increased environmental discussion, which may have raised the awareness level of consumers regarding the environmental situation and furthermore, increased the interest of consumers towards products that are branded as environmentally friendly. This notion implies that, environmental information appears to have a rather direct effect on the behaviour of consumers in the case of green electronic products.

However, even if consumers receive more information regarding the environmental situation and problems in general, it does not mean that the information concerning green product options is sufficient. In fact, based on the respondents' observations, the situation appears to be quite the opposite, as they described promotional activities and material involving green products to be currently minimalist, nonexistent or at least, not easily available to consumers. Acting as an example the comment of respondents 1 and 4 below:

Example 16. **Interviewer:** *“Mikä on sitten teidän mielipide tai...kokemus näitten vihreitten tuotteitten informaatiosta, et kuinka paljon sitä on tarjolla kuluttajille*

“What is your opinion or...experience concerning the nature and amount of green product related information, or how much it, is available to consumers?”

RI: *“...mä sanoisin...et aika varmaan kuitenkin loppujen lopuksi vähän...siis tämmöisessä niin kun helposti saatavassa muodossa...jos mieltii nyt jotain...Siis niin kun on sitten prosyyrin muodossa tai netissä tai lehdissä. Kyllähän niitä näkyy mut ei niitä vielä niin kun missään nimessä...niin kun liika näy, et enemmänkin vähemmän kuin enemmän, mitä näkyy tällä hetkellä, ainakin mun näkemys on semmonen.”*

“...I would say...that possibly in the end rather little...as in an easily accessible form...if one thinks of something...as in the form of a prochure

or in the world-wide-web or in magazines. Yes it is showing but not by any means...too much, in fact it is less than more, what is currently showing, this is at least my perception.”

Example 17. **R4:** *“No ei...jos mä mietin vaikka itseäni siltä kantilta noin niin kun ostajana, niin se että esimerkiksi mulle ei oo esimerkiksi tarjottu ekologisuus edellä näitä tuotteita, niin kertoo ehkä jotain. Väittäisin että aika huonosti siitä on niin kun infoa liikkeellä.”*

“Well no...if I think for example, my-self as a buyer then, the fact that I have not been offered any products that would be marketed by primarily being ecological, that probabl tells something. I would claim that information concerning this is pretty poorly on the move.”

The intention of these particular examples is to exemplify the agreed opinion of the respondents according to which, the amount and nature of the current marketing activities promoting green products is perceived as inadequate to build demand at a larger scale. In fact, the supply of information regarding green products and their features is observed to be quite poor, as for example respondent 4 mentions that he, personally, has not received any marketing material of green products.

Consequently, the common outlook of the respondents is that, informing consumers of the availability, benefits and prices of green products through various marketing channels has a central meaning in building awareness, creating interest and in the end, establishing demand for green products. As Vuokko (2002, 10-12, 19) states, consumers need information concerning products and services in order to make purchase choices, which means that companies need to inform consumers of their products in order to get consumers to buy their tangibles. If consumers do not know enough of a product, its attributes and benefits, it is more difficult to raise demand.

6.2 Insights of the promotional activities concerning green electronic products

Furthermore, the interviewees' impression is that consumers do not know the differences between normal products and green products and most of all, they do not know the concrete benefits of green products that make them environmentally friendly in the first

place. This appeared to be the main reason, why all of the respondents stated that, marketing of green products should be increased in all forms.

Example 18. **R2:** *“markkinoinnissa pitäisi lisätä ihan konkreettisesti, mitä se tekee, miksi se tuote on vihreä ja kuinka paljon siitä hyötyy että se on vihreä tuote. Kuinka paljon se syö virtaa valmiustilassa ja kuinka monta prosenttia siitä on kierrätettävää tavaraa, että...Se on niin kun, se on kaikkien näiden sertifiikaattienkin takana, että pitää tietyt kriteerit täyttää ja sitä kautta, mutta asiakas ei välttämättä sertifiikaateista tiedä mitään tai että jos siinä lukee joku kiva pikku...pikku logo että; täytetään ne ja ne vaatimukset, niin kuluttajalla ei oo mitään tietoo mitkä ne vaatimukset on. Eli, ehkä tällaisten ihan konkreettisten arvojen näyttäminen on jollakin asteella tärkeitä. [...] Se kun tiedostaa ja tietää enemmän niitä mahdollisuuksia mitä on tarjolla niin...mä luulisin et sieltä löytyy se motivaatio. Mutta peruskuluttaja tänä päivänä niin ei oo välttämättä ihan perillä, että kuinka paljon tuotteet vie sähköä ja mikä niiden valmiustilanero on sitten taas taas käyttöön ja niin edespäin.”*

“What it does, why the product is green and how much one benefits from the green product, should be increased concretely in marketing. How much it absorbs electricity in a stand-by mode and how many percents of the product is recyclable, so...It is like, behind all of these certificates, that it has to meet certain criterion and through that, but the customer does not necessarily know anything about certificates and if the products has a nice, tiny little...little logo stating that; fulfilling these and these requirements, a consumer has not any knowledge of what these particular requirements are. Therefore, it is possibly important at a certain level to demonstrate the type of concrete values. [...] The fact of realizing and becoming aware of the opportunities that are available...I think there motivation is found. However, the average consumer of today, is not necessarily so well-informed of, how much products utilize electricity and what is the difference between the stand-by mode and function mode of products and so forth.”

During the interview sessions of a couple of the respondents, it became evident that there seems to be an additional reason for them to hope for the increased marketing activities of green products, besides building consumers awareness. The answers of these respondents imply that in some cases, even the various value chain parties operating in the field of consumer electronics, are not receiving enough information on green products. Furthermore, they feel that marketing would have an important task of providing information to the groups associated in the value chain of green products. The respondents specified that, as re-sellers, they need product information from

manufacturers, suppliers and importers, in order for them to sell the products further more efficiently. In other words, it seems that some of the respondents consider that information helps them perform their jobs better. This contributes to the fact that information is considered crucial in order to sell the products further to the end user.

Example 19. **RI:** “... niin paljon on eri näköisiä tuotteita mistä ihmiset eivät tiedä mitään ja se että jos myyjä ei sitten osaa tarjota tai sitten ei niin kun missään markkinoinnissa näy niin... monesti on sitten että se jää sinne vaan hyllyyn, hyllyyn makaamaan [...] markkinointiin liittyy tietysti... monta asiaa ja tota... meidän näkökulmasta kyllä toi myyjien... myyjien koulutus ja tietoisuus on niin kun avain asemassa, niin kuin että se...niitten, niitten myyminen helpottuu huomattavasti siinä kun myyjäkenttä tietää mitä ne on myymässä. [...] ...ja jotenkin se ymmärrys siihen, vähän sama kun äänestämässä että voiko yksi ääni vaikuttaa mut kyllä se tietysti voi vaikuttaa. Et sais kuluttajat ymmärtämään sen just et, kun tarpeeksi paljon porukkaa saadaan niin ymmärtämään et se vaikuttaa...mut...toi, toi vaaliteema on aika hyvä siinä että se on niin kun samallalailla et moni ajattelee et miksei me äänestetä, niin ei me äänestetä sen takia että...ajattelee et ei sillä oo mitään merkitystä ja...vähän sama juttu tossa vihreissä tuotteissa.”

“...there are so many different sorts of products, which people do not know anything and if a salesperson is not able to offer it, or then, if it is not showing anywhere in marketing then...frequently the case is then that, it will remain just lying on the shelf, shelf there [...] ...of course there are many things related to marketing...many things and so...from our point of view the salespeople...salespeoples’ education and awareness is in a key position, as in the...the selling process gets notably easier there, when salesforce knows what they are selling. [...] ... and also the understanding to the fact that, it is in a way quite similar with voting as in, can one vote have an impact, but of course it can have an impact. If able to make consumers realize the fact that, when enough of people are able to be made understand, that it affects...but that election theme is a rather good example there, that is to say that, in many ways numerous people wonders why they do not vote, they do not vote because...many think that it does not have any meaning and...it is a rather similar thinkg with the green products.”

