



# Added Value of Environmentalism in the Printing Business

Master's Thesis  
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Forest Products Marketing

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ABSTRACT

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Tiivistelmä - Referat – Abstract <p>Environmental issues have become an important part of today's business. Some companies have made the decision to strive towards environmental friendliness of operation; others have decided to take a more reactive approach. Even though environmental issues have gotten much attention lately, the portion of green products out of total production is still very small.</p> <p>The purpose of this study is to find out using a single company case study if environmentalism adds value in the print business. From managerial perspective, the aim of the study is also to find out if the possible added value of environmentalism could be further enhanced. The main questions are: What are customers' main selection criteria for making purchasing decisions? In what respect are customers' purchasing decisions based on environmental values? Do customers feel that there is added value in environmentally friendly processes and materials? Data for the study is collected from thematic customer interviews, a newsletter survey and a literature review of previous research. Companies in the study include multinational, national and local ones. The study will use a mixed method approach with qualitative data from the interviews and quantitative data from the survey. By gathering data from two different sources with mainly qualitative and theory driven method of analysis, the reliability of the results is greater.</p> <p>Based on the results, environmental and sustainability issues are important issues for some customer companies in printing business, but not everyone wants to pay extra for environmental friendliness. Interestingly, there is clear evidence that also smaller companies are acknowledging the importance of environmental friendliness, so it is not only for large export-orineted companies. Some companies can be identified as proactively pursuing competitive advantages from sustainability and environmental friendliness. The results of the study are used to further develop the case company's environmental marketing, for example by developing environmental management.</p>			
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Tiivistelmä - Referat - Abstract <p>Ympäristöasiat ovat tärkeä osa nykypäivän liiketoimintaa. Osa yrityksistä on ottanut ennakoivan lähestymistavan ympäristöön, toisten lähestymistapa on neutraalimpi. Siitä huolimatta, että ympäristöasiat koetaan tänä päivänä tärkeiksi, on vihreiden tuotteiden osuus kokonaistuotannosta edelleen hyvin pieni.</p> <p>Tämän tutkimuksen tarkoituksena on selvittää tapaustutkimuksen avulla tuoko ympäristöystävällinen toiminta lisäarvoa liiketoimintaan painoalalla. Johtamisnäkökulmasta on myös tavoitteena selvittää, onko mahdollista lisäarvoa mahdollista kasvattaa. Tutkimuksen tärkeimmät kysymykset ovat: Mitkä ovat asiakkaiden tärkeimmät valintakriteerit ostopäätöstä tehdessä? Missä määrin ostopäätökset perustuvat ympäristöarvoihin? Kokevatko asiakkaat saavansa lisäarvoa ympäristöystävällisestä liiketoiminnasta? Tutkimuksen primääridata kerätään teemahaastatteluista, sähköisestä kyselystä sekä kirjallisuuskatsauksesta. Haastateltavien henkilöiden edustamat yritykset ovat kansainvälisiä, kotimaisia sekä paikallisia yrityksiä. Tutkimus yhdistää kvalitatiivista aineistoa haastatteluista sekä kvantitatiivista dataa kyselystä. Käytettäessä kahta aineistoa pääosin kvalitatiivisessa teoriavetoisessa tutkimusmenetelmässä, tulosten luotettavuus paranee.</p> <p>Tuloksista käy ilmi, että ympäristöasiat ovat tärkeitä osalle asiakkaista, mutta kaikki eivät ole valmiita maksamaan ympäristöystävällisyydestä. Myös pienet ja keskisuuret yritykset kokevat ympäristöasiat tärkeiksi, eli vastoin yleistä käsitystä ne eivät ole tärkeitä ainoastaan suurille vientiyrityksille. Kilpailuetuja on mahdollista saada ympäristöystävällisestä toiminnasta, kunhan strategia on tarkkaan laadittu. Tutkimuksen tuloksia käytetään kohdeyrityksen ympäristöjohtamisen ja muun vihreän markkinoinnin kehittämisessä.</p>			
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# 1 INTRODUCTION

## 1.1 BACKGROUND OF THE STUDY

From the 1960's onwards, businesses have become the subject of increasing environmental pressure to behave in an environmentally conscious way (Tilley, 1999). Among human activities that have a big impact on the environment, industrial activities are in the foreground (Tyteca, 1996). Examples of companies becoming greener can be found from almost every article concerning the relationship of the environment and business. However, if becoming greener does not have a positive effect on sales, companies should think twice about advertising these changes externally (Ginsberg & Bloom, 2004).

The scale and scope of human activities have in the past 50 years accelerated to the point that they now have worldwide consequences. It is said that the following 40 years from now are crucial and that we have to change even our basic economic activities if we want to avoid conducting irreversible damage to our planets ecological systems. Markets have always been dependent of nature and its ecosystems. As resources become scarcer, companies' strategies and competitive advantages will increasingly stem from environmentally friendly economic activity. (Hart, 1995)

Increasing levels of CO<sub>2</sub> and other greenhouse gases in the atmosphere will affect the global climate in the long run (Skog & Nicholson, 1998). In the case of companies not making their economic activities more sustainable, a company's stakeholders have the purchasing power to make corporations act sustainably (Hart, 1995). Russo & Fouts (1997) extended the idea of consumers' actions that can change the behaviour of companies to consider societal demands as a part of the company's external environment and suggested that this type of approach is a key factor when the society is demanding a cleaner environment. Living and



consumption habits have to change all over the world towards sustainable consuming and development. However, major changes in consumers' purchasing habits are still yet to come.

Results of a wide multi-country study conducted by McKinsey and Company in 2008 showed that 60% of business executives consider climate change issues when developing and marketing new products. In addition, a vast majority of these executives thought that climate issues are a strategically important challenge. Previous studies on environmental issues have showed that one of the main reasons why environmentally sustainable products are not bought is that they are perceived to be of lower quality and more expensive than conventional products (Pickett-Baker & Ozaki, 2008; D'Souza et al. 2007).

With increasing pressure from the company's stakeholders, especially customers, to consider the environment in actions businesses are developing completely new products classified as green products (D'Souza et al. 2007). Green products are ones that do not harm the environment as much as normal goods and do not contain any potentially harmful elements (Borin et al. 2011). Nevertheless, while most executives and over 75% of consumers report themselves as green citizens, green products account for less than four percent of the world's products (UNEP, 2005). One reason for the small share of green products out of total consumption is that businesses are having trouble in trying to predict customer demand towards green products. According to Borin et al. (2011) despite the growing trends, recent studies show signs of a potential limit to the growth of the green industry. A major challenge for the green industry is now to show that green products can be as good as or even better than the non-green products and they can be purchased at a reasonable price, which could help in making green consumption a mainstream issue.

Companies have the power to change the perceptions of consumer's, which could influence their perceptions of quality and affect product image and company reputation (Willmott, 2003). Corporate social responsibility and socially responsible branding are becoming more

important in times when surveys show that consumers are becoming more and more cynical about companies' activities and especially those of multinational companies (Willmott, 2003).

## 1.2 SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

The definition of sustainable development states that environmental resources and the planet's ability to absorb the effects of human actions are limited. Therefore, the use of resources, directions of investments and technological innovations all have to take present and future needs into account. (Masurel, 2006)

Different forms of capital are used to describe sustainability. Included are manufactured capital (produced goods), human capital (knowledge and skills), natural capital (natural resources) and social capital (relationships). Sustainability is divided into weak and strong sustainability. The first assumes that economic, environmental and social resources are somewhat complementary and therefore there are limits to their substitutability. The latter assumes that there is unlimited substitutability between these three factors. A company's sustainability can be measured by its performance economically, environmentally or socially. The level of an individual company's sustainability is measured through its operation with manufactured, natural, human and social capital with environmental performance indicators. Therefore, actions have to consider all of the three dimensions of company performance at the same time in order to be sustainable. (Figge & Hahn, 2002)

Sustainable development is becoming a more generally accepted and executed concept. According to Tilley (1999), it is now understood that resources cannot be extracted endlessly from the environment. Therefore, the industrial system must adopt a more

sustainable approach where the system loop is closed so that waste materials from one process would end up as the input materials in another process, she continues.

### 1.3 CARBON STORAGE THROUGH FORESTS AND FOREST PRODUCTS

Increasing the amount of forest areas and preserving current forests are good ways of mitigating atmospheric carbon, according to Karjalainen et al. (1994). In addition to providing raw materials for industries, forests recycle carbon back to the atmosphere through the decay of products. Thus, carbon is stored in forests and wood products while the forests are regrowing, Karjalainen et al. (1994), add. From a Total Quality Management approach, businesses should not produce waste in any form, be it time, effort, pollution or materials. From this perspective, emissions such as CO<sub>2</sub> can also be seen as waste, which has to be minimized, according to Hart (1995). Some of the sources of CO<sub>2</sub>, such as animal respiration and the decay of biomass are nonhuman and therefore can only be restricted by limiting their amount. Man made carbon emissions can be limited by storing them into sustainably grown forests as well as wood and paper products and (Karjalainen et al., 1994; Skog & Nicholson, 1998). Currently there are large amounts of carbon stored in forests, wood and paper products, dumps and landfills and the size of these carbon pools is continuously increasing. In addition, the concentration of CO<sub>2</sub> in forest products has shifted from wood products to a mix of products such as wood products and different types of paper products (Skog & Nicholson, 1998).

The manufacturing of forest products makes it possible to store carbon into products, which are outside of the forest ecosystem itself, and therefore the carbon storage capacity of the forest ecosystem is maintained (Karjalainen et al. 1994). Sustainable forestry can, according to Perez-Garcia et al. (2005), lead to a noteworthy reduction of atmospheric carbon by producing forest products, which displace fossil fuel-intensive products. Their study also found out that shorter harvesting cycles produced more forest products earlier, which

helped in substituting fuel-intensive products sooner. The cycle of carbon and its storage into wood and paper products is presented in figure 1, below.

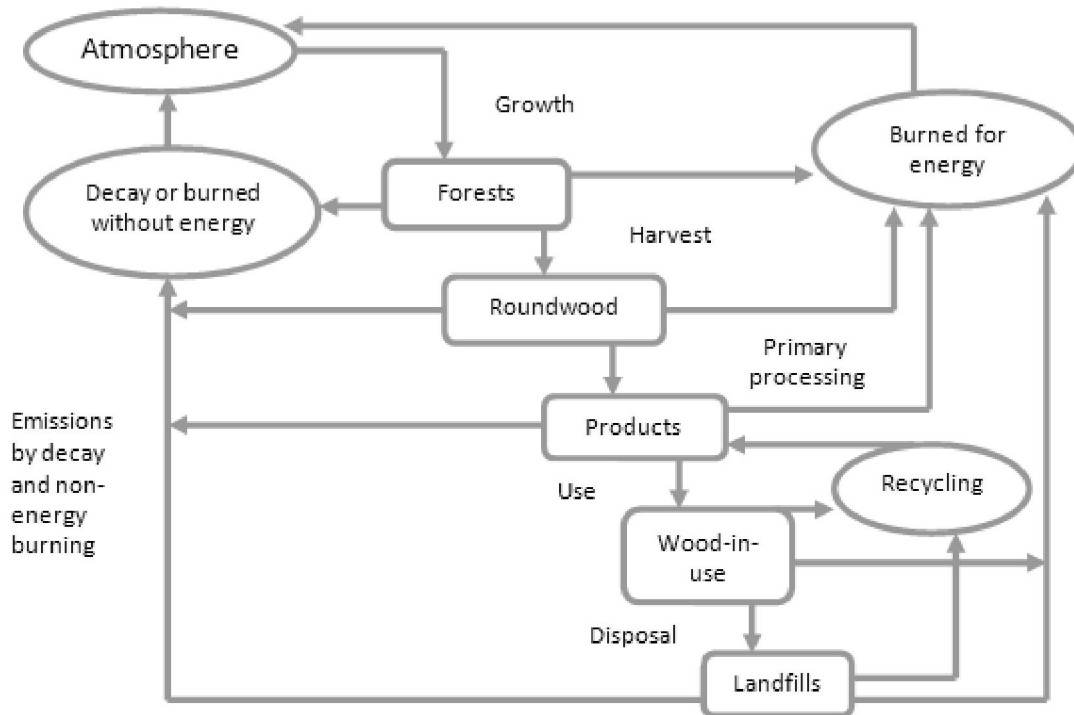


Figure 1. Cycling of carbon through wood and paper products. (Skog & Nicholson, 1998)

The lines in figure 1, above, represent carbon where the direction of the arrow points to the direction in which the carbon is transferred. The boxes represent storages of carbon and the circles represent processes. When a product reaches the end of its life cycle, it can be recycled, burned to produce energy or put in landfills. In the case of burning forest products for energy, the stored carbon is released immediately (Karjalainen et al. 1994) into the atmosphere. In order to minimize the emission of greenhouse gases, forest products should therefore be recycled rather than burned to close the loop of carbon returning to the atmosphere. When burning forest products to create energy, the energy can, however, be used to substitute the use of fossil fuels (Karjalainen et al. 1994).

Forest products can be divided into four groups according to the length of their lifespan. The group of short lifespan products consists of newsprint, some packaging papers, paperboard, printing and writing paper. Medium-short lifespan products include sturdier versions of the same products. Medium-long and long lifespan product categories contain sawn timber and plywood products depending on their specifications. In order to achieve the highest amount of carbon stored into forest products, the amount of longer lifespan products should be maximized (Karjalainen et al. 1994).

As forests are turned into products, carbon pools develop. These pools more than offset the carbon emissions that come from harvesting and manufacturing (Perez-Garcia et al. 2005). The production and use of wood products instead of fossil fuel-intensive products more than compensates the amount of carbon stored in the forests. Even for countries that possess large forest resources, the capture of carbon in the forest sector is not a sustainable option in the long run because the carbon will saturate the forest ecosystem itself, and the storages that link to it. Capture of carbon can therefore be seen as a temporary solution for us until proper technology for the reduction of carbon emissions is found. (Karjalainen et al., 1994)

#### 1.4 MOTIVATION FOR THE STUDY

The rise of digital marketing industry presents true challenge for the traditional printing industry. "Printing, for the first time in 500 years, is facing real competition," says Gareth Ward, printing expert and editor of The Print Business magazine. The Internet has provided an alternative to printing and now printers have to win back the customers that have experimented with alternative and less expensive means of marketing. "Printers must show that print has strength, that it is appreciated by end users and by rethinking how printed products function, that print has real clout", adds Mr. Ward.

The printing industry uses masses of paper, ink and various chemicals and the process is quite energy intensive. Pollution from the industry affects our planets air, water and soil (Masurel, 2006). The digital printing industry needs new ways of blending products and services to make the most innovative combinations that fascinate customers repeatedly. A possible solution could be an R&D unit cooperating and sharing information between stakeholders or by emphasizing environmental issues and turning them into a competitive advantage. Knowledge of customer values is needed to deliver products that are appreciated by customers. In addition, product and service mix is needed with a marketing strategy that suits the company's corporate strategy.

The core question is, can the printing business add value to the customer by emphasizing environmental aspects? Why would a business-to-business (B-to-B) customer procure products with environmental aspects and what criteria would customers be emphasizing? Because of current economic situation and the rising awareness of environmental issues, the printing business is currently facing many challenges. If it could be proven that customers and end users really do appreciate environmental aspects and are also willing to pay more for some product attributes associated with environmental friendliness, then environmentalism would add value. A printing company could become known as an environmentally alternative by differentiating itself from competitors with environmentally friendly product substitutes and environmental processes. However, a strategic move like this requires new and innovative products, processes and good business hunch. In-depth understanding of customer perceptions and expectations can minimize the risks of developing environmentally friendly business.

Green products have a higher environmental profile but often also a higher price. Clearly, purchase decisions of green products have to be backed up by customer company's environmental values and also willingness-to-pay extra for environmentalism. Some

customers want to purchase environmentally friendly products because it supports their core business values and they want to portray themselves as genuinely environmentally aware companies. In addition, many of the companies that have a proactive environmental marketing strategy operate dominantly in B-to-C markets, and whether or not environmental issues will become as common in the B-to-B markets in the future, it remains to be seen.

One solution to add value to environmentally friendly digital printing products could be the use of materials such as Re-board. It is a patented paper-based sandwich board, which is manufactured in Sweden by Design Force AB, a company owned by Stora Enso Ventures. Re-board is a strong, lightweight board composed of recycled paper and by only using water based adhesives. After use, it can be recycled just as paper in normal paper recycling streams. According to its manufacturer, Re-board is the most eco-friendly material of its kind and it is the first product of its kind to measure its CO<sub>2</sub> emissions. Production of one square meter of the 16mm thick board produces CO<sub>2</sub> emissions of 2 kilograms ([www.designforce.se](http://www.designforce.se)). Re-board is an example of a product, which promotes sustainability because it stores CO<sub>2</sub> and helps in enlarging the carbon pool. Therefore, the demand of green products, such as Re-board, is connected to the promotion of sustainable development. Furthermore, research is needed so that stickers and others environmentally unfriendly products could be substituted for environmentally friendly ones in the future. Innovation has to be a continuous process so that competitive advantages acquired through innovations are not lost.

## 2 PURPOSE AND IMPLEMENTATION OF THE STUDY

### 2.1 PURPOSE OF THE STUDY

The purpose of this study is to find out what kind of environmental incentives there are affecting B-to-B customers' purchasing decisions in digital printing business. Using a case study the aim is to analyse whether the printing business add value to the customer by emphasizing environmental aspects, and in what ways? The aim of the study is to find out if customer companies' environmental values also affect their purchasing decisions, and if they are intentionally selecting recycled or recyclable materials to highlight their environmental values to their own customers. Moreover, two practical questions arise. How to use the information on customer values to develop environmental marketing? What is the benefit of environmentalism and can it be further enhanced?

This study has four research questions and the results of these will be discussed in chapter 6. The research questions used in this study in the digital printing business context are:

1. What are the B-to-B customers' main selection criteria for product and service decisions?
2. In what respect are customers purchasing decisions based on their environmental values?
3. What positive impacts are associated with environmental friendliness of operations?
4. Do customers try to emphasize their environmental values to their own customer's through purchasing decisions?

Based on these research questions, a more thorough thematic interview guide will be constructed. Nine theme interviews were conducted to get sufficient information on the customers' environmental values. In addition, a short survey of 5 questions was sent to recipients of a customer newsletter. Analysing these questions will also give a certain basic knowledge on the environmental values of the case company's stakeholders.



## 2.2 IMPLEMENTATION OF THE STUDY

In this study there are five research stages. These are:

### 1. Problem definition

This is the part of the study where the basis of the study forms. The actual research problem is identified and research questions are made. Purpose of the study is presented to give a clear idea of the study's aims and goals.

### 2. Theoretical background

The purpose of this step is to familiarize with previous studies and literature in the same field to form the theoretical background of the study. The theoretical frame of reference and its operationalization will be used to link the theory into reality.

### 3. Data acquisition

Implementation of the questionnaire is done by interviewing 9 B-to-B customers. In addition, a short survey of 5 questions will be sent to circa 1500 recipients. The interviews will be recorded in-depth interviews of 15-30 minutes and with the mixed data, certain generalizations can be made from the collected data.

### 4. Processing of the data

One of the most important parts of the study is the results. Also, great importance is put on the way the collected data is analyzed. The data collected in the study is both qualitative and quantitative, which helps to form a better understanding of the phenomena. An

analysis of mixed data helps in defining empirically the why and how questions of decision-making.

## 5. Conclusions, discussion and implications.

Conclusions will be made and the original research questions will be answered. Conclusions will be made based on the existing knowledge of previous literature and research combined with the in-depth knowledge brought up by the theme interviews and from the answers of the stakeholder survey. This chapter will give concrete ideas in how to develop green marketing of products and services.

### 3 THEORETICAL BACKGROUND OF THE STUDY

#### 3.1 GREEN MARKETING

The idea of marketing is to satisfy the need of customers in a profitable way. Environmental or green marketing fulfils these needs and thrives towards sustainable development and satisfaction of a larger group of stakeholders (Kärnä et al. 2001). Green marketing refers to marketing activities, which aim at making a company's actions suitable or even beneficial for the environment and the society (Banyte et al. 2010). Green markets are growing continuously and, according to Dangelico & Pujari (2010); they are likely to get bigger in the future. In addition, the rise of ethical consumerism puts pressure on companies to act more sustainably socially and ethically (Kujala et al. 2011). Marketers face continuing challenges in addressing sustainability issues to attract, sustain and satisfy customers (Dangelico & Pujari, 2010). Results found by D'Souza et al. (2007) indicate that people committed to the environment were more likely to purchase products based on their environmental aspects rather than just the price.

Businesses as well as consumers have become concerned about the environment and the future of our planet. Environmental actions are therefore getting more and more attention in today's society, which has helped in the evolution of green marketing (Vaccaro, 2009). Companies in nearly every field of business have started to integrate environmental issues into their product, process and service development (Ginsberg & Bloom, 2004). B-to-B green marketing includes activities such as product design, manufacturing process, packaging, recycling and marketing communication (Vaccaro, 2009).

From an economic point of view, a company's main reason to produce environmentally friendly products is to obtain maximum profit with their sales (Bovea & Vidal, 2004). They continue that the internal costs generated by the company must match the customer's

willingness-to-pay and that the external costs of production are adopted by the society. From a society's point of view, the key factor in producing environmentally friendly products is to minimize the external costs or in other words, environmental impacts (Bovea & Vidal, 2004).

When a company is motivated to develop an environmental marketing strategy, both internal and external marketing are needed in order for the strategy to be successfully implemented (Sharma et al. 2010). External marketing means actions that are done outside of the firm. Internal marketing refers to the alterations inside a company that a change in its marketing strategy concerns. The changes are usually related to communications so that the new strategy is deployed successfully (Sharma et al. 2010). Internal marketing is especially important when new ways of working are introduced. However, internal resistance has often been around and it is an issue for many companies (Peattie & Crane, 2005). Therefore, whatever the chosen corporate strategy is, it is important to communicate with company staff so that everyone understands the changes and why they are done to minimize the resistance.

In order for green marketing to be sustainable, it should also include non-purchase behaviour such as product use, sharing, maintenance, disposal and take-back (Peattie & Crane, 2005). At the core of environmental marketing planning is the fact that environmental issues are emphasized in product and customer decisions and that the companies' strengths are used as a competitive advantage (Kärnä et al. 2001). However, by a strict definition no product is sustainable or green because every product has negative environmental impacts at some point of its life cycle (Pickett-Baker & Ozaki, 2008). Companies aiming towards environmentally aware action should keep in mind that they should not abandon their duty towards economic sustainability.

Reduction of emissions increases efficiency and saves money (Hart, 1996). This kind of environmentally wise activity may give companies a cost advantage and can help them in becoming market leaders. Environmental regulation, which leads to lower emissions, is thought to improve competitiveness by encouraging towards efficiency and innovation (Hart et al. 1996). A more recent study by Berger et al. (2007) showed that actions towards environmental friendliness are more often fostered by a mix of market-driven product innovation and regulation.

Environmental knowledge translates to what the customers know about the environment and what kind of beliefs they have on key environmental impacts. This information forms the basis of environmental awareness and beliefs (D'Souza et al. 2007). Customers who are aware of environmental problems are also more likely to purchase green products. Environmental actions such as recycling are often connected to environmental friendliness. However, the recycling process itself does not necessarily present actual environmental benefit. Guagnano (2001) states that without a market for the recycled materials, there is no environmental benefit. Therefore, unless the waste is converted into new products purchased by customers, recycling presents no real environmental advantages.

The Internet has revolutionized the whole area of marketing and nowadays it is possible to promote products in an even more environmentally friendly way. Companies can nowadays use recycled materials, digital media and other environmentally friendlier means to market their products. When designing and operationalizing marketing communication B-to-B firms should underline how well the product is compatible with the customers' green values and how the product offers relative advantage because of its characteristics. A successful green marketing strategy and relative advantage of products will lead to long-term financial performance, which will lead to higher market share and higher profitability.

### 3.1.1 REACTIVE GREEN MARKETING STRATEGY

Green marketing strategy can be divided into proactive and reactive strategies. (Vaccaro, 2009) Reactive green marketing strategies happen when companies respond to actions and changes as they happen elsewhere. It is not costly to operationalize and it is low in risk. It also has a low level of organizational commitment and it has a short-term orientation (Menon et al. 1999). A reactive green marketing strategy is seen as a defensive strategy and in its simplest form; it means that companies comply with the changing regulations and laws of the society (Kärnä et al. 2001). In addition, in a reactive green marketing approach the environment is only considered as a secondary factor and it can be examined indirectly when it affects the companies' strategic variables (Noci & Verganti, 1999).

Most studies concerning environmental product innovation focus on large companies. However, environmental issues should affect companies of all sizes. The executives of small and medium sized companies (SMEs) sometimes think that they can rely on reactive green marketing actions because of the flexibility, when it comes to environmental product innovation issues. However, even if small companies have limited infrastructural and financial resources, they should not ignore green product and process development. (Noci & Verganti, 1999)

### 3.1.2 PROACTIVE GREEN MARKETING STRATEGY

A proactive green marketing strategy means that companies respond to external threats before they are forced to. Company size has a big influence on how environmental issues affect the company's actions. In general, big companies are expected to act in an environmentally friendly way, whereas smaller companies tend to have more freedom in environmental issues. A proactive green marketing strategy requires greater resources and

more organizational commitment than a reactive strategy needs. According to results by Dangelico & Pujari, 2010, a company's main driver of green product development is the personal commitment towards environmentalism of the top management. In an ideal situation, a proactive green marketing strategy can help the company to promote sustainable development (Vaccaro, 2009).

According to results found from the forest industry by Kärnä et al. (2001), when companies develop successful proactive green marketing strategies they can also create sustainable competitive advantages. In a proactive green marketing strategy, the environment is considered as a major strategic challenge (Noci & Verganti, 1999). Usually, it is thought that companies which produce and market commodity products often tend to adopt reactive green marketing strategies and companies that produce high-end or custom-made products often adopt a more strategic and proactive green marketing strategy (Kärnä et al. 2001).