Apparently, in the current marketing material, green products tend to remain in the shadows of the normal products and do not differentiate enough from the normal products. Some of the interviewees noted that, during the short time period consumers usually utilize to flip through a marketing brochure or equivalent, does not suffice in bringing forward the benefits of green products. In fact, the recommendation of all of the

respondents is to increase the overall supply of promotional material regarding of green products, market them as a special group of products, and to bring the environmental benefits of the tangibles to the attention of consumers through various outlets. The previously argued research of Niva and Heiskanen (1996) revealed similar results, as they concluded that, at a certain purchase event consumers do not have the time or want to familiarize with product information available and thus use small amount of time to make purchase choices. The study further points out that, consumers demand information that is clear, understandable and easy to read, which enables them to make environmentally conscious choices (Niva & Heiskanen 1996, 48-49.)

The respondents further pointed out that, convincing consumers of the benefits of green products would be best reached by additionally utilizing other means of marketing along side with the so called normal promotional tools such as, magazine and television advertising, promotional pamphlets and so forth. This would improve the chance of catching the attention of the consumers. The respondents have various ideas in terms of what type of marketing material and what type of a marketing channel would best suite the purpose of promoting green products, as listed below. At this particular situation, it seemed important to list all example ideas of the respondents gave to improve the promotion of green products, as they are considered experts in the field and their specific words would best describe their ideas:

Example 20. **RI:** *“...jos niin kun yks iso, iso tekijä otetaan niin, siis kyllähän niin kun netti on yks iso tekijä, lähinnä ihan siitä että, kyllähän tietoa netistä haetaan hirveästi. Et Suomessakin on tilanne et niin kun...tietoa niin kun etsitään on-linena mutta niin kun ostetaan off-linena, et se tullaan kuitenkin myymälään sitten se tuote vielä ottamaan...[...]...siellä niin kun...ainakin niin kun massoja saa tietoiseks, niin kun varmasti kaikista helpoiten. Sit tietysti on printtimainonta, tv mainonta...toimii osittain...nüitten tietysti, se vaan että siellä se, yleensä se kesto voi olla sen yhden päivän tai kaks ja sitten seuraavalla viikolla ei muistakaan et...enää asiakas sitä että siellä oli semmonen ekologinen tuote...Ja sitten ihan tosiaan, puhutaan meillä siellä myymälätasolla, niin tota...sanotaan nyt että vois ehkä vieläkin selvemmin tuoda niitä tuotteita esille...”*

“...if we take one major factor then, the internet is one big factor, mainly because information is searched immensively through the web. In Finland, the circumstances are that...information is serched on-line but bought off-line, as the products is still bought from the store...[...]...there it is

possible to...get masses of people aware, as in the most easy manner. Then there is of course printed advertising, TV advertising...working partly...their of course, the thing that there the, the duration can be lasting that one day or two and then, in the next week one does not remember that... there was the type of an ecological product...And then, in fact, when talking on the magazine level...let's say that the products could be displayed more clearly there..."

- Example 21. **R2:** *"Esimerkiksi niin että kerrotaan jossakin postituksessa, että katso netistä tämän tuotteen viherarvot tai jotain vastaavaa... [...] ...nykypäivänä lähes kaikilla kuluttajilla, tai ei nyt kaikilla, mutta suurimmalla osalla kuluttajista on pääsy internetiin, joko sitten kotona tai sitten kirjastossa tai tienpäällä tai missä tahansa, että...se olis sellainen niin kun kustannustehokas paikka. Toinen on, toinen ihan erillinen postitus että missä olisi vaan vihertuotteita ja muutamat lauseet vihertuotteiden kehittelystä ja kaikkea tällaista. [...] Että meilläkin on tässä kodinkoneet, elektroniikka, tietokoneet, puhelimet, kamerat, kännykät...niin tällöinen yhdistelmäliite tuotteista, missä on ajateltu vihreitä arvoja. Se vois olla asiakkaalle hyvinkin niin kun konkreettinen esimerkki, että kaikista tuotteista löytyy joku...vihertävä ajatus.[...] Eli, vanha kunnon printti plus sitten nettiyhdistelmä, niin voisi olla kaikista toimivin."*

"For example, so that in a certain mail advertisement it says that check the internet for the green values of this product or something equivalent... [...] ...nowadays almost every consumer, or not everyone, but the majority of consumers have the ability to access the internet, at home or then, at a library or on the road or all around, so...it would be the kind of a cost-effective place. Another one is a separate mailing advertisement where there would be only green products and a few sentences on the development aspects of green products and all things like this. [...] We also have here the housing appliances, electronics, computers, phones, cameras, cell-phones...as in this type of a conjoined attachment of products, where green values have been thought of. That could be a very concrete example to the customer, saying that all of these products have a certain...green idea. [...] Hence, a good, old print plus then, the internet combination could be the most effective."

- Example 22. **R3:** *"...tietenkin perusmainonta on oma asiansa, mut et sanotaan näin et, jos tätä ympäristöystävällistä ajatusmaailmaa just haetaan niin, niin mä luulen et siihen sopis niin kun[...] paremminkin kuin tällöinen...no, eri tyyppistä, et tota saatais tuotteita testattua esimerkiksi jossain ...uskottavassa mediassa, jossa kiinnitetään huomiota näihin ympäristöasioihin. Et ne siellä kävis läpi et hei, onkos...täs nyt on tällöinen tuote joka väittää olevansa ympäristöystävällinen, et onko se totta...todella. Et mä uskon siinä et, pitäis olla uskottava tarina takana ja tota niin...mielellään tosiaan niin et se ei oo vaan sinä itse, joka kerrot sen tarinan vaan et se sitten jossain testataan...en tiedä et lehdessä vai jonkun*

blogissa vai, missä se on mut mä uskon et tässä asiassa sillä sanomalla on enemmän merkitystä.”

“...of course basic advertisement is its own category, but let’s say like this that, if searching specifically for the intellectual world of environmentally friendliness then, then I think that for that it would fit [...] better as supposed to this...well, different type, so that products would be able to get tested somewhere for example...in a credible media, where the focus would be on environmental issues. There it would be discussed that, hey, is this...here is a product that claims to be environmentally friendly, so is it true...in reality. So, there I think is where a credible story should be on the background and as in...preferably, in fact, so that it is not you personally, who tells the story, but rather that it is tested somewhere else...I do not know whether in a paper or in the blog of someone or, where it is, but I believe that with this particular matter the message has more of a meaning.”

Example 23. **R4:** *“...sen punaisen langan pitäisi oikeestaan seurata ihan niin kun läpi linjan. Eli, jos niin kun media ryöpyttää sitä tai sanotaan että Hesarissa on stroori, niin sit seuraava sivu pitää olla jonkun valmistajan mainos, missä kehutaan sitä asiaa, ja sit seuraavalla sivulla pitää olla jälleenmyyjän mainos missä sanotaan et; hei, sä saat nää tuotteet meiltä. Se on se, mikä puuttuu oikeestaan tällä hetkellä.[...] Et se kuluttaja alusta loppuun tietää, että mitä sen pitää tehdä, jos se haluaa sen kyseisen tuotteen ja mistä sen saa.”*

“...the red thread should actually follow completely through the line. Hence, if the media whirls it or it is stated that there is a story in Helsingin Sanomat (newspaper of Helsinki) then, on the next page has to be the advertisement of a certain manufacturer, where the issue is praised and on the next page the has to be the advertisement of the re-reller, where it is said that, hey, you can get these products from us. That is currently, in fact, what is missing. [...] So that the consumer knows from the beginning to the end what he has to do, if he wants that particular product and where to get it.”

A few of the interviewees reminded that of course all marketing is good in terms of promoting products, but the problem is the finance aspect of the matter. Marketing activities are expensive and therefore, companies usually cannot promote products everywhere or use multiple promotional tools. The main importance seems to be currently, regardless of the marketing channel or promotional tools used, in informing the consumers of the availability of green products, features of the tangibles and concretely informing people where they can buy these products. In addition, it appears vital to

maintain the “red thread” in the promotional activities and emphasize the good values of the products in order to create consistency in the message, as described by respondents 4 above.