Vaccaro (2009) states that B-to-B companies, which promote proactive green marketing strategies, are more likely to achieve long-term competitive advantage and produce ecological sustainability. Proactive green marketing is bound to increase the rate of adoption for new products, services and processes and to promote sustainable development. According to results by Kärnä, et al. (2001) forest industry companies that promote proactive green marketing strategies are the most successful group to adopt innovative green marketing strategies and to look for competitive advantages from environmental friendliness. However, according to Masurel (2006), introduction of proactive environmental strategies in SMEs is problematic since they do not necessarily possess the skills or resources needed and such changes in corporate strategy cannot always be justified by economic or competitive reasons. In such a situation, external stakeholders of the company can be of value since they can provide resources, involve in cooperation and help in introducing environmental innovations (Masurel, 2006).

However, just because some managers are environmentally aware and change their companies' way of behaviour it does not mean that governmental balancing should be abandoned. Regulative framework from the government is needed to help more traditional managers and companies in becoming environmentally friendly (Kärnä et al., 2001). Their study shows that the forest industry companies, which have already in the 1990s promoted green values in their marketing, are actually the forerunners of sustainable development within their industry, and therefore were ahead of governmental guidance and their competitors.

In conclusion, according to Vaccaro (2009), it can be said that correctly implemented proactive B-to-B green marketing strategies may lead to long-term financial benefits because of competitive advantage, superior product differentiation and customer loyalty, lower costs, enhanced corporate reputation, greater R&D support and more ecological sustainability. Furthermore, when aiming towards sustainability, companies should devote in reducing over-production. This would lead to a decreased need for disposal and thus to a more sustainable world (Sharma et al. 2010). These authors also suggest that companies should develop products that can be reused and repaired so that the need for recycling is reduced.

Proactive and reactive green marketing strategies can thus be seen as opposites, indicated in the continuum in figure 2, where on the other end is reactive green marketing strategy with continuous innovation and on the other is proactive green marketing strategy with discontinuous innovation.

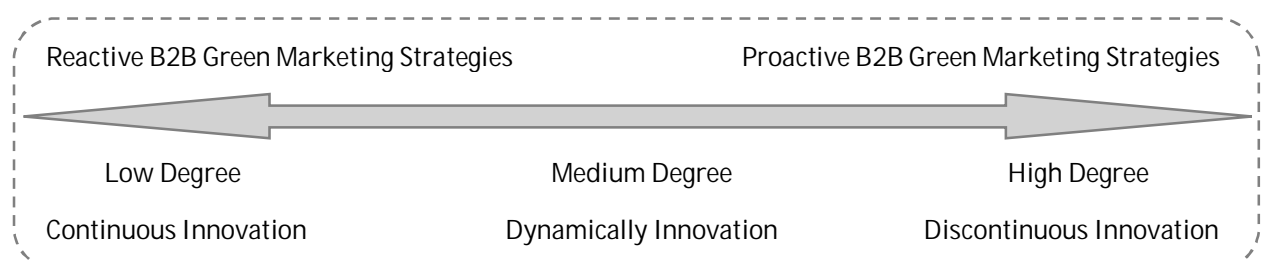




Figure 2. Continuum of reactive and proactive green marketing strategies. Source: Vaccaro, 2009

According to Vaccaro (2009), innovation can be on one end continuous, dynamically continuous or discontinuous on the other end of the continuum. A low degree of innovation is also referred to as continuous innovation. In this approach, small changes are made to existing products or services. These changes in design can only provide short-term advantages, are low in risk and require only small changes in the customer's behaviour. A typical example of low degree innovation is second-generation products. Medium degree innovation is applied to existing product categories but in a way, that requires changes in customer behaviour. On the other end of the continuum is discontinuous innovation, achievements that require big changes in customer behaviour and may take decades to diffuse. When a company introduces a thoroughly different process, product or service that has great environmental benefits, the level of innovation would be dynamically continuous or discontinuous (Vaccaro, 2009).

### 3.2 RESOURCE BASED VIEW

The environmental friendliness goes beyond marketing activities also to the firm level. The resource-based view (RBV) is a way to define what a company has the ability to do and what it has the opportunity to do. This is done by finding out ways for a company to create value for customers while managing uncertainties of markets (Srivastava et al. 2001). According to Hart (1995), the basic resource characteristics that provide sustainable competitive advantage for a company are that the resources must be of value, difficult to acquire, rare, difficult to transfer or trade and difficult to replicate. Simpson et al. (2004) state that the issues, which benefit the customer, can also lead to a competitive advantage. Hart (1995) stresses the importance of the inimitability of the resources that provide the capabilities for the competitive advantage. As resources are becoming scarcer and therefore more expensive, companies that manage their resources well are likely to gain competitive

advantage in the long run and therefore efficient resource use is becoming an important issue for both environmental and economic reasons (Michaud & Llerena, 2006). Some companies have acknowledged the benefits they could achieve by embracing pro-environmental actions (Tytca, 1996).

For a resource to be of value, it must be a part of the company's competitive advantage and not be easily acquired through alternative means. Rare resources are ones that are not widely distributed and ones closely linked to certain organizations making them difficult to copy or trade, such as a company's brand. Hart (1995) and Russo & Fouts (1997) also note that even though physical or financial resources might produce competitive advantages, the lead is often brief because these kinds of resources are probably also available to competitors or market entrants.

In the RBV theory, the company's resources are divided into tangible and intangible resources. The former consists of plant, equipment, cash, inventory and raw materials. Intangible resources consist of reputation (positive or negative), technology, patents, trademarks, human resources and other production factors. It is the company's intangible resources that allow the company to earn profits over the profit of its tangible assets (Konar & Cohen, 2001; Russo & Fouts, 1997). Since these resources are not productive on their own it is up to the company's managerial and organizational capabilities on how it decides to manage these resources. According to Hart (1995), if a company makes an early large-scale move it has the opportunity to create new standards or get a head start from competitors and acquire access to critical raw materials, locations, production capacity or customers.

In their 1994 book, Hamel & Prahalad introduce the term "Competing for the future". According to their view, in addition to being concerned about profitability and growth in the short and medium term, companies must acknowledge their position in the future and their forthcoming sources of competitive advantage. Moreover, this kind of approach requires a

solid strategy on how the company will face competition when its current strategy or competitive advantage is copied or outdated.

As companies develop their environmental policies, they should also develop reputation for the policies since reputation itself is a source of competitive advantage (Russo & Fouts, 1997). They add that environmental reputation can only be built on top of an overall reputation of quality. However, once gained environmental quality is in itself a valuable, inimitable resource.

According to Konar & Cohen (2001), the company's intangible assets can also be a disadvantage that lowers the earning power of the tangible assets of the company, for example, negative reputation. Companies that have better environmental reputation often also have intangible assets of more value, they add. According to Srivastava et al. (2001), addressing of RBV attributes to marketing is assisted greatly when resources are found that are generated through marketing activities and are therefore marketing specific as well as difficult to imitate.

In his studies, Hart (1995) said that the natural resource-based view could be used to create a sustainable competitive advantage if resources that are not easily imitated by competitors support the skills creating the advantage. This is why skilled workers are valuable for a company because skills cannot be imitated or bought, and for this reason, it is advisable for companies to pay better than average salaries for employees.

The company's environmental strategies (pollution prevention, product stewardship and sustainable development) are interconnected (Figure 3). The strategies are path dependant but also embedded. A company should therefore first adopt a pollution prevention strategy before enacting in a product stewardship strategy. However, actions done for environmentalism are also embedded because of their potential synergic advantages.

Therefore, environmental performance should be planned through simultaneous pollution prevention and product stewardship strategies, just as product development is enhanced by redesigning products and by rethinking the manufacturing process at the same time. (Hart, 1995)

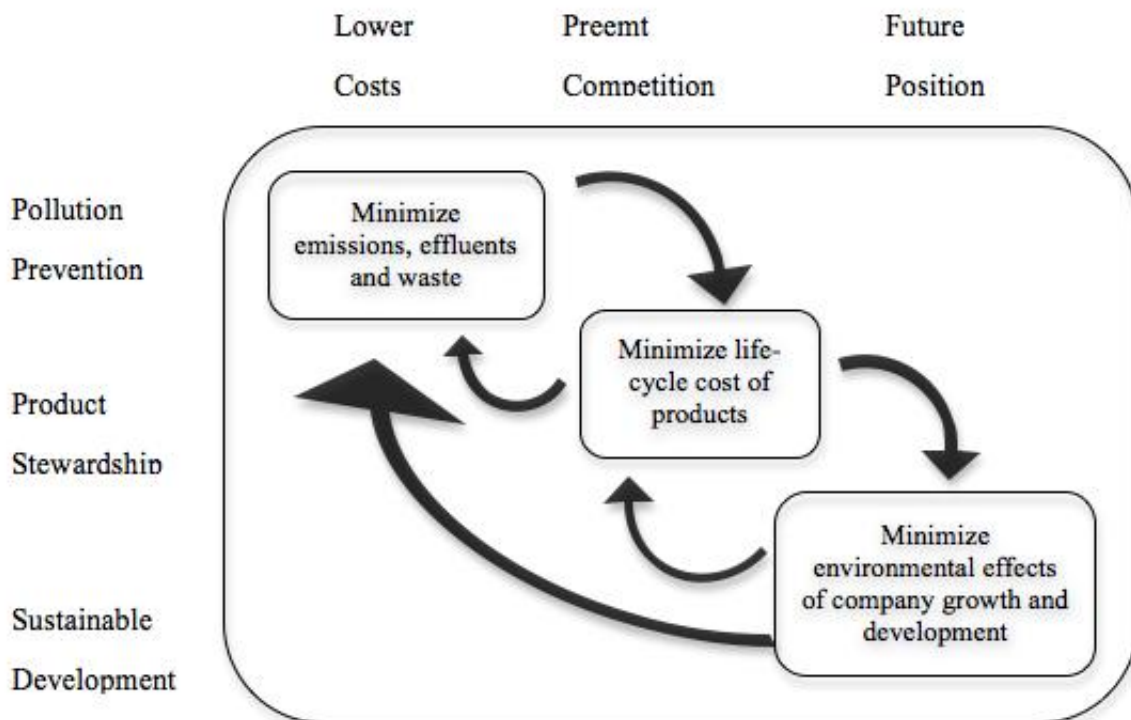


Figure 3. Interconnectedness of company's environmental strategies. Source: Hart (1995).

According to Hart (1995), companies should begin the implementation of their environmental strategy by pollution prevention means, which have a cost lowering effect. This is done by minimizing emissions, effluents and waste. The next stage is to get ahead of competitors by minimizing product costs. And to secure the future position of the company, the environmental effects of the company's growth and development should be minimized. As stated before, these actions can be done in part at the same time and they all effect each other so that the process is continuous.

Marketing specific resources are divided into two groups: relational and intellectual (Srivastava et al. 2001). Relational market-based assets are relationships, which are acquired through trust, commitment, interaction and reputation. There is potential for every organization to develop relationships with its customers. These relationships are difficult for competitors to imitate (Srivastava et al. 2001). They continue that relational resources are intangible, difficult to measure and available to the company, instead of owned. A study concerning large traded firms belonging to the S&P 500 index, conducted by Konar & Cohen (2001), concluded that a company's poor environmental performance has a significant negative consequence on the intangible asset value of the company.

According to Srivastava et al. (2001), intellectual market-based assets are different types of information a company possesses about its competitors. Results of their study show that business strategy involves selecting market segments, developing certain offerings and organizing its resources in order to build and deliver these offerings. For this reason, businesses need to invest a considerable amount of time, money and energy to build sufficient customer knowledge. The process of creating customer value via market-based processes is illustrated in figure 4, below.

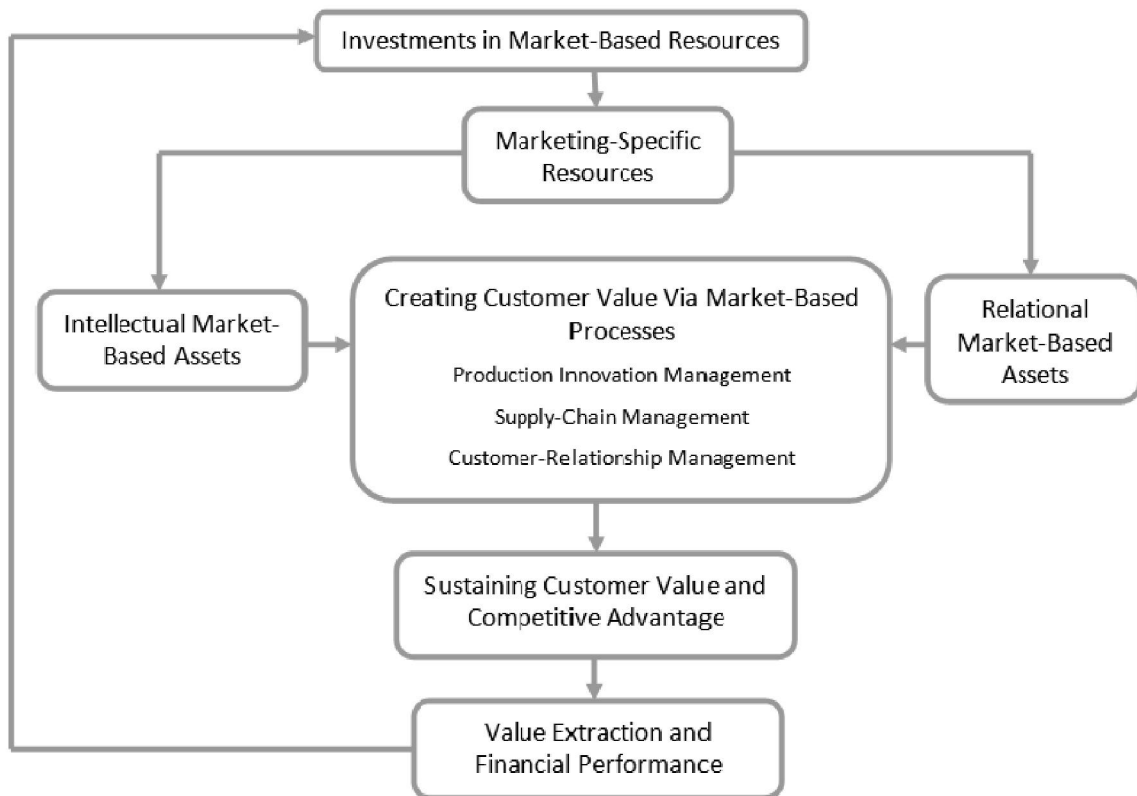


Figure 4. The model of creating customer value. Source: Srivastava et al. 2001

In the model of creating customer value (figure 4), Srivastava et al. (2001) propose that market-based processes consist of production innovation management, supply-chain management and customer relationship management. By managing these processes well, it is possible for a company to create customer value, which can be used to create competitive advantage, and to strive to financial performance. The additional resources can then be invested to create more value for the customer.

### 3.3 CORPORATE SOCIAL RESPONSIBILITY

Corporate voluntary action towards a greener planet is called corporate responsibility (CR) or corporate social responsibility (CSR). Socially responsible behaviour is considered to include different aspects from treating employees fairly and behaving ethically by supporting non-profit organizations, minimizing damage to the environment, practicing corporate philanthropy and claiming responsibility of the results of human action (Banyte et al. 2010; Mohr & Webb, 2005; Wang & Li, 2008). The roots of CSR go as far back as to early twentieth century when theologians and thinkers proposed to apply religious principles to business activities (Lantos, 2001).

Corporate social responsibility is divided into ethical, altruistic and strategic CSR. Ethical CSR is defined to be actions that go beyond the company's legal objectives to prevent harm to the society even if business would not benefit from it. This sort of action is usually expected from companies and therefore there is nothing special about this sort of approach. Altruistic CSR is defined as actions that contribute to the common good even at the expense of business. This sort of action, however, goes beyond the company's suitable actions no matter how noble they might seem. Strategic CSR on the other hand is actions, which create win-win situations for the company and its stakeholders. It should be noted that even if investments towards strategic CSR can bring financial benefit, these investments can also go overboard. Thus, there is always an optimal level of money spent to develop CSR strategies. (Lantos, 2001)

Cronin et al. (2011) state that the belief that organizations should do business further than just for profit is becoming more common. According to Kleindorfer et al. (2005), companies are expected, in general, to include people and the planet in their operations management. Companies are expected to invest in sustainable technologies, operations and supply chains because: the costs of materials and energy are going to rise, public pressure for environmental actions continues to increase, increasing awareness of sustainable development can boost demand, and because consumers' growing antipathy to globalization is leading to a growing demand for green performance. According to Pelozo &

Shang (2011), customers can be divided into self-oriented ones who have an egoistic view of the world and other-oriented ones who are concerned of the well being of others and the nature. However, as pointed out by Peattie & Crane (2005), resolving the environmental crisis created by continuous and unsustainable consumption by more consumption is a paradox.

Peloza & Shang (2011) divide CSR activities into three groups: philanthropy, business-related & product-related practices. They state that CSR activities have the potential to strengthen relationships between companies and stakeholders. Out of different CSR activities, according to Peloza & Shang (2011), philanthropy is the most common one. Philanthropy can be achieved through donations, which are tied to sales, direct donations not tied to sales, support for charities and different kinds of community involvement activities. CSR in the form of product features, such as less pollutants or biodegradability has the potential to serve the highest level of consumer value, according to Peloza & Shang (2011). In addition, if a firm acknowledges environmental issues, customers who buy their products can feel like responsible citizens who define themselves to other people as environmentally conscious citizens, they add.

According to Peloza & Shang (2011), CSR is sometimes difficult to define and not all CSR activities are seen as identically positive or even positive at all by some stakeholders. In fact, as stated by Willmott (2003), there is evidence that sometimes CSR is bad either strategically or financially. Devinney (2009) continues by stating that like any other organizational instrument, CSR is neutral until interested stakeholders use it in a particular context. He continues by arguing that there is no indication that CSR has a clear relationship to company performance or firm value and that the link between CSR activities and firm performance is not always completely understood. In addition, he claims that since the link is not clear to us, it can be that firm performance drives CSR activities instead of CSR activities driving performance. It is clear that CSR is an activity that should not be carried out just because the management feels like it could add profits. CSR activities can go wrong and



if a company indulges in greenwashing, the results for company value and profits will be negative. However, if performed properly and thoroughly, CSR activities can be good for business and company image. Corporate responsibility activities should be thought of as a part of the company's brand, which will be discussed in chapter 3.3.3.

Aligned with to the CSR theory, companies should have a stakeholder theory approach to business management instead of a shareholder theory approach. It means that companies should take every one of their stakeholders into account in a more balanced way when making decisions whether or not they have a straight connection to the company, even if it means a reduction in profitability. An opposite view is the shareholder theory approach, which means that companies are responsible only to legally make profit for their shareholders. (Mohr & Webb, 2005)

Social responsibility does not mean that a company could not be as profitable as companies that are less responsible (Kärnä et al., 2001; Russo and Fouts, 1997). As issues concerning environmental and social responsibility become more common, the company must design their marketing so that profitability is not sacrificed (Kärnä et al., 2001). However, some managers might see environmental investments as an unfortunate cost of business instead of a potential source of competitive advantage (Miles & Covin, 2000). Many times, according to Pelozo & Shang (2011), companies' managers do not invest to acts of CSR to seek financial benefits but to create a social or environmental impact. They continue stating that these kinds of managers might not be interested in finding out how acts of CSR can affect stakeholder behaviour. In fact, understanding the effects of CSR activities on stakeholders could help managers to focus corporate resources to areas where social and environmental impact is fortified by economic grounds.

According to study results by Konar & Cohen (2001), major corporations tend to over comply with environmental regulations to portray an image of being environmentally

concerned. Furthermore, the companies are often rewarded financially for taking these actions. According to Miles & Covin (2000) companies that act in a socially and environmentally responsible way and who fulfil their other obligations towards customers, such as providing quality products in time, are creating reputational advantage. This sort of advantage encourages investors to invest in companies because of lower risks and higher marketing opportunities.

Numerous companies provide an environmental report once or twice a year, which gives information on the companies' environmental performance (Miles & Covin, 2000). They add that reputational advantage is a function of "credibility, reliability, responsibility and trustworthiness enhanced by superior environmental performance". A typical environmental report openly discusses the positive and negative issues in a company's environmental performance and it is often used to increase trustworthiness with the company's stakeholders (Miles & Covin, 2000). They also suggest that innovative managers are in continuous search of new sources of competitive advantage through reputation, image, segmentation and long-term cost savings. According to Srivastava et al. (2001), a company can be considered to have a customer-based competitive advantage when customers prefer its products to those of competitors. Sometimes the companies' stakeholders, such as the society, governments, customers and employees can become aware of the company's potential unsustainability (Noci & Verganti, 1999). Therefore, corporate reporting and sustainability reports are good mediums in openly reporting on the company's actions and promoting its sustainable behaviour.

New expectations presented by the society to companies to strive towards environmental friendliness force companies to understand how to integrate sustainability issues in their product development. This is a way to meet the society's expectations towards the triple-bottom line of social, environmental and economic sustainability (Dangelico & Pujari, 2010). The trend is clearly towards an approach that companies consider the multitude of possible effects a decision may have (Cronin et al. 2011). According to Essoussi & Linton (2010) and

Michaud & Llerena (2006), consumers' pro-environmental actions such as green product decisions and recycling have altruistic features. However, according to Mohr & Webb (2005), even though CSR and financial performance are linked together, the payoff from endorsing CSR programs is not certain and may require time. They claim that this is one of the reasons why managers still see CSR issues as an expense rather than as an investment.

### 3.4 ENVIRONMENTAL RESPONSIBILITY IN SMEs

Much of the previous research on environmental issues has been on consumer issues, large companies or they have been focusing on industries other than the printing industry, which is the one targeted in this study. However, a few studies have also focused on the environmental perspective of small and medium sized enterprises (SMEs) and one of them even concerns the printing industry (Tilley, 1999; Masurel, 2006; Simpson et al. 2004). Even though many of the papers on environmentalism and sustainable development have versatile and high quality recommendations on how to tackle environmental issues, because of the unique characteristics of small businesses they cannot simply put to practice scaled down versions designed by, and for, large businesses (Tilley, 1999). Different motives for businesses to invest in environmentally friendly processes include efficient use of energy, cost savings, waste minimization and limiting pollution. More attractive investment opportunities and the absence of excess capital are barriers for SMEs to invest in environmentally friendly technologies, at the moment (Masurel, 2006).

According to results found by Tilley (1999) and on her review on other studies, the typical owner-manager of a small company has a low level of environmental awareness and that the typical SME is not willing to take action towards environmentalism unless it faces prosecution or strong customer demands; these results are in line with previous research. Masurel (2006) states that SMEs are motivated to invest in environmentally friendly technologies more by external than internal reasons. In fact, according to results by Tilley

(1999), small businesses saw environmental protection to be an economic burden to their commerce and the economy. According to Simpson et al. (2004), most of the companies in their survey felt that meeting environmental requirements led to costs that could not be transferred to customers because there was no clear added value and only a few organizations believed that it brought competitive advantages. Other barriers for SMEs to consider environmental issues are that managers of SMEs have low awareness of environmental legislation, low level of ecoliteracy, managers think that the competitive advantages were small unless they sought for expensive advice or they do not have the time to consider environmental issues (Simpson et al. 2004; Tilley, 1999).

A few reasons that prevent companies from converting pro-environmental attitudes into pro-environmental action include low environmental awareness, economic barriers and limited business support (Tilley, 1999). Despite their pro-environmental values, the small and medium sized companies had difficulties in transforming these values into actions. Decision making in small, medium sized and large companies is often guided only by economic principles of profit maximization, wealth creation and growth instead of softer values such as social or environmental ones (Tilley, 1999).

According to results found by Simpson et al. (2004), SMEs may not acquire competitive advantage from the cost leadership strategy even if they were investing in environmental issues. The only way of adopting competitive advantage is from the strategy of added value, and it would require customers to acknowledge the added value and pass it on to their customers, they continue.

### 3.5 GREEN PRODUCT AND PROCESS INNOVATION

According to Pickett-Baker & Ozaki (2008), companies have introduced continually increasing amounts of green product innovations to the markets. A drastic change in the supply of green products should, over time, have an effect on people's purchasing behaviour and slowly accelerate the evolution of sustainable development, they add.

The supply chain for a product is presented in figure 5, below. The flow of products begins from the suppliers of raw material and ends in disposal and recycling. The striped arrows in the figure present the drivers of the supply chain. Indirect drivers come from the society and direct drivers come from the government through process and product regulation. As can be seen, regulation and social concern for the environment affect every step of the supply chain. Furthermore, social concern and regulation also affect each other.

Noci & Verganti (1999) suggest that when studying green innovation of SMEs the analysis should focus on the overall supply chain rather than just the drivers of a certain company's processes. They also state that environmental drivers can also be found in the requirements of the customer downstream, as can be seen in figure 5. The drivers of green innovation have two main drivers: environmental regulation of products and processes, and social awareness with concern for the environment. These two drivers often lead to innovation, when a company acknowledges the opportunities and threats it encounters.

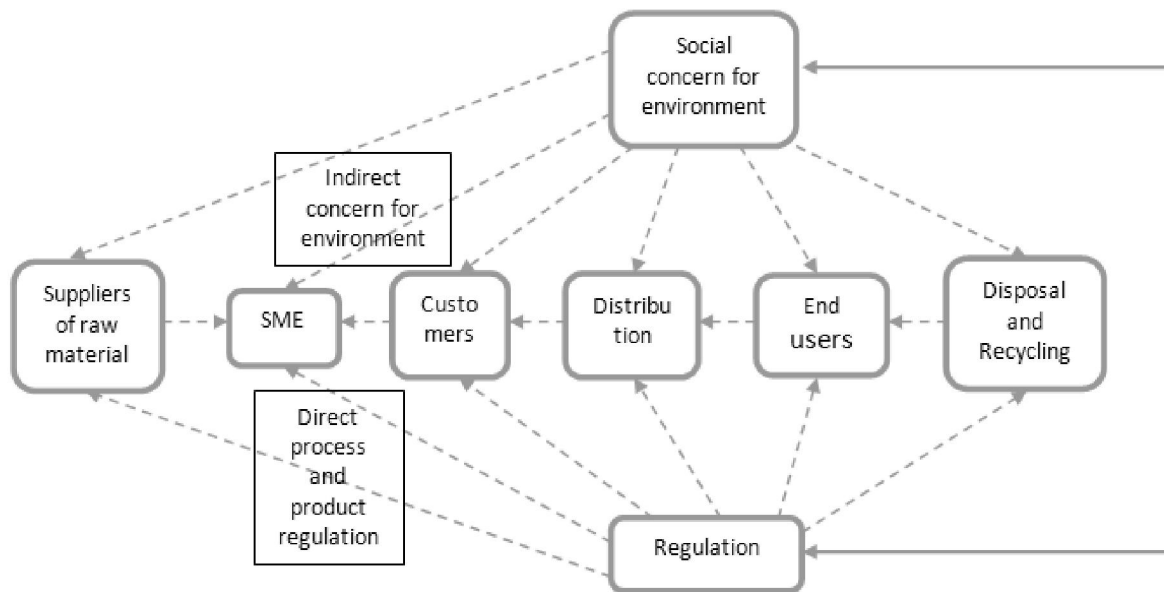


Figure 5. The drivers of green innovation. Source: Noci & Verganti (1999).