6.3 “Money makes the world go around”

In spite of the amount or the quality of promotional activities, or the importance of promoting sustainability in terms of acquiring greener products, the respondents feel that in the end, the price of a product still has the greatest influence on consumers’ purchase decisions, in majority of situations. As mentioned previously, the interviewees experience is that the price is the number one denominator in purchase situations of any type of an electronics product and furthermore, that consumers are not ready or willing to spend more money on green products, until they become more aware and appreciative of the ecological benefits of the products. Respondent 4 gave the following statement regarding the position of green products in the market place:

Example 24. **R4:** *“...mun mielestä ensinnäkin lähtökohta siitä, tai jo lähtökohtaisesti siis mun oma henkilökohtainen mielipide asioista on se että, jos sä haluat olla ekologinen, miksi helvetissä sun pitää maksaa siitä enemmän? Se on niin kun lähtökohtaisesti väärä ajattelutapa. Niiden tuotteiden jotka saastuttaa niin niiden pitäisi olla kalliimpia, mutta kun se ei mene niin. Ja mä uskon, että aika monilla on sitten loppupeleissä toi vähän toi sama ajatusmaailma. [...] ...mä sanoisin että... että ihmiset on varmaan kuitenkin valmiit...tai vähemmän valmiit maksamaan enemmän ekologisesta tuotteesta et jos se on kalliimpi siinä kassalla, niin silloin todennäköisesti otetaan kuitenkin se edullisempi, mikä nyt ei oo nyt sitten brändätty ekologiseksi tuotteeksi. [...] Ehdottomasti löytyy ihmisiä jotka ei ajattele näin ja tota niin...se on ihan fine. Mutta mä väitän että suurin osa edelleen kuitenkin miettii sitä omaa napaansa vähän...itsekeskeisemmin. [...] Kulutuselektronikka tuotteissa...ihmiset aina kokee sen niin kun kauheen vaikeeksi, ei tiedetä et mitä haetaan ja tota näin pois päin niin ...mä uskon että se mitä mainoksissa sanotaan ja millainen brändimielikuva esimerkiksi jollain on, niin se on älyttömän olennaista.”*

“...in my opinion firstly, the starting point of that, or the starting point of my personal opinion regarding matters is that, if you want to be ecological then, why the hell you have to pay more for it? That is, as in the starting point of the way of thinking is wrong. The products that pollute more should cost more but that does not go like that. And I think that quite many

have that same world of perception in the end. [...] ...I would say that...that people are nevertheless probably ready...or less ready to pay more for an ecological product, if it costs more on the register then, probably the product that is more favorable in terms of the price is chosen, what is not branded as an ecological product. [...] Absolutely there are people that do not think this way and well...that is quite fine. However, I claim that the majority thinks their own advantage in a bit more...self-centered way. [...] With consumer electronic products...people always experience it as a really difficult issue, people do not know what they are searching for and more or less like that...I believe that what is being said in adverts and what type of brand image, for example, someone has is extremely relevant.”

It comes through from the statements of a couple of the respondents that the angle from which the consumer masses and the society appear to be viewing and appreciating the ecological aspects of products is wrong in the current world, as stated quite clearly by respondent 4 above. In fact, the perception among some of the respondents is that, as long as ecological values are not appreciated among the masses or in the society, the position and pricing of green products in the electronics industry is not changing. There is also some doubt to whether the situation is ever going to change, as respondent 4, noted the following:

Example 25. **R4:** “Niin kauan kun eletään monetaarisessa yhteiskunnassa, niin en näe että tämä tulisi muuttumaan. Et se on tää koko...idea.”

“As long as we are living in a monetary society, I do not see that this is going to change. That is the entire...idea.”

However, Rissa (2001, 45) states that, the costs amounting during the use of a product are often considered by demanding consumers to be more important than, the original purchase price of that product. In fact, according to Rissa, the aspects of product durability and environmental friendliness are becoming increasingly meaningful competitive factors. Therefore, it appears there is hope at sight.

The above mentioned opinion of the respondents regarding the power of money is not intended to diminish the importance of increasing marketing of green products. Actually, the opinion of every respondent is that marketing and spreading information has an

imperative meaning in the attempt of changing the viewpoint of the masses, and developing the inconsistent nature characterizing the electronics industry, created from the contradictive situation between ecological values and money. According to the respondents' opinion, increasing the promotional activities of green products would endorse the spreading of information that would predictably help consumers realize and appreciate the ecological benefits of green products in comparison with normal products. Moreover, the prices of green products could possibly be raised in the future to a level that would be in accordance with the benefits they bring, if a change in consumer attitudes and purchase behaviour occurred.

As a conclusion, there are several development aspects related to green products that the respondents perceive to be important preconditions for raising the demand of the product category. The respondents underlined that first and foremost there should be more green products available in the market place. The next step is to increasing the overall promotion of green products and to differentiate the product alternatives from the normal ones in a clear manner, in all marketing material.

6.4 Underlying development ideas and future predictions regarding green consumer electronic products

The opinion of the respondents is that the development of the category of green products would most likely be best achieved through the collaborative effort of various interest groups involved in the consumer electronics industry. The respondents noted that, every interest group has always room for improvement, when it comes to developing operations or basically, anything. A few of the respondents stated that for example, their interest group of distributors and re-sellers should improve their actions by bringing the benefits of green products more efficiently to the attention of consumers, as for example respondent 4 realized during his interview below.

Example 26. **R4:** *"...varmaan ihmisille pitää tuoda just nämä käytännön asiat et paljonko sä oikeasti säästät vuodessa käyttämällä tätä tuotetta contre (vastaan) tätä tuotetta, 500 euroo...okei, aika radikaali esimerkki, mutta jos näin olis*

esimerkiksi niin säkin varmaan ostaisit sen toisen.[...]ja...no se on tietty sitten oikeastaan...meidän jälleenmyyjien ja tavarantoimittajien harteilla.”

“...supposedly consumers need to be made aware of these practical as in, how much you really save during a year by using this products contrary to this product, 500 euros..alright, a rather radical example but if this were the case then, probably you too would buy the other one. [...]...and...well it is of course then actually...on the shoulders of us, the re-sellers and the suppliers.”

It became evident, especially during the interviews of a couple of the interviewees, that they hope there would be more co-operation and communication between the various value chain operators in the field of consumer electronics, as it is perceived to help them perform their work responsibilities better. Furthermore, collaboration appears to be a key business function in ensuring the transfer of information and building knowledge of the green products' beneficial features that could finally help in the process of convincing the consumers of the benefits of the products.

Nonetheless, after the respondents thought of the matter a little longer, they further stated that, manufacturers have the necessary product information and knowledge necessary to trigger the development process of green products. Therefore, the primary responsibility regarding the market development of green products is seen to belong to the companies producing the products. The following examples represent the ideas of two of the respondents, when asked to describe development ideas regarding market situation of green products in terms of value chain operations and operators:

Example 27. **R2:** *“...se on varmaan enemmänkin monen, monen asian yhteis...yhteisymmärryksessä, mitä pitäisi tehdä. [...] Saatavuus-asia ehkä lähtee enemmän sieltä maahantuojan puolelta, että...et...tietysti meilläkin, jos ajatellaan et me ostetaan tavaraa ja jos me ei tiedetä et se on vihreätuote niin...sekin pitää olla selkeä kertomus sieltä tavarantoimittajalta meille päin että me pystytään sitten taas viestittämään se kuluttajalle, että ollaan tehty tällaisia päätöksiä ja hankittu...ehkä se kehitys lähtee sitten myös tavarantoimittaja- ja maahantuojienpuolilta, että...et sieltä otetaan enemmän kantaa näihin arvoihin.”*

“...it is probably more something that would have to be done in the mutual...mutual understanding of many...many matters. [...]The availability issue probably strats more from the manufacturer side so...that...of course we as well, if we think that we buy merchandise and if

we do not know that it is a green product then...that also should have a clear explanation from manufacturer to us so that we can further communicate that to the consumer, that we have done these types of decisions and acquired...maybe the development also starts from the supplier-manufacturer sides so...there they take more initiative concerning these values.”