The authors emphasize that even though these drivers are very important, they are in many cases not sufficient by themselves. Noci & Verganti (1999) believe that the biggest influence is when regulation and social concern affect every step of the supply chain. According to Simpson et al. (2004), the pressures that companies face to practice sustainable development are legislation, regulation, costs, fewer landfill sites, and pressures in the supply chain. Drivers for sustainable development are aims of employees and stakeholders, costs, reduction of waste, customer satisfaction, better products and new market opportunities.

One of the actions of increasing green product supply could be to increase the products and services trialability. Vaccaro (2009) proposes the use of trialability, which means the ability for a new product or service to be tested before they are bought. The greater the trialability the greater is the adoption rate for a new product. She also adds that in order to boost trialability, B-to-B companies should introduce easy-to-try services or product rentals that would be less expensive than ownership.

In markets where environmental awareness is high and governmental regulations set stringent environmental standards, the introduction of a green product or process may improve the companies' market share and lead to reduced economic efforts, such as taxation, waste disposal and pollution control (Noci & Verganti, 1999). Pollution control can be accomplished through two different means: control and prevention. Control deducts pollution with the use of pollution-control equipment, traps or storages. Prevention reduces emissions with the use of material substitution, recycling and process innovation. The first mean involves expensive and non-productive pollution control equipment, the last one produces sealable goods while reducing pollution during the manufacturing process (Hart, 1995). Differences in environmental regulations between countries lead to the pollution haven hypothesis, which means that big companies would move their manufacturing facilities to countries with loose environmental regulation (Eskeland & Harrison, 2003). Even though this hypothesis is widely believed in, the actual effect has not yet been empirically proven to take place (Levinson & Taylor, 2008).

For a company, technology may influence its success on the market and therefore technology may be the source for competitive advantage (Frambach, 1993). Previously diffusion of innovation theory has been linked to B-to-B marketing of technological innovations, but recently Vaccaro (2009) has successfully linked it also to B-to-B green marketing. From her approach, diffusion of innovation theory includes the following: the adoption process (whether to adopt or reject an innovation), organizations features (size, structure, culture, R&D capability etc.), information about the innovation, competition and diffusion of innovation characteristics (Frambach, 1993; Vaccaro, 2009). When a company is familiar with the process of acceptance of new products, the company can alter its marketing strategy and improve the sales of new products. Therefore, it is important for companies to know the speed of adoption for innovations on the market (Frambach, 1993). The probability of a company's ability to absorb innovations sooner rather than later grows with its size, complexity, degree of specialization and extensive member participation (Frambach, 1993).

Information has a crucial role in the rate of adopting new innovations. The amount of information there is available and the quality and value of the information have a positive correlation with the rate of adopting innovations (Frambach, 1993). Relative advantage occurs when an innovation for a product or service is better than those of the company itself or its competitors, the bigger the relative advantage is; the faster is the adoption of a new innovation (Vaccaro, 2009). She adds that in building relative advantage, observability, compatibility, complexity and trialability also have to be acknowledged. Also, the better the information absorption ability of the company, the better it is to incorporate innovations (Frambach, 1993). Based on these issues, figure 6 presents an integrated model for B-to-B green marketing innovation strategies and competitive advantage. The model shows how proactive and reactive marketing strategies can be used to create competitive advantages. Short-term results develop from reactive strategies and proactive strategies lead to more sustainable competitive advantages as well as better environmental sustainability (Vaccaro, 2009).

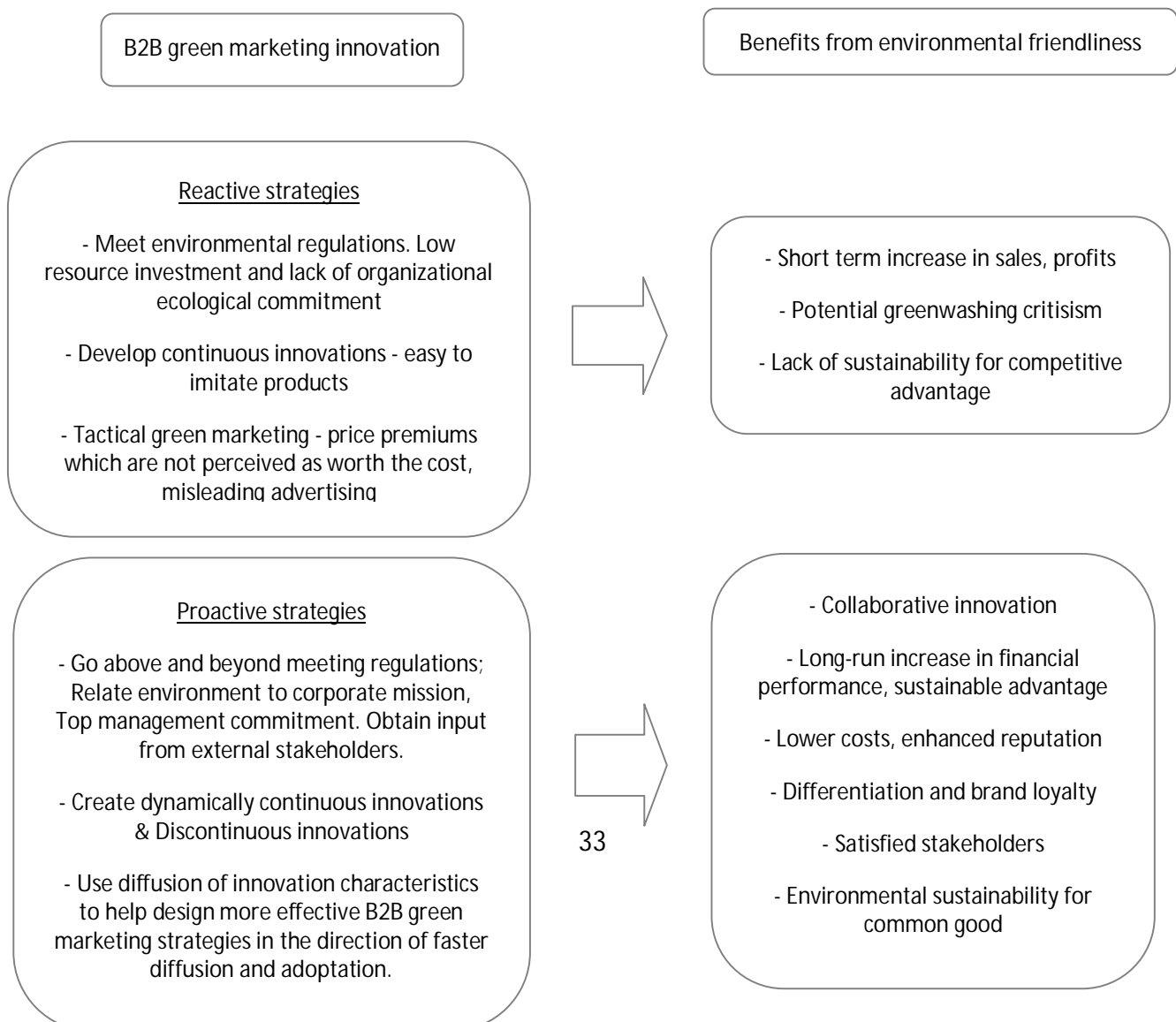




Figure 6. B-to-B green marketing innovation strategies & competitive advantage. Source: Vaccaro (2009).

### 3.6 BRANDING SUSTAINABILITY

A brand is defined by the American Marketing Association as a name, design, symbol or other feature that identifies a seller's product or service from those of other seller. Branding and the evolution of values are big issues in forming customers' attitudes towards sustainable consumption (Pickett-Baker & Ozaki, 2008). According to Grant (2008), a majority of green brands either are based on an alternative technology or are manufactured by a company, which runs on green principles. Pro-environmental values increase the probability of pro-environmental action (Pickett-Baker & Ozaki, 2008). This means that marketers should try to influence people's attitudes in order to change their behaviour.

However, the purchasing decision is also affected by other things such as previous purchasing experiences, brand loyalty and price as well as word-of-mouth (Pickett-Baker & Ozaki, 2008). According to Kujala et al. (2011), the requirement for a responsible brand to work effectively is to communicate it effectively to existing and potential customers. Another important issue in building responsible brands is that the process requires stronger vision, value foundation, commitment and stronger implementation than when building regular brands. Without the commitment of the company's management, it is almost impossible to build an effectively working responsible brand. Responsible brands also need

to be more transparent and openly explain what the company is doing and how the strategy is linked to the company's values and activities (Kujala et al., 2011).

In their research, Borin et al. (2011) found that products, which do not claim to be green, do not have to state any information on their environmental impact. Therefore, if a green and a non-green product were side-by-side on a shelf, without information on environmental impacts, a customer would not know which one is an earth-friendly choice. At first it seems that environmental labelling would help in the decision making process. However, a study which results were presented by Borin et al. (2011) showed that out of 400 currently used green labels consumers were only able to recognize two, the Energy Star and the recycling arrows. Furthermore, a symbol of three chasing arrows can mean that a product is recycled or it can mean that it is recyclable (Borin et al. 2011). This means that the use of labels in packages can mislead the consumer since most of the labels or their meanings are not well known.

Terms such as eco-friendly and environmentally aware are commonly used in today's marketing. Some consumers consider these terms vague and their use may even create cynicism among buyers. The results of Borin et al. (2011) indicate that policymakers should give serious thought to the idea of requiring manufacturers to state products' key ingredients and their environmental impacts. In their example, they present SC Johnson who has started to list all the ingredients in products and explained their purpose in the packaging information. They also point out that a company should be straightforward with their products' effects on the environment even if they were negative. This kind of action increases trust and deepens the relationship between companies and customers. Their main argument is that even though it does not seem like good business at first it is an actual evolution that has happened, for example in the marketing of foods. Nowadays nutritional labelling is quite straightforward with even the unhealthy ingredients in food.

Often, according to results found by Borin et al. (2011), consumers are interested in keeping things from getting worse in contrary to efforts towards making things better. Their review on earlier studies showed that a label with negative environmental information had a greater impact on the behaviour of consumers with an intermediate interest in environmental issues than a positive label. Their study concludes that green products would be favoured over non-green products in a situation where non-green product manufacturers would have to state the environmentally harmful impact of the ingredients that the product contains. However, they state that banning harmful ingredients is not a sustainable option. Research has proven, according to Borin et al. (2011) that full product information leads to better decision making as well as greater innovation.

Willmott (2003), states that a socially responsible brand has direct and indirect effects on commercial success. He explains that acts that are sustainable environmentally and economically result in e.g. better productivity and innovative product development. Indirect impacts to commercial success from corporate social responsibility (CSR) and responsible branding come from the society's awareness of the acts companies do in society, he adds.

Decisions and investments toward environmental friendliness of operation will bring companies competitive advantages in the long run (Hart, 1996; Sharma et al. 2010). Competitive advantages are developed by mitigating the companies' exposure to climate change and by seeking for new profit opportunities simultaneously (Lash & Wellington, 2007). In the past, environmental issues have been important for companies that produce consumer goods. This is partly because consumer actions have been thoroughly studied in the past. However, as stated before, these days also corporations have become interested in environmental issues. According to Pickett-Baker & Ozaki (2008), consumers are more likely to purchase products manufactured by companies whose production processes were thought to be environmentally friendlier. Furthermore, results showed that consumers said they were feeling good about purchasing products from companies who were less damaging to the environment.

An environmentally friendly products' quality must match the functional expectations of the customer. Even if the quality expectations of the products were affected by environmental beliefs, the quality/cost trade-off should be avoided (Alston & Roberts, 1999; Pickett-Baker & Ozaki 2008). Some consumers are willing to pay a price premium for product quality (Essoussi & Linton, 2010) and this premium is justified by the true value of the product.

Customer value is a function of the perceived value of the product or service relative to the price of competitors (Willmott, 2003). According to Srivastava et al. (2001), value is created through an interconnected network of actors with different types of relationships. Therefore, an individual company's capability to create value is in some situations not only up to the company's own resources. Since the value of a product is also enhanced by the size and growth of networks, the functionally best products would not always win but rather the products with the best networks (Srivastava et al. 2001).

Environmental performance is expected from both business-to-consumer and business-to-business firms and they must match their environmental policy and actions with their marketing strategy (Miles & Covin, 2000). The pressure of rising costs in the consumption of resources and in the disposal of wastes forces companies to certify their environmental management system according to regulatory schemes such as EMAS (Eco Management and Audit Scheme) or ISO14001 (Noci & Verganti, 1999). In addition, business customers' purchasing power is, on average, greater than that of consumers' so that it can aim greater pressure on a company to become more environmentally aware (Sharma et al. 2010). This could mean that a large retail company could influence its whole supply chain when becoming environmentally friendlier. As large businesses adopt environmental management systems, they also require their suppliers to have environmental certificates (Simpson et al. 2004). Furthermore, to meet the expectations of consumers regarding sustainability issues, companies are developing socially responsible brands (Kujala et al. 2011). Companies have

increasingly introduced products known as green product innovations over the recent decades. These products' performance is significantly greater than that of conventional products (Peattie, 1992; Pickett-Baker & Ozaki, 2008).

In consumer markets, environmentally friendly products and conventional products do not have the same value. So, according to Essoussi & Linton (2010), if a product has recycled components, the consumer's evaluation of the product and also her willingness to pay are also affected. Customer's willingness-to-pay for a product and the products functional risk are correlated. Low functional risk aspects include low probability of bad performance, low cost and no risk of physical harm. Often consumers have little or no knowledge of the non-virgin materials actual impacts on the functional risk of the product (Essoussi & Linton, 2010) so the perception of risks is sometimes based purely on intuition. The main reason for a lower willingness to pay is that consumers feel that products containing recycled material involve a higher functional risk. Aspects of a low level of perceived functional risk can be found from the consumption of recycled paper, for example.

According to Pickett-Baker & Ozaki (2008), perceived product performance can be a significant barrier for the consumption of environmentally friendly products. In addition, consumers will switch more easily from buying recycled products to buying new products, within a smaller price range, if the product has a higher functional risk. The perceived functional risk can be lowered by using well-established brands or attractive warranties (Essoussi & Linton, 2010).

### 3.7 WILLINGNESS-TO-PAY FOR ENVIRONMENTAL FRIENDLINESS

Customers' willingness-to-pay (WTP) for an environmentally friendly product is a good indicator of a products market potential. However, what customers state they are willing to

pay and what they are actually willing to pay might not be the same (Essoussi & Linton, 2010). Since a company's main objective of producing environmentally friendly products is to obtain maximum profit, the added costs must be covered by the customers' willingness-to-pay (Bovea & Vidal, 2003).

In their studies, Bovea & Vidal (2003) found that customers give additional value to environmentally friendly products and they are willing to pay extra for environmental aspects. However, consumers do differ in their level of willingness to choose pricier environmentally friendly products. This means that the willingness-to-pay extra for environmentally friendly products might be based on the price range different customers are ready to pay for a certain product. Borin et al. (2011) hint that a green products price premium might even sometimes have a negative effect on the consumers' judgment of product value. Kahneman & Knetsch (1992) refer that WTP amounts could more likely be called "willingness to acquire a sense of moral satisfaction". Sedjo & Swallow (2002), propose that eco-labels are a good way for customers to reveal their willingness-to-pay for ecological products. However, the benefits of eco-labelling and environmentally friendly production, such as encouraging companies to reduce damage to the environment, do not arise without the existence of pro-environmental consumers (Sedjo & Swallow, 2002).

In addition to willingness-to-pay, other positive signs of a products market potential include the company's access to markets, the level of customer loyalty, and company image. If the markets are saturated or there are barriers to entry, access to markets will be more costly and so it will be more difficult to map the products market potential. In addition, if a company already has a high level of customer loyalty or the company has a good image, new products will be easier to introduce.

### 3.8 MEASURING ENVIRONMENTAL PERFORMANCE

As more companies are adopting pro-environmental actions, there has also risen a need for tools to measure companies' environmental performance (Tyteca, 1996). In addition to providing information to compare performance between companies, these indicators could be used to study the effects of regulation such as pollution standards, taxes or emission trading on environmental performance, he adds. Environmental performance can be measured in many different ways, currently used indicators include Life Cycle Assessment (LCA), Environmental accounting, Pollution Performance Index (Tyteca, 1996).

LCA is a tool to measure the environmental impacts of products or activities during their lifetime (Azapagic, 1999). It can be used to evaluate and find out which parts of the product's life cycle consume the most resources. Even though LCA has already been in use since the 1980's (Azapagic, 1999) it has received wider attention and development much later during the 1990's. The popularity of LCA can be implemented for internal (e.g. improvement of product performances) and external uses (e.g. communication and marketing) (Vigon & Jensen, 1995). It can also be used in a limited perspective to study processes under a certain company's control.

According to a note titled "Environmental Performance Indicators" published by the World Bank in 1999, environmental impact evaluation is used to make sure different projects are having the expected impact and that no unfavourable or unanticipated environmental impacts occur. Because of the large scale of different environmental problems, there is no right or correct set of indicators. Idea behind the use of environmental performance indicators (EPIs) is to find out how certain projects affect the direction of change in environmental performance and to measure the magnitude of that change. However, trade-offs between information content of the indicators and the price of collecting them may

arise. The information is used to define whether the change in environmental performance is worth the resources about to be spent on the project. (The World Bank, 1999)

### 3.9 THEORETICAL FRAMEWORK OF THE STUDY

Based on the literature review, a revised version of the conceptual framework model introduced by Cronin et al. (2011) is selected as the theoretical framework of the study (figure 7). Each of the individual aspects of the framework are analyzed in order to form conclusions on the internal and external opportunities and threats that face the company.

In this framework, the company's corporate strategy is based on its marketing strategy, its values (CSR) and the way it handles its resources (RBV). The strategy is based on three intertwined key issues. On top of the triangle is the organizational view, RBV. It is composed of resources, costs, raw material availability and other important issues concerning the production process itself. Second internal function is CSR, which consists of company and customer values, if economical, environmental and social issues are seen as an opportunity to create competitive advantage or not. Third function is the company's marketing strategy, which consists of the product itself and what kind of product attributes (e.g. pricing, distribution) are concerned in order to build strong markets and relationships with stakeholders.



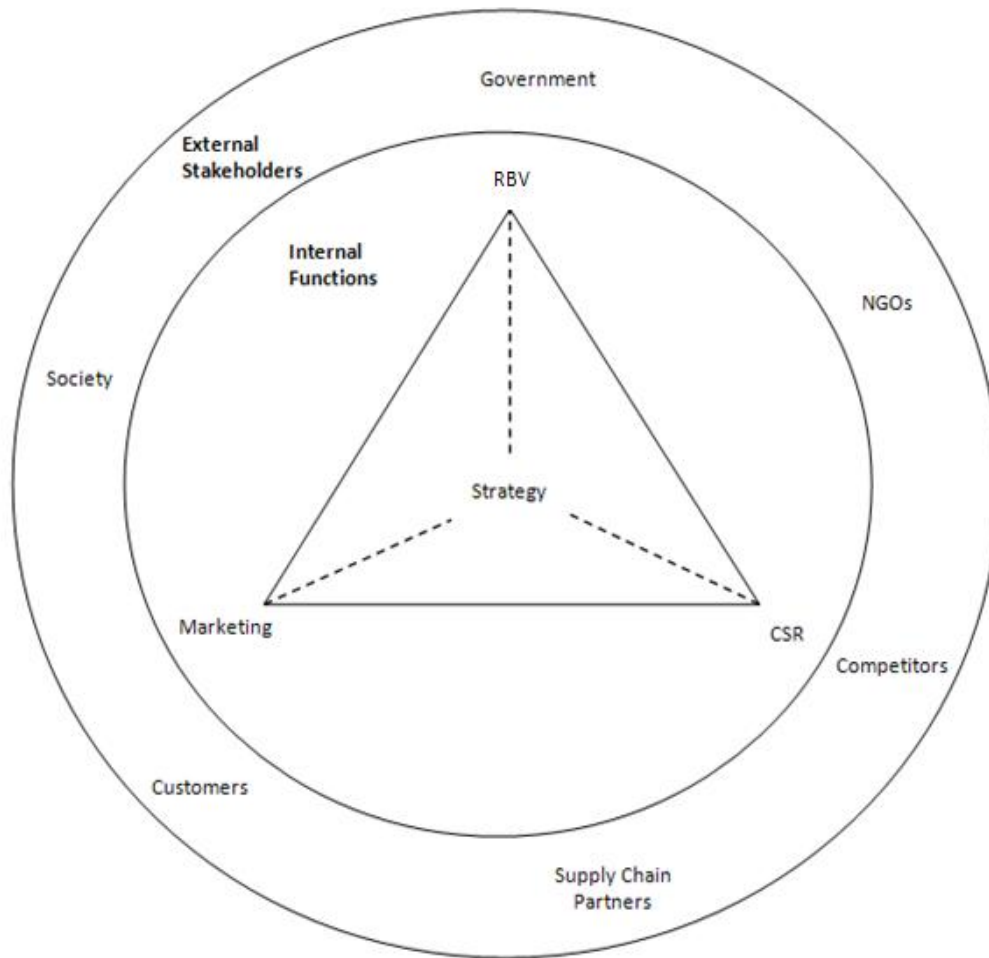


Fig. 7 Theoretical framework of the study. Source: Cronin et al. (2011)

A careful study of the company's external stakeholders is needed in order to form a basis for the company's strategy. In this study, data is collected from the case company's customers and supply chain partners. Information on customers' values and purchasing decisions are gathered from the theme interviews. In addition, background information on the environmental views of the customers is gathered through an electronic survey. By collecting mixed data based on interviews and a survey, it is assured that sufficient information is gathered in order to derive logical results based on the theory. When one is familiar with the company's external stakeholders and internal functions, a clear corporate strategy can be composed more easily.

The theoretical framework of the study has presented many different aspects playing their part in a company's corporate strategy. These attributes include resource, CSR and marketing perspectives. A company's marketing strategy is guided by management and company values. The original idea was to compile the interview questions so that the answers would be equally divided to represent each part of the internal functions presented in the theoretical framework: RBV, CSR and marketing. However, after designing the questions it was clear that a majority of the questions were marketing based questions, some were resource based and only a few concerned CSR issues. However, it should be noted that the questions are difficult to make to include only one aspect of the internal functions and to exclude the others. Even if it might seem like the results are unevenly spread to mostly give ideas on the interviewed customers' takes on marketing, because the functions are intertwined, it is possible to draw certain conclusions based on previous studies and the gathered data.

From managerial perspective, a company's marketing strategy is composed of many different parts and their form is influenced by the company's owners' and managers' values. If the company wants to search for competitive advantages from environmental issues, it has to be a conscious decision. Also, the whole management of the company has to be committed to the mission because resistance to change is common. It should be made clear from the beginning that competitive advantages from environmental issues should not be taken for granted, there are no win-win deals. When purchasing environmentally friendly products, the customers have to make a tradeoff because environmentally friendly products are pricier than conventional products. Because of this, green marketing has to be aimed properly in order to access the right target groups with the right values for the products. Otherwise money is wasted on targeting customers who do not value environmental issues enough to pay more for them. The right customers have to be known who have the willingness-to-pay and the right type of advertising has to be used to that the customer segment is reached. Furthermore, innovation is continually needed to develop new

products and new ways of doing things. Because some green products have a higher price, developing an innovative pricing mechanism is called for.

## 4 DATA AND RESEARCH METHODOLOGY

### 4.1 BACKGROUND INFORMATION ON THE CASE COMPANY

The case company for this study is DMP-Digital Media Partners Oy, a digital printing company founded in 1993 and based in Finland. The company offers a wide range of printing services including studio, sign & display, prepress, offset and digital asset management services. Its products include everything from business cards to grand format stickers as well as posters and boards. DMP is measured to be the most innovative company in the Finnish digital printing market. Its main market area is Southern Finland and in 2010, it had a turnover of 12 million Euros and 97 employees. The company is owned by the board of directors and the key management of each business unit. The company's biggest competitors include Hansaprint, Edita, Pixmill, Picaset, Uniprint and Multiprint.

### 4.2 DATA AND METHODS OF ANALYSIS

Selection of the method for data collection has to be justified (Hirsjärvi & Hurme, 1982) and different alternatives include interviews, questionnaires, analysis of documents or observation of behaviour. Currently there is no consensus on the characteristics of data collection in economic and social sciences (Koskinen et al. 2005); both quantitative and qualitative methods are used. Some argue that qualitative research can be used only as a preliminary stage before quantitative research and some say that qualitative research is its own scientific approach. The main idea of a qualitative study is to increase comprehension of companies' activities instead of explaining or controlling the activities and quantitative research is used to conduct statistical and mathematical analyses from the data (Koskinen et al. 2005). Kolb (2008), states that the analysis of qualitative data is used to search for meanings. Rather than prove facts by using statistics, analysis of qualitative data is used to answer the questions "why?" and "how".

This study will have a dominantly qualitative approach and use data collected from interviews combined with some quantitative data collected from a survey. Thematic interviews are the most common data collection technique and conducting a case study is the most common qualitative study method in social and economic studies (Koskinen et al. 2005). When conducted in the right manner, thematic interviews are a very efficient data collection process. However, conducting interviews also brings out some material redundant to the study (Hirsjärvi & Hurme, 1982). In addition, according to Hirsjärvi & Hurme (1982), one of the disadvantages of conducting interviews is that they do not provide the same amount of anonymity as surveys causing also higher danger for socially desirable answers, which can be an issue when discussing environmental friendliness in markets. In order to acquire data, which would provide information that is extensive and dependable throughout the company's external stakeholders, the choice to use a mixed method was made. For the interview situations to have a casual atmosphere, the choice was made to conduct the interviews in Finnish.