Example 28. **RI:** “...kyllähän se valmistuksesta ja valmistajista niin kun lähtee liikkeelle, mut et miten se sille kuluttajalle tuodaan siinä niin kun siinä osto...ostotilanteessa tai sen tuotteen markkinoinnissa et... mut sitten kun mennään niin kun tämmöseen ehkä valmistusprosessiin ja materiaaleihin ja tän tyyppiisiin, niin miten siitä saatais...tuotua niin kuin paremmin esille, että tää on tietyn periaatteen mukaan valmistettu mikä tarkoittaa että jotakin säästyy tai jollakin on paremmat oltavat tai näin, niin kun tätä kautta...et se on tietysti hirveen vaikee tuoda niin kun tässä myymälätasolla niin kun asiakkaille...asiakkaille sitten niin kun esille. Et tämmöiset niin kun mitattavat arvot, helposti mitattavat arvot niin nehan on niin kun...konkreettisia hyötyjä on helposti perusteltavissa, mut...eniten...eniten ois kuitenkin...niin kuin pitäis saada ihmiset niin kuin tajuamaan tietyillä tuoteilla...on vaikka taustalla se, että siellä niin kun tosiaan esimerkiks sademetsää tai jotain muuta säästyy niin ...sen tuominen on niin kun tosi iso...iso ja hankala juttu, että se on oikeesti kyllä tosi vaikee. [...]Mut niin kuin sanoin niin mun, mun mielestä siellä ei vielä niin kuin ihan...ihan niin kun sellaista läpimurtoa oo vielä tehty...tehty sen...sen kanssa, koska tuolla oikeesti, oikeesti on tällä hetkellä tiettyjä tuotteita löytyy millä ois niin kun selkeesti enemmän kerrottavaa ja annettavaa, kun sen jotenkin järkevästi sais tuonne ihmisille kerrottua.”

“...it does start from the manufacturing and manufacturers but how it is brought to the attention of consumers at that purchase...purchase situation or in the marketing of that product so...but then when you go to this manufacturing process and materials and this type of matters...then, when you go to this manufacturing process, how could one...bring it more efficiently to the surface that this is produced according to a certain principle what means that it is saving something or someone has better surrounding or like this, as in through this...it is of course enormously difficult to bring these forward to customers...customers here, at a magazine level. The type of measurable values, easily measurable values are as in...concrete benefits are easily demonstrated but...however it would be the most...the most...to get people, as in to realize that certain products...have on their background that they do in fact save the rainforest or something else is saved so...briging this forward is a really big...big and difficult task, so it is in reality a very difficult task. [...]Nevertheless, as I said that my opinion is that there has not been a breakthrough yet with that because there are certain products that really, really have currently more to inform and to give, if only it could be told reasonably to people.”

The development of the green electronic product category is seen as the sum of many components and not by any means an easy task. In fact, the above comment made by respondent 1, attempts to bring forward the perceived difficulty that was observed in all respondents, while they tried to think of ways to make the environmental values of green products appear more concretely into the eyes of consumers.

Overall, the respondents see the future prospects of green products to be promising, as their shared impression and opinion is that the environmental values are just starting to get a better threshold in the industry of consumer electronics. Moreover, the prediction of every respondent is that the revolution of green products and the trend is only at the beginning phase, as the interest in these types of products is described to be currently rather extensive among the interest groups operating in the industry. Some of the respondents reported to have observed personally a heated discussion relating to green products. In addition, the respondents see that the rising price of electricity acts as an accelerator that can motivate consumers to search for product solutions that use electricity efficiently and saving money on electricity expenses. These future predictions of all of the respondents are seen to be represented by the thural comment of respondent 2 below, which therefore acts as the example:

Example 29. **R2:** *"...menekki tulee tietysti kasvamaan sitä myöten kun niitä ruvetaan enemmän...kertomaan niistä, mainostamaan niitä sekä ruvetaan enemmän hankkimaan. Ja tota...uskon että sille on olemassa ihan selkeä kysyntä. Ihmiset haluaa tuotteita, mitkä voidaan luetella vihertäviksi tuotteiksi tai mitkä kuluttaa vähemmän virtaa kuin toiset tuotteet. Et esimerkkitapaus on kodinkoneet, missä se on jo tapahtunut aika hyvin et ihmiset haluaa vaihtaa pesukoneen mikä kuluttaa vähemmän ja sen energialuokitus on parempi kun vanhan pesukoneen, vaikka vanhassa pesukoneessa ei olis mitään vikaa. Elikkä tämmönen muutos varmaan tulee tapahtumaan myös meidän alueella, että...koska telkkari on iso virran kuluttaja, kotonakin voi hyvinkin olla ja kaikki tällaiset vaikuttaa ja kyllä se rupeaa kiinnostaan. Energianhinta nousee, vaikka maailman talous heikkenee. [...]...tulevaisuudessa varmaan joka ikinen merkki tulee menemään jollakin asteella vihertäviin tuotteisiin, et se siinä vaiheessa tasoittuu sitten. Se on ollut...niin hurjaa tällä hetkellä, että miten kaikki rummuttaa sitä asiaa niin...mä en näkis mitään syytä, että jos siihen käytetään tällä hetkellä niin paljon rahaa sen asian esille tuomiseen, niin miksi se yhtäkkiä unohdettais. Ja kun yks tekee, niin yleensä kaikki seuraa perässä. Et kyllä nykyajan ihminen alkaa niin kun aika paljon tiedostamaan, mitä ympärillä tapahtuu [...]...oma näkemys ja oma...oma niin kun filis on,*

mitä nyt toistaiseksi on katsonut tota meininkiä niin on se, että...et, et kyllä se varmaan tulee edelleen jatkumaan saman tyylisenä, et kyllä se (vihreät tuotteet) kaikille on kiinnostavaa...kiinnostava asia, niin kun pitääkin.“

“...sales will of course grow accordingly when the marketing of the products increases ...and information, advertisement concerning the products increases, as well as, the products are acquired more. And well...I believe that there exists a clear demand for it. People want products that can be categorized as green products or that use less electricity than other products. Acting as an example the housing appliances, where it has already occurred quite well as people want to change a washing machine that consumes less and its energy categorization is better than in the old machine even though, the old machine would have nothing wrong with it. Hence, this type of a change is probably going to occur also in our area, so...because the television uses a lot of electricity and at home this could very well be a factor and it will start to interest. The price of energy is rising even though, the world economy is deteriorating. [...]...in the future probably every single brand will develop, at a certain level, to green products and at that stage the situation will even out. It has been so wild at the moment, how everyone drums that matter so... I do not see any reason, if so much money is used currently to bring forward the matter, so why would people all of a sudden forget it. And when one does something then, usually everyone follows. So the human of the current world starts to be quite aware of the things that are occurring in the surroundings [...]...my personal perception and my own...own feeling is that, the occurrence what I have observed for the time being is that...so, so it is probably going to continue in a similar fashion that they are (green products) an interesting...interesting matters to everyone, as it should be.”

7 CONCLUSIONS

The environmental challenges appear to be among the most discussed topics of the 21st century, as noted earlier. It seems that, especially during the recent years, the environment has demonstrated growing signs of its deteriorating condition through various natural disasters and a dark picture of the future seems to have started to form into the minds of people. In fact, the research results of Heiskanen and Timonen (1996, 45-52) establish that, majority of the respondents taking part in the study were concerned or extremely concerned about the world wide environmental problems and living prospects of future generations.

Various decision makers and policy creators have realized how important it truly is to promote sustainable development, in order to create a brighter picture of the future. Consequently, the acknowledgement of the Council of the European Union is that, there is a need for economic systems to take into account the limits of the earth and decrease the amount of pollution and usage of natural resources and therefore to further support environmental policies, which take into consideration the entire life cycle of products and services. The central challenge of the future is to secure both environmental protection and economic and social development, all strongly influenced by products' production and consumption. As discussed earlier in chapter 2.1, the Integrated Product policy (IPP) of the Council, aims to provide new solutions and possibilities in achieving sustainable development in the world of business and it has a central role in promoting sustainable consumption and production. This involves promoting the diffusion of greener products and cleaner technologies (Integrated Product Policy 2003b, 2-5.)

Furthermore, researches appear to have a rather important role in promoting sustainable development, as it is established in the 2003 report of the Council that, studies can provide important information, which further can act as a basis for the development of environmentally friendly technologies, products and services. What is more, supporting inter-disciplinary research is seen by the Council as an imperative mean in the process of identifying challenges and opportunities that need to be identified in order to steer the course of the world into the direction of a more sustainable production processes and

consumption behaviour. In order to meet the goals of sustainable production and consumption, the different needs of actors in the supply chain need to be taken into account and all the relevant forms of information need to be developed or improved (Integrated Product Policy 2003b, 6.)

As deliberated earlier, the commissioner of the research, Company X, operates as an importer in the consumer electronics industry and it has noted the increased growth of the environmental business during recent years and marked the appearance of green products in the industry, in Finland as well as abroad. Based on these reasons, Company X is interested in discovering what type of signals are reflected from the market place of consumer electronics concerning green products in order to find out whether these types of products have market potential. The commissioner realizes that in order to discover up-to-date information, it is important to communicate and share information with its interest group associates. In other words, in order for Company X to have current information from the market place that could assist it to make decisions relating to its importing activities, there becomes the need to study the market position of green consumer electronic products.

Studies that focus especially on green consumer electronics was not discovered, which additionally supports the need for the research in question. Furthermore, the previously conducted studies discovered, are mainly consumer level studies that concentrate on green product in general. The notion of Company X is that it would receive most beneficial information, if its own current or past business associates would act as the resource for the data.

The above discussion involving the IPP-report of the Council of European Union, clarifies the central reasoning and motivation behind the research in question. However, the research primarily founds upon the needs of Company X, while recognizing the bigger picture. The results can additionally be beneficiary to other companies or operators, but while examining the data, one should keep in mind that, the research problems base upon the needs of the commissioner therefore, the results do cannot be used to make generalizations.

Overall, the general perception among the respondents is that, especially during the past year, green products started to surface notably in the consumer electronics industry as the result of the increased promotional activities of certain bigger brands, manufacturers and importers. The respondents have also observed an increased environmental discussion in the society, in general, during the recent times, as well as, noted consumers raised interest towards more environmentally conscious product alternatives. In fact, they see a linkage between the increased environmental discussion, the raised knowledge and interest level of consumers concerning of green electronic products.

However, the impression of the respondents is that the amount of interest demonstrated by consumers towards green products, varies among the assortment of product categories in consumer electronics. The general opinion arising from the interviews is that, there are certain product categories, which raise more interest in consumers in terms of questions presented in a given purchase situation involving green electronics. Moreover, the thought among greater part of the respondents is that, consumers' general awareness of green electronics and their environmental attributes differ between the various product categories. In other words, there are green product alternatives in specific product categories, which existence consumers appear to be more aware of than the green products available in other product categories. In fact, the respondents' impression is that, consumers are more aware of specific product categories because the marketing material and promotional activities of these categories is better than the other categories. The green products that are marketed more efficiently, receive more inquiries from consumers. Therefore, it appears that the amount and nature of information that the consumers receive, affects the general awareness that consumers have regarding the existence of green products, which further affects interest demonstrated towards the products and in the end, the demand of the products.

According to Linnanen et al. (1994, 58), various conducted studies regarding the environmental attitudes of Finnish consumers, establish that a majority of the Finns believe they can affect positively to the development of the environment through their purchase decisions. The scholars further clarify that consumers seem to be genuinely concerned over the environment and an increasing number desire to exhibit this felt worry

directly through their purchase behavior. Therefore, the notions of the respondents seem to be in accordance with the remarks of the scholars in question.

However, there appears to be some kind of a conflict between the consumers' desire to promote environmental values through their purchase choices and their actual purchase behaviour. The prevailing impression of the respondents is that on the surface consumers appear to be interested in green products and promoting the concept of sustainability, but in reality, consumers are not ready or willing to spend more money on green products. According to Linnanen et al. there are numerous reasons acting as obstacles in front of environmentally friendly consumer behaviour (see Figure 3. below).

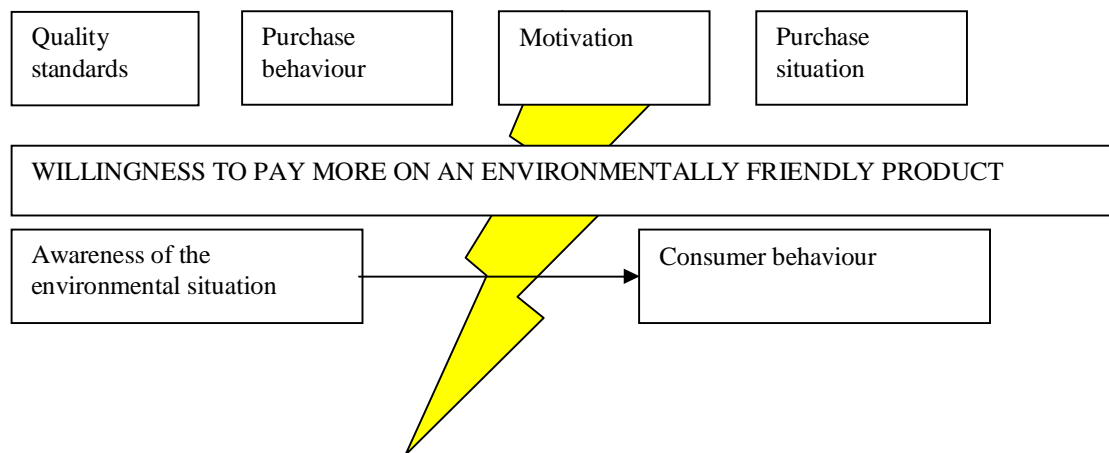


FIGURE 3. Obstacles in the way of environmentally friendly consumer behaviour (Maffert & Kirchgeorg, 1993 adapted by Linnanen, Boström & Miettinen 1994, 60)

Linnanen et al. (1994) establish that, consumers appear to have the desire and motivation to make an ecological act, but one of the largest obstacles is their unwillingness to pay a higher price for product supporting those ecological values. The scholars bring forward the results of a study conducted by Uusitalo (1993), according to which, consumers usually have a high motivation to act in an environmentally conscious manner but sometimes they lack to ability to make these types of choices or then, the outside opportunities are not favorable. The results of the same study also point out that, some

consumers may, however, have the opportunity, but lack the desire to act in an environmentally friendly fashion (Uusitalo 1993 as quoted by Linnanen & al. 1994, 59.) It appears that the most meaningful obstacles in they way of consumers environmentally friendly behaviour relate to knowledge, the functionality and quality of a product, personal habits, motivation and purchase situation, as listed in the figure above (Linnanen & al. 1994, 58-61.) Hence, it seems that the opinions and notions of the respondents regarding the consumer electronics industry are in harmony with the presented research results of Uusitalo concerning the environmental attitudes of consumers.

According to the respondents' experience, there are certain product features that raise more interest in consumers over others, among consumer electronic products (see Figure 4. below).

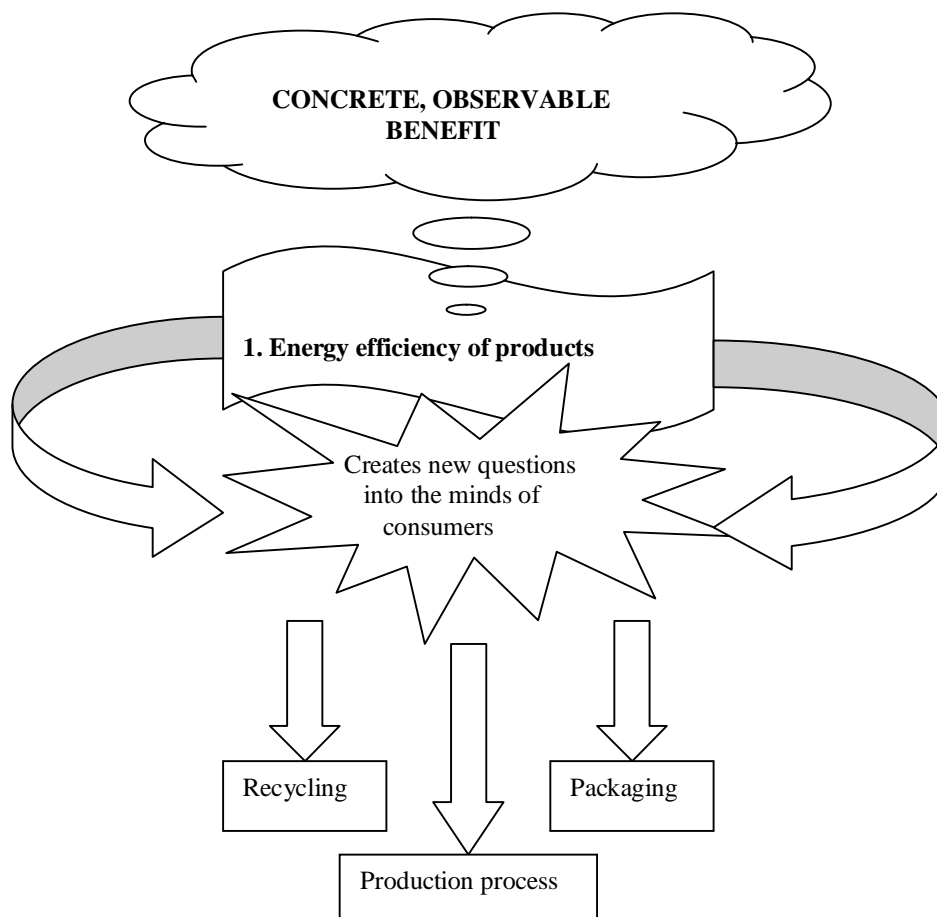


FIGURE 4. The features and attributes of green consumer electronics products raising interest in consumers