The main data for this study is qualitative and comes from the interviews while background data is collected from the survey distributed in the company newsletter. Koskinen et al. (2005), state that in guides for statistical research it is often stated that qualitative research provides background information and it is then deepened with quantitative research. However, they add that research can also be conducted the other way around and there is no widely accepted norm.

In this study, the idea is to use the quantitative data to give a general outline of the environmental values of DMP's stakeholders. This information is then deepened with the results from the interviews. The main themes of the interviews were environmental marketing issues, resource based issues and corporate responsibility issues. These three issues can be found from the company's internal functions section of the theoretical framework of the study (Figure 7).

The interviewees are carefully selected representatives of B-to-B customers of DMP Oy after discussions with several managers of the company. These 9 organizations were selected to represent a composition of multinational, domestic and local companies. In addition that companies vary in size, they also represent many different fields of businesses. Some of the companies are known as ethical and socially responsible companies, some of them are considered more "neutral" in the field of sustainability. The purpose of the interviews is to find out if the choices the customers make are based on cost aspects or whether also environmental issues matter. It is assumed that the choices a customer company makes are backed up by company values, which are again influenced by economic values, environmental values or both. The purpose of this study is also to find out if the customers try to emphasize their environmental values to their own customer's through product and service decisions.

In addition, a survey of 5 questions is integrated into the DMP newsletter, which is sent to circa 1500 of DMP's stakeholders (Appendix 2). The results from these 5 questions are used to give background information on the values and environmental opinions of DMP's external stakeholders. In an ideal situation, the gathered data gives information on the environmental values of each of the external stakeholder groups presented in the theoretical framework (fig. 7).

The analytical approach of the study will be a mixed method approach with qualitative and quantitative data. Since there is no existing data, which would help in answering the research questions, all the data for this study had to be gathered explicitly for this study. Theme interviews and a short questionnaire were selected as data collection means to give an in-depth view of the stakeholders' environmental views. By gathering data with two different methods, the reliability of the results is greater. If two different methods provide the same kind of results, the researchers' conclusions are more reliable than when using

only one method (Koskinen et al. 2005). Therefore, the results derived from the data cannot be the outcome of the special characteristics of the used method. The process of analyzing qualitative data used in this study is the one presented by Kolb (2008) (Figure 8).

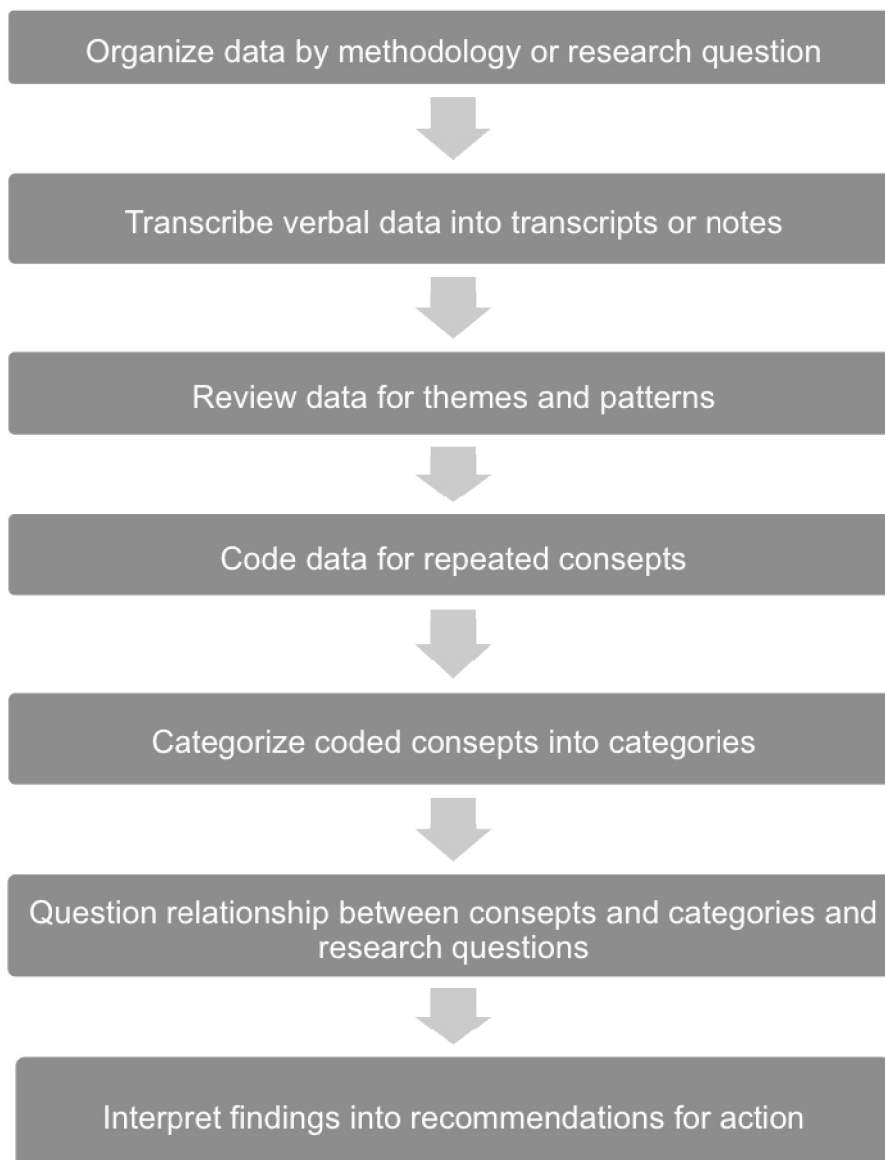


Figure 8. The process of analyzing qualitative data (Kolb, 2008)

The first step of the interview process was to become familiar with the theoretical and empirical literature concerning the study. Then, the questions were formulated and translated into Finnish and the interviews were conducted. After collecting the data from the interviews, the first thing was to transcribe the verbal data into transcripts and translate the answers back to English. It is important to transcribe the conducted interviews as quickly as possible so that the data is still recent and inspires the interviewer (Hirsjärvi & Hurme, 1980). These answers were then coded into an excel-sheet so that similarities and differences could be easily spotted from the table.

The verbal data was first categorized in the same order that the interviews were conducted. After this, all of the interviews were merged into one file by themes in the same order that they are in chapter 5. After studying the relationships between the results and the research questions, the final step was to interpret the results into conclusions and recommendations for action. The idea of this study is thus to give a general view of the customers' environmental attitudes and act as a base material for further research.

### 4.3 RESEARCH METHODS

The representatives of companies, that were interviewed for this study, were selected so that different customer orientations towards environmental issues would come visible. The companies that were chosen are different in sizes, but most are small and a few are medium sized or multinational. Some of the companies are known to promote sustainable development proactively. Other companies were known to have a more reactive approach to environmental and sustainability issues. The main reason to favour smaller companies in the interviews was that they do not often have clear environmental strategies. Instead, large and multinational companies have more straightforward environmental management systems and strategies. Especially larger companies tend to have established environmental management systems, policies and strategies because they are compelled to; through



higher visibility they simply face stricter requirements from consumers and other stakeholders to do so. The idea behind this study was to find out if companies who claim to act proactively also put their actions concretely to effect in a B-to-B business relationship, where consumers are not present.

Because pro-environmental action of small companies is voluntary, their answers would likely be more honest than those of bigger companies would. Big and multinational companies could favour environmental issues only because they feel that they are required to, not because they genuinely feel that they can acquire competitive advantage from environmental issues. Smaller companies are therefore in a position that they sincerely have to decide whether to promote sustainability and how they do it or focus on other areas of business. Sustainability issues have to influence every decision they make because it is the basis of their competitive advantage. Therefore, it will be of more interest to focus on smaller companies.

The next step was to select the companies whose representatives were interviewed. We wanted to select a range of companies that was heterogeneous enough. The choice to use theme interviews was made so that the diversity of reality could be described. A decision was made to target business customers that were known to have the time and interest to participate in such a study. The persons interviewed were thought to have good knowledge of their company's environmental strategies and a good level of ecoliteracy combined to good knowledge of economic issues. A decision was also made to also include companies that promoted environmental issues and companies that were known in being interested in using the cheapest raw materials or using the most economical production possible.

The selection of companies interviewed for a study has a direct influence on the results. If we had chosen only proactive companies, the results would have been different. If the chosen companies had all been reactive, the fifth chapter would be a different story.

Ultimately, because the results of the study are used to develop the case company's marketing; we felt that it is important to acquire a league of various answers. We wanted to know why some companies prefer environmentally friendly products and why some companies do not.

Furthermore, most companies of today want to present themselves as environmentally friendly companies. An interesting question is that do the companies also act according to their strategy in B-to-B commerce. Furthermore, are the companies only portraying themselves as green companies for image and marketing reasons? This sort of action would be considered greenwashing and it is commonly thought of being bad business since consumers eventually will find out if companies' actions are different from what they say they are doing. There are various examples of greenwashing and its negative effects available (for example, see Walker and Wan, 2011).

#### 4.4 VALIDITY AND RELIABILITY

Validity means how the proposed results, claim or interpretation refers to their subject (Koskinen et al. 2005). It can be further divided into internal and external validity. Internal validity of the data means the logicity and the lack of conflict within the data. External validity reflects to the possible generalization of the data to cases outside of the one researched. However, especially inner validity is often rather vague and refers to the obligation to be consistent. Valid information means that the researcher has to be able to show that his results are not from wrong questions or findings made in non-typical situations. Simply put, the results of a study should translate logically from the theory and the data. Our interviewees as current customers of case company had sound knowledge of the role of environmental issues in procurement due to their daily business activities, which should guarantee internal validity of the study.

Reliability of the data means the level of consistency of placing the results into the same category. The idea is to ensure that the representative hypothesis is not unique (Koskinen et al. 2005). A high degree of reliability means that the results are repeatable. By combining multiple research methods such as observation, interviews and recordings the results will be more valid and reliable. Reliability and validity can be translated to trustworthiness and quality in qualitative research (Golafshani, 2003). Koskinen et al. (2005), state that the research terminology is so complex that it would be simpler to talk about quality and researchers should mainly focus on systematic quality control. However, they add that because new and widely accepted concepts have yet to be introduced, the current ones should be used for now. We used a large number of direct quotes from interviews in reporting of the results, which should improve sufficient transparency of data to readers and improve reliability of analysis.

## 5 RESULTS

### 5.1 ENVIRONMENTAL MARKETING PERSPECTIVES

#### 5.1.1 MAIN SELECTION CRITERIA FOR PRODUCTS AND SERVICES

A list of the representatives of companies interviewed for the study identified with the field of business and basic economic information of the companies they represent is presented in figure 9.

Company	Business	Personnel (2010)	Turnover (2010, meur)	Position of interviewee
A	Digital Print	4	0,7	Manager
B	Ecological Design	14	1	AD & Publicist
C	Magazine Publishing	290	46	Marketing manager of strategic marketing
D	Cosmetics	154 (fi)	93 (fi)	Purchasing manager
E	Event Management	13	1	Manager & Founder
F	Branding & Design	8	0,49	Director, managing & creative
G	Car manufacturing	50	413,5	Marketing manager
H	Festivals	450	n/a	Marketing manager
I	Design & Fashion	1	0,17	Manager

Figure 9. B-to-B customer companies included in the study.

Because some of the companies also have international operations, the choice was made to show their personnel and turnover in Finland only so that the numbers would be somewhat comparable. However, information on personnel and turnover of large companies is difficult to find due to the large number of subsidiaries of some companies and no existence of a single venue, where country related company information could be collected. The

information found in figure 9 is the newest and most up to date information available at the moment. The provided information should be considered as background information and direct comparison between companies is not encouraged.

The purpose of the first section of the questionnaire was to find out the selection criteria for products. The most important criteria for product selection are presented in figure 10. Results of two questions are combined to this figure. Number of the criterion tells how many times it was mentioned in total in the interviews. According to the interviews, the most common selection criteria are material, functionality, appearance and recyclability. Surprisingly, price was mentioned only once in the data as the most important criteria. However, the sales staff of DMP said that almost every customer complains that the price is too high. This is a classic example of how people want to act and how they actually act. Therefore, in a real situation the products price could also be one of the most important criterions. Only two representatives of the companies said that price is not an important factor in decision-making.