The shared observation of the respondents is that, how much a certain electronics device utilizes electricity while it functions or is in a stand-by-mode, is the most common question related to green values, asked by consumers during a given purchase situation of a consumer electronics product. Some of the respondents further clarified that, the consumers may first ask questions relating to energy efficiency of products and after they realize to portray other types of questions that relate to green matters, as for example, the recycling, packaging or manufacturing aspects of electronic products. Therefore, the impression of the interviewees is that the product feature or an attribute that consumers find the most interesting is the energy efficiency of electronic products.

Apparently, it is relatively easy to demonstrate the savings and benefits of a product that utilizes lower amounts of electricity by for example, using an electricity meter in a store, as suggested by the respondents. In fact, the respondents see that, it is more likely to motivate a consumer to buy a certain electronics product, if he or she can concretely observe the possible benefits of the product with one's own eyes. Consequently, the respondents reasoned that, consumers probably find the energy efficiency of products interesting mainly, because it brings them monetary benefits. In fact, the respondents predict the energy efficiency of electronic products is most likely going to keep its status, as the most interesting feature among consumers, and possibly in growing terms, since the price of energy is conceived to keep on rising. Overall, the common perception among the respondents is that, a green product with success potential is one that has a concrete benefit to offer and which can be demonstrated to the consumers.

The respondents consider the pricing aspect of green products to be especially challenging with products that offer the type of benefits or savings that cannot be concretely demonstrated or observed by consumers. For example, environmental benefits amounting from recycling are hard to demonstrate at a store level to the customers. According to the respondents, when it comes down to making the final decision regarding the purchase of an electronics product, the prices of the tangibles are clearly the most meaningful factors affecting the purchase decisions of in the case of majority of consumers. Therefore, the respondents see that it is crucial to price green products accordingly.

The unanimous opinion among the interviewees is that green products should not cost relatively more than normal products, at the current moment, since the category of green products is perceived by the respondents to be rather new arrivals in the market place, in terms of a product life cycle. The respondents think that this notion should be accounted for, when setting the prices of green products. Based on the above reasoning reasons, the primary preference of the respondents is that the prices of green products would be set at a same level with the normal products, or even less, to created interest among the consumers towards the products and further endorse the growth in the demand levels of these electronics.

The availability of green electronic products appeared to be a somewhat complex issue, as they found it quite hard to describe or give a direct unambiguous answer to the supply aspect of green products. Seemingly, manufacturers infrequently brand single products as being environmentally friendly, but they rather tend to label entire product lines according to a certain trend, such as the green trend. The interviews revealed that, apparently, there are some inconsistencies in the branding aspect of green products, which affects the general perceptions of people concerning the availability of green product.

Evidently there are no specific standards created that would establish or define what makes a green product. This lack of standards is perceived by the respondents to give companies the opportunity to brand their products as green, event tough the reality would be that the products in question would only be a permillage more environmentally friendly than others. Therefore, this suggests that the environmental friendliness of certain products could in fact be questioned. Furthermore, the observations of the respondents reveal that identical products can be marketed in one store, as being ecological and in a second store without the ecological label. This suggests that, customers of the first store perceive the product as a green, more ecological product, where as, consumers of the second store perceive the exact same product as a normal one. In the end, this affects the perception of what is the availability of green products. These impressions of the respondents imply that the branding choices of manufacturers have a meaningful affect on the availability of green products.

As established, the respondents have observed an increased environmental discussion, which may have raised the awareness level of consumers regarding the environmental situation and furthermore, increased the interest of consumers in green products. This impression of the respondents implies that, the supply of environmental information seems to have a rather direct effect on the behavior of consumers in the case of green electronic products.

However, the respondents emphasized that, even if consumers receive more information regarding the environmental situation and problems in general, it does not mean that they obtain a sufficient amount of information concerning the availability of green product options or promotional material in general. It is considered important by the respondents that consumers are provided with information, specifically involving green electronics, because majority of consumers might not realize to search or ask for green products, even though there would be an increased amount of information available regarding the environmental challenges. In fact, based on the respondents' observations, information concerning green electronics product appears to be inadequate, as they described the promotional activities and material involving green products to be currently minimalist, nonexistent or at least, not easily available to consumers. According to the shared perception of the respondents, there are numerous undeniable reasons to increase the marketing material and promotional activities of green electronic products (see Figure 5. below).

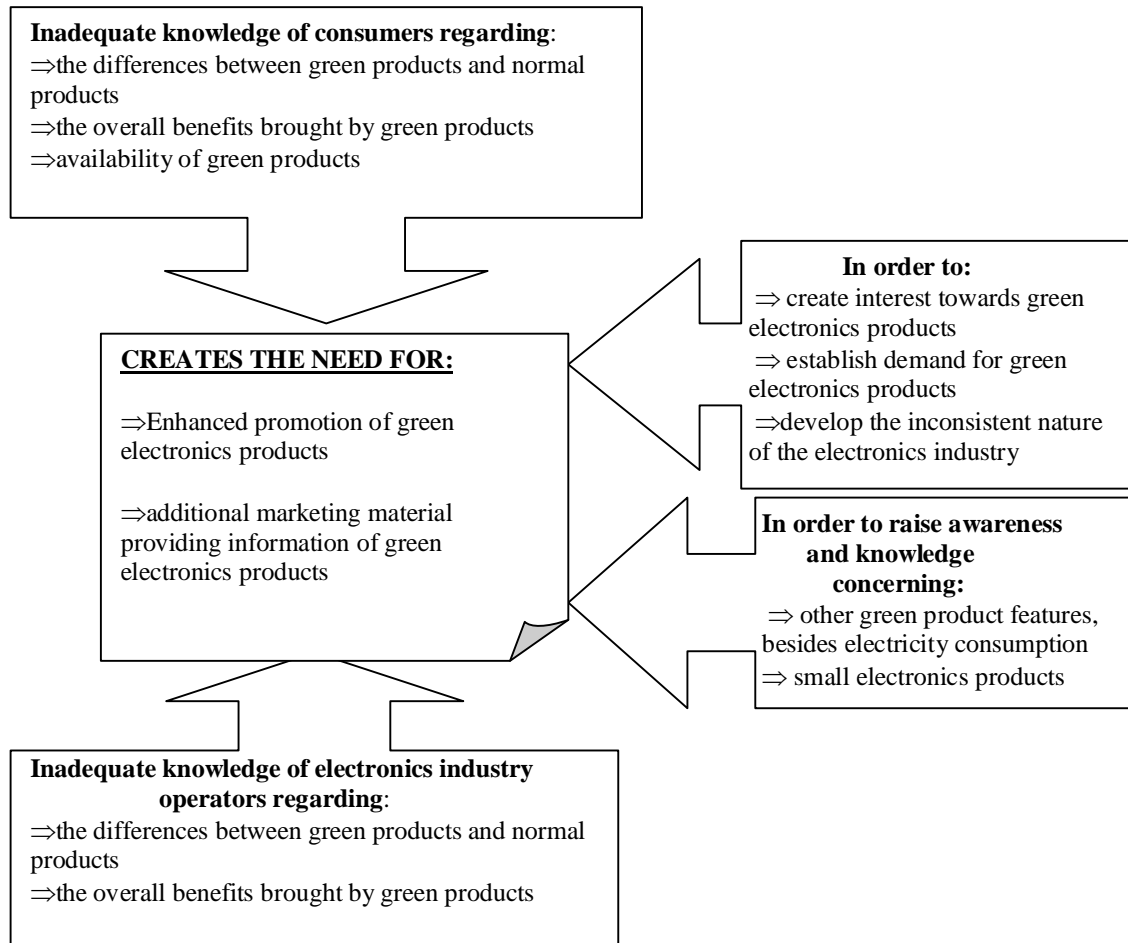


FIGURE 5. Reasons for enhancing the promotion of green products and increasing the amount of marketing material

First of all the respondents see that, consumers are not aware of the differences between normal electronic products and green products and most of all, they do not know the concrete benefits of green products that make them environmentally friendly in the first place. In fact, Heiskanen and Timonen establish that, many of the respondents taking part in their study experienced problems in choosing the environmentally sound product alternative. Lack of product information was the most frequently mentioned obstacle to

buying environmentally preferable products, supporting the above discussed impression of the respondents (Heiskanen & Timonen 1996, 45-52.)

Secondly, a few of the respondents specified that, every now and then, they as distributors and re-sellers feel a need to receive more product information from manufacturers, suppliers and importers in order to sell the products further more efficiently. In fact, a few of the respondents specifically mentioned they hope to receive more product information of green products, as there are insufficiencies in the amount of information provided by the manufacturers to the various value chain parties in terms of product related information.

Thirdly, the respondents believe that other product features supporting green values, besides energy efficiency, have potential among electronic products. However, in order to increase the interest of consumers towards for example, small electronic goods and other green features among products, it requires that these tangibles and attributes are brought to the attention of consumers and the benefits of these attributes are made concrete to people.

In spite of the amount and quality of promotional activities or the important values that the green products are assumed to be supporting, the respondents still feel that, when it comes down to making a purchase choice, the price of a product has the greatest influence on the decision-making process in the case of a majority of consumers. The research of Niva and Heiskanen (1996) concurs that, the most important factors affecting purchase decisions of consumers were the price and quality of a product thus, agreeing at least partly with the remarks of the respondents (Niva & Heiskanen 1996, 49.)

Furthermore, one of the respondents especially stated quite clearly that, he thinks that in the current world, the angle from which consumer masses and the society in general, view and appreciate the ecological aspects of products is wrong in terms of promoting sustainability. The perception among the respondents is that, as long as the appreciation of ecological values remains at the current level among the greater part of consumer masses, the position and pricing of green products in the industry of electronics is not changing. One of the respondents even stated that, as long as living in a monetary society,

he doubts the situation is ever going to change. However, Rissa (2001, 45) establishes that, the costs amounting during the use of a product are already often considered by demanding consumers to be more important than the original purchase price of that product. In fact, according to Rissa, the aspects of product durability and environmental friendliness are becoming increasingly meaningful competitive factors. Therefore, it appears there might be hope at sight.

The respondents' observations suggest that, there is lack of differentiation between green products and normal products, in the mainstream marketing material currently available in the market place. According to their impression, green products tend to remain in the shadows of the normal electronic products. The perceptions are also in accordance with the results of Niva and Heiskanen, as their study concluded that consumers are interested in information concerning green products but apparently, they feel that it is difficult to understand the environmental information available and as a result, many matters remain unclear to them. In addition, the results show that consumers feel there is not a sufficient amount of environmental information available among products in the first place, in the market place. As a result, consumers consider it hard to make choices supporting the environment based on poor information, without wondering whether the information provided is reliable (Niva & Heiskanen 1996, 1-2, 48-52.)

The common suggestion of the respondents is that, the marketing material and promotional activities of green electronic products need to be enhanced in order to build more awareness, create more interest and in the end, establish demand for the green products in various electronics product categories. Furthermore, the opinion of every respondent is that marketing and spreading information has a significant meaning in the attempt of changing the viewpoint of the masses, and developing the inconsistent nature characterizing the electronics industry, aspiring from the contradictive situation between ecological values and money. According to the respondents' opinion, increasing the promotional activities of green products would endorse the spread of information that would predictably help the process of making consumers realize and appreciate the ecological benefits of green products. Moreover, the prices of green products could possibly be raised in the future to a level that would be in accordance with the benefits they bring, if a change in consumer attitudes and purchase behaviour would occur.

The respondents see that, an efficient way to market green electronics would be to promote them as a special group of products along side with the use of so called, normal marketing tools such as, magazine and television advertisements and promotional pamphlets. The respondents have various ideas in terms of what other type of marketing activities could suite the purpose of promoting green products. One of the respondents mentioned that, a printed advert with information on green products, followed by a statement, advising consumers to look for additional information from the Internet, could be an efficient promotional combination. Another respondent suggested that, if green products would be tested in a credible media outlet by an objective counterparty, it would verify whether products that claim to be environmentally friendly truly live up to it and this could convince consumers of the benefits of green products and possibly motivate them to select a green product over other alternatives.

However, it was noted during a few of the respondents that the promotional activities are expensive and because of this fact, companies usually cannot afford to use every possible promotional tool or a mean in order to market their products. Overall, regardless of the marketing channel or promotional tools used, the main importance seems to be in providing consumers with product information, notify them of the general availability of green products and where they can buy green products. In addition, one of the respondents emphasized that it is essential to maintain the red thread through out the marketing material and promotional activities in order to maintain consistency in the messages. For the most parts, the above impressions of the respondents are in many ways similar with the notions made in the previous studies represented in chapter 1. As for example, the conclusions of Niva and Heiskanen state that, companies can affect the activities of consumers by increasing the benefits of information usage with campaigns and general communication, or making the purchase choice an easier process for consumers by increasing eco-labeling and providing other type of information regarding product feature (Niva & Heiskanen 1996, 1-2, 48-52.)

The most efficient manner to develop the category of green products, according to the respondents, is through a collaborative effort with various interest groups involved in the consumer electronics industry. It became evident, especially during the interviews of a

few of the respondents, that they hope there would be more co-operation and communication between the various value chain operators in the field of consumer electronics, as the perception is that it would help perform their work tasks better. Furthermore, the respondents see collaboration as a vital activity in order to share information and increase general level of knowledge concerning available green product options. After thinking the matter a little bit longer, the respondents noted that, since manufacturers have the necessary product information and knowledge required they have the best opportunity to trigger the development process of green products. Therefore, when thinking about the issue from a certain point of view, the respondents feel that, the market development of green products begins with the manufacturers.

Overall, the respondents see the future prospects of green products to be promising, as the shared impression and opinion is that the environmental values are just starting to get a better threshold in the industry of consumer electronics. The prediction of every respondent is that the revolution of green products is only at the beginning phase, as the interest in these types of products is predicted to be growing. Some of the interviewees have personally experienced a heated discussion over green products in their operational environments, among various colleagues. In addition, the respondents see that the rising price of electricity acts as an accelerator that can motivate consumers to search for energy efficient product solutions that additionally promote the concept of environmental sustainability.

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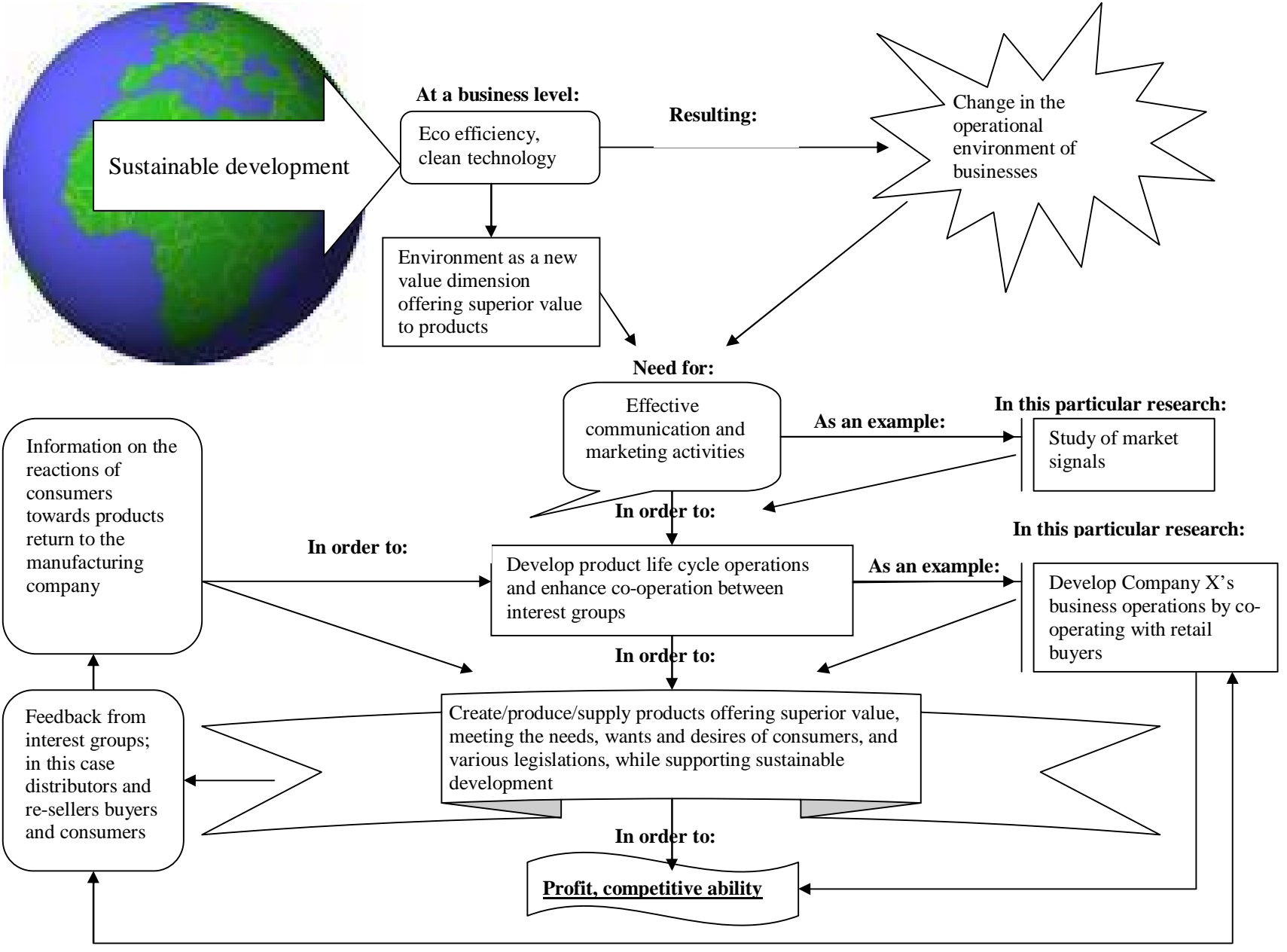
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Appendix 1. The relationship between the key concepts involved in the midst of the research



Appendix 2. The letter of approach to the respondents

Hei!

Nimeni on Anna Oksanen ja olen kansainvälisen liiketalouden opiskelija Jyväskylän ammattikorkeakoulusta, jossa olen parhaillaan tekemässä päättötyötäni liittyen ympäristöystävällisiin kulutuselektroniikkatuotteisiin. Kyseessä on laadullinen tutkimus, jota varten haluaisin haastatella alan ammattilaisia, kartuttaa heidän mielipiteitään sekä kokemuksiaan. Olen erityisen kiinnostunut kuulemaan ajatuksia liittyen vihreiden tuotteiden tämän hetkiseen kysyntään Suomen markkinoilla, tulevaisuuden näkymiin ja mahdollisiin kehitysideoihin. Toimeksiantajani on Company X nimellä toimiva kuluttajatuotteiden maahantuoja.

Toivoisin suuresti, että voisitte auttaa minua tämän asian suhteen ja haluaisitte ottaa osaa tutkimukseeni. Pyytäisin mahdollisuutta saapua haastattelemaan teitä aiheen tiimoilta, teille sopivana ajankohtana. Tämä olisi erityisen tärkeää minulle henkilökohtaisesti. Uskon että aiheeni on ajankohtainen sekä tärkeä ja toivon sen lopputuloksen tarjoavan hyödyllistä tietoa myös teille.

Kiitos jo etukäteen!

Ystävällisin terveisin,

Anna Oksanen

Appendix 3. Semi-structured interview questions

1. Ympäristöystävällisten kulutuselektronikkatuotteiden tämän hetkinen markkinatilanne Suomessa haastateltavien kokemuksen perusteella

1.1. Henkilökohtaisen kokemuksen perusteella, millaista on ollut kuluttajien *suhtautuminen* ympäristöystävällisempiä kulutuselektronikka tuotteita kohtaan lähivuosien aikana Suomen markkinoilla?

- Esimerkkejä?
- Onko kuluttajien suhtautuminen muuttunut lähivuosien aikana?
- Jos kyllä, miten se on näkynyt?

1.2. Kokemuksen perusteella, millainen on vihreiden tuotteiden tämän hetkinen *kysyntätilanne* Suomen markkinoilla?

- Kokemuksen perusteella millaiseksi koette kuluttajien *motivaation* löytää ympäristöystävällisempiä kulutuselektronikka tuotteita?
- Millaiseksi koette kuluttajien varsinaisen *ostohalukkuuden* vihreitä tuotteita kohtaan?

1.3. Oletteko henkilökohtaisen kokemuksen perusteella havainneet joitain tyypillisiä piirteitä kuluttajissa, jotka ovat etsineet ympäristöystävällisiä kulutuselektronikkatuotteita?

- Onko teidän mielestänne olemassa erikseen niin kutsuttua “ympäristötietoista kuluttajaa” ?
- Jos kyllä, miten kuvailisitte tällaista henkilöä?

1.4. Kokemuksen perusteella, millä tekijöillä on eniten vaikutusta kuluttajien ostopäätöksessä kun puhutaan kulutuselektronikkatuotteista?

- Kokemuksen mukaan, millä perusteella kuluttajat tekevät ostopäätöksensä niin kutsuttujen normaalien kulutuselektronikka tuotteiden ja ympäristöystävällisten kulutuselektronikkatuotteiden välillä?
- Miksi koette näin?

2. Mitä toimenpiteitä voitaisiin haastateltavien mielestä toteuttaa ympäristöystävällisten kulutuselektroniikkatuotteiden kehittämiseksi ja niiden kysynnän lisäämiseksi?

2.1. Millainen on ympäristöystävällisten tuotteiden tämän hetkinen *saatavuus* Suomen markkinoilla, teidän kokemuksenne perusteella?

- Mahdollisia kehitysideoita?

2.2. Mikä on mielipiteenne ympäristöystävällisiä kulutuselektroniikkatuotteita koskevasta informaatiotarjonnasta Suomen markkinoilla?

- Onko sitä tarpeeksi tarjolla kuluttajille?
- Jos kyllä, miksi koette näin/ miksi ei?

2.3. Miten kuvailisitte ympäristöystävällisten kulutuselektroniikkatuotteiden ja niin kutsuttujen normaalien kulutuselektroniikkatuotteiden suhdetta tämän hetkisillä markkinoilla?

- Onko ympäristöystävälliset elektroniikkatuotteet eroteltu kaupassa niin kutsutuista “normaaleista kulutuselektroniikkatuotteista”? Miten?
- Onko niiden eroavaisuuksista tarjolla tietoa kuluttajille?
- Voisiko jotain parantaa?

2.4. Oletteko kohdanneet haastavia tilanteita “vihreiden tuotteiden” osalta kun olette palvelleet kuluttajia?

- Minkälaisia haasteita?
- Onko kuluttajilla minkälaisia ajatuksia liittyen vihreisiin tuotteisiin?
- Mistä luulette sen johtuvan?

2.5. Kokemuksenne perusteella, mitä mahdollisia kehitysideoita teille tulee mieleen ympäristöystävällisiin kulutuselektroniikkatuotteisiin liittyen?

- Missä voisi olla parantamisen varaa jos mietitään tuotteiden arvoketjua? Miksi? Millä perusteella?

2.6. Henkilökohtaisen mielipiteenne mukaan, miten ennustaisitte ympäristöystävällisten kulutuselektroniikka tuotteiden tulevaisuuden markkinasuosiota Suomessa?

- Millä perusteella?
- Mitä edellyttäen?