Company B is known for its work on promoting environmental friendliness and sustainable development. The AD and publicist of the company stated the following on product purchasing criteria:

*"It depends on the case which one is the most important. But environmental friendliness is always on the priorities. We choose the ecological paper even if it costs more. Price is probably the least important. We pay more for quality and environmental friendliness."*

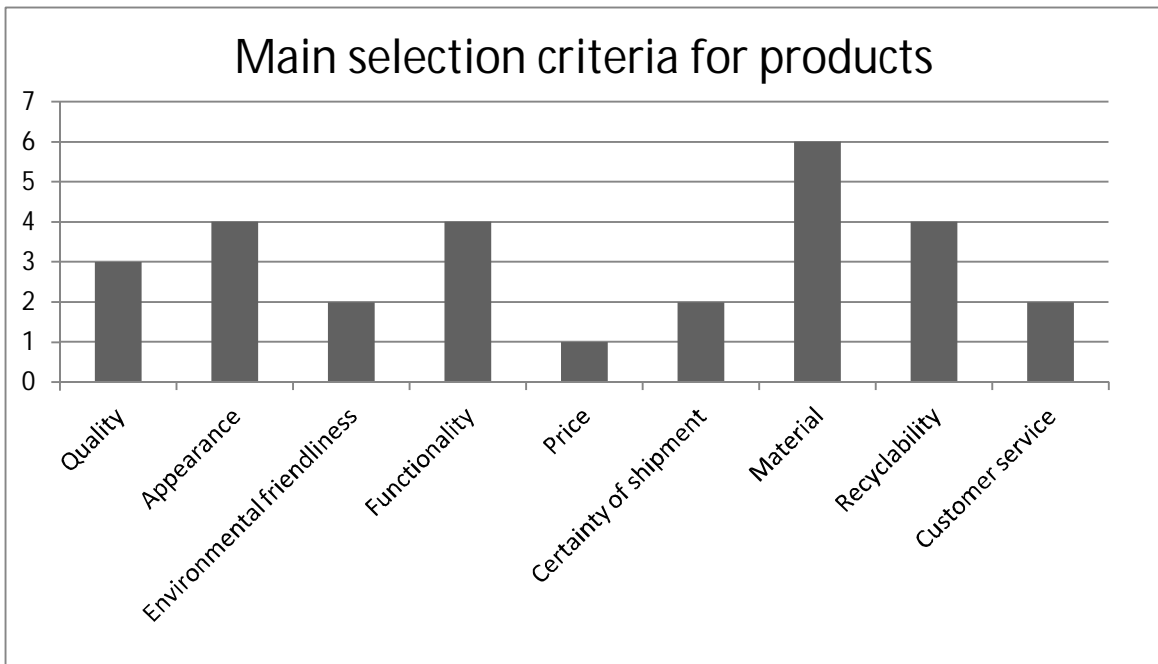


Figure 10. Main selection criteria for products.

It is clear that in a situation where a company's competitive advantage derives from environmental issues, the company has to purchase environmentally friendly products and use environmentally friendly production processes even if they cost more. Manager of company G, which is also known for favouring sustainable development, said the following on product decisions:

*"Price is probably the least important. We pay more for quality and environmental friendliness."*

Manager and founder of company E stated that environmental values are the least important factor and that price and appearance come first:

*"Practicality and appearance are very important. Price and certainty are 50/50. Environmental values come third. When you think of event production for a customer then appearance is the first and you try to get it for as cheap as possible."*

Services and product quality are also considered important when making purchase decisions. It seemed clear from the interviews that environmental issues are not always the guiding

approach when making purchasing decisions even though many companies want to pursue environmental issues. Purchasing manager of company D stated that:

*"The reality is that environmental issues are not the only guiding factor but whenever it's possible you take them into account...Nothing is intrinsic so you have to look at the whole picture, that you get a good product for a reasonable price. You shouldn't look at things in just black and white."*

One of the interviewees, manager of company A, stated that environmental issues do not affect their purchasing decisions.

*"Environmental friendliness in itself is not a selection criterion, quality and appearances come first."*

According to interviews, larger companies tended to have formal guidelines for purchasing. If environmental issues and sustainable development are accented in the company's purchasing guidelines, then such things have to be taken into account each time something is purchased. Company F does branding and design and so their customer's values have a big impact on how environmental values are handled in an individual project. According to the managing & creative director of company F:

*"If environmental issues are criteria of selection for our customers then they are really important. It seems like bigger companies often have stricter environmental criteria."*

Although price matters, according to the interviews, price would not be the most important single aspect in their B-to-B business. All companies want good quality for a fair price, as stated by the representative of company F:

*"A philosophy of quality is important for us. Also, good experiences mean a lot. From two offers we choose then one which has good quality and a fair price and recommend it also to our own customers."*

Most of the companies interviewed stated that they favour environmental issues when making purchasing decisions. While other companies put more emphasis on environmental

values, they are an important and an everyday issue for many companies nowadays. Marketing manager of company H told that:

*“Environmental issues are not the main point, but they are acknowledged in decision-making.”*

According to the literature, one reason for consumers not purchasing environmentally friendly products is that they are thought to be worse in quality than conventional products. However, at least according to the publicist of company B, some companies do not share this view:

*“Products made from recycled materials in general have a good price/quality ratio, because they have to. They are examined very carefully because of the higher price. These kinds of products have to reclaim their expectations.”*

It appears thus that quality is a much-appreciated feature among many of the company representatives interviewed. However, analysis of the results shows that every customer values their own thing. There is no single product attribute that would be unanimously favoured be it environmental issues, quality or price. Each customer has its own preferences and some want to purchase environmentally friendly products but some do not. Even though environmental issues are a big issue in today's business, it is up to the customers to demand a product that fits their purpose. At this point, it seems quite reasonable to offer both conventional and environmentally friendly products since there is demand for both product groups.

### 5.1.2 ATTITUDES TOWARDS ENVIRONMENTAL MANAGEMENT SYSTEMS AND CERTIFICATES

The interviews included some background questions regarding the company's relationship to DMP, their purchasing history and if the company has an environmental management system or environmental certificates. Three companies out of the nine interviewed said that they have an environmental management system or environmental certificate. Two of the



multinational companies (companies D and G) had such systems and many of the smaller companies said that they were interested in the systems. However, not all companies see that they need such certificates to do sustainable business. Manager in company B, which creates ecological design products, stated that:

*"We don't have environmental management systems or environmental certificates because we believe we don't need such things since we are already sufficiently green. Through communication and actions we try to be as transparent as possible so that additional certificates are not needed."*

Some of the included companies already had environmental management systems or certificates and most of the others were interested in them. For some customers knowledge of certification issues even influences the purchasing decision. Bigger companies face environmental requirements from consumers and environmental organizations to have environmental management systems. In the future, these kinds of demands from customers could also influence smaller companies in becoming greener. When discussing the effect of certification on purchasing decisions, manager of company C said:

*"You rather choose the material which is certified over the one that isn't, it has become more like a standard. There is always a substitute product. If it's almost the same product and it's certified then you prefer it."*

Even though certificates might not be a part of the actual purchasing decision, these kinds of issues contribute to the decision making process. Certificates are a part of a company's brand and their absence might have a negative influence on company image. For example, founder of company F said that in the case of bigger companies' reports, certificates are necessary.

*"Nowadays the paper in an annual report has to have five certificates. I do not think that certificates are behind the final decision; they are a part of the picture. Certificates are important things but not the basis of communication."*

An interesting find was to notice that, in some cases, there was a clear willingness-to-pay for environmentally friendly products. As stated before, the willingness-to-pay is a good indicator of a product's market potential. If a clear large-scale WTP would be found, then

the ecological product would also have a good potential to be bought. The representative of company C said:

*“An environmentally friendly product can have a price increase of its production costs.”*

However, the amount, which different customers are prepared to pay for environmentally friendly products needs further investigation.

### 5.1.3 ATTITUDES TOWARDS DESIGN FOR THE ENVIRONMENT

Companies often want to acknowledge environmental issues when making material choices. Sometimes, products are used only for a short time. In such cases, it is in line with company values to design products in a way that they can be reused or recycled after use. Marketing manager of strategic marketing from company C stated that:

*“We aim towards designing materials so that they can be reused several times. But in many cases campaign materials are only used for a short time so it is important that we do not put extra strain on the environment. We try to use recycled products, possibly also recyclable...Great importance is on the fact that it is produced from recycled materials. That the products are durable and fit for the purpose...It's important to design products so that they can be reused or recycled, in some cases more than others. We always think of the material and that can we reuse the product ourselves or how it's done so that it doesn't go to landfills after use.”*

Environmentally aware companies think of recyclability issues from the beginning of designing products. It is crucial to think of reuse right from the beginning because material and production choices might limit available options. Representative of company B asserted that:

*“Product design acknowledging the recyclability and reusability of the product is really important. It is vital to think of the products disposal and reuse right from the start. It is a two-sided question actually, because it feels gratuitous to design more waste but if it is made from recycled materials and you think of new ways to use old fabrics then it is not as bad.”*

Material choice is often driven by factors such as appearance and aesthetics. When a company designs something for a customer, the design process is driven by the message that wants to be given.

As stated before, brands have a big influence in forming customer attitudes and their purchasing behaviour. In addition, a successful brand has to communicate effectively. Some of the companies are clearly quality oriented, which was also expressed in the customer interviews. When asked about branding issues, representative of company G said:

*“Quality influences the brand but not the other way around. Someone might do bad quality thinking that a brand can take anything. A brand has to develop from quality.”*

The interviewees agreed that brand building is a time consuming process and it needs to be carefully planned. In addition, some companies may think that a strong brand can take anything, such as poor products or bad customer service. This is a false assumption and the reality is that a strong brand has to redeem its expectations.

## 5.2 RESOURCE-BASED ASPECTS

### 5.2.1 OPINIONS ON MATERIAL SELECTION AND RECYCLING

Sometimes the decisions concerning material selection are not based on environmental values. However, this does not necessarily mean that the company would intentionally disregard the environment. When it comes to material selection some companies' policies or guidelines are not so absolute. In some situations, there are no environmentally friendly materials available. Managing and creative director of branding agency F stated that:

*“There is no actual reason why we wouldn't favour the use of environmentally friendly materials. Maybe the only reason is inconsideration, indiscretion or just being unaware of options.”*

A situation, where inconsideration or unawareness is the only reason not to favour environmental issues, can be turned into business opportunities. In a situation like this, it is up to the marketer to act proactively, offer different kind of products, and give additional information on their production process and about the materials used. In marketing, the chosen material has a big role in delivering the right kind of message. This is also a challenge for companies to create products that are fit for all kinds of purposes but also environmentally friendly. Currently the situation is not environmentally as sustainable as it could be, since the printing business uses a lot of PVC and other non-recyclable materials that are difficult to reuse. Representative of company C said the following about material choice:

*“The chosen material has a big influence on the feel of the product. That is why material choice is one of the key issues in delivering the right message. Feel of the product, look of it, what it suits for, what sort of use are you looking for, if you want to give a better message.”*

Furthermore, a few companies shared the view that there are already enough materials in the world. They felt that companies should produce more products from the materials already produced. When asked about the reasons to use recycled materials, representative of company B told the following:

*“We support the use of recycled materials because there is already so much waste in the world. We want to make use of the materials that already exist. Why would you waste natural resources and fabricate products from new materials if you can do things some other way?”*

Company H organizes festivals. Since the appearance of the festival changes every year, it puts extra strain on the environment because some of the products are difficult to reuse. In such a situation, it is very important to maximize the use of recycled or recyclable materials to minimize the amount of waste, which ends up in landfills. Marketing manager of company H stated the following on material reuse:

*“It’s really important since we use hundreds of square meters of plastic-based prints. We avoid one time use whenever it’s possible. We archive some of the material to put up an exhibition and to think of reuse in the future...though, every year our appearance changes so it is difficult to reuse the materials”*

When conducting e.g. marketing campaigns, materials are often used for a short time. It is up to the companies themselves if they want to use materials that can be reused or recycled. Representative of company C said that:

*“Because these are often one-time events and this type of material is rarely used again of course environmental aspects matter. The material could be used for a day or two, or for one event only.”*

Company G, a car manufacturer, produces vehicles that are fully recyclable. Its marketing manager stated that they have solved the problem of reusing marketing materials that cannot be reused by the company itself:

*“When we’ve done things for fairs we make sure that there’s always reuse for the products. We don’t produce things for just one event. Old flags and banners have been taken elsewhere to turn them into new products.”*

Some marketing campaigns last for a short time and therefore, appropriate reuse for materials is especially important. The good thing is that several companies are clearly acknowledging this fact and seeking for proper treatment for marketing materials that are no longer needed.

### 5.2.2 VIEWS OF ENVIRONMENTAL FRIENDLINESS OF PRODUCTION

Production of printing products includes a variety of products made from different materials with different finishes; printing includes numerous machines and chemicals. It is up to the producing company to acknowledge environmental issues when making printing products. As stated by manager of company C:

*“The buyers and marketers don’t know much about the production process, so you trust what you are told. You prefer to choose the companies that do the best they can by using less toxic and less harmful substances. You just have to trust the subcontractor.”*

When asked about the use of toxic chemicals in the production of printing products, manager of company E stated:

*“Depends on the result...If you achieve something that is needed and the toxic materials are within certain limits then I approve the use. The problem is that you don’t know whether or not they are used. We trust that subcontractor companies use environmentally friendly production technologies and substances. Unfortunately sometimes stuff goes to waste without any recycling.”*

Many of the people interviewed shared the view that environmentally friendly production and the use of environmentally friendly materials is something that every company should strive to. Managing and creative director of company F, a branding agency, said that:

*“Environmentally friendly production is becoming more important all the time. Big companies are especially interested in these kinds of issues. Environmental issues can bring competitive advantages but they can also be a barrier because in some cases if you don’t comply with the criteria then you are not doing business.”*

As stated before, large companies tend to have stricter environmental guidelines when it comes to purchasing and production. These guidelines also limit the number of subcontractors that they can do business with especially with small markets or very strict criteria. Customers interviewed for this study were also pleased by the way that DMP does business and that environmental issues are acknowledged in the production process. Marketing manager of strategic marketing of company C stated the following:

*“We work with DMP in situations when we want something new and special, situations where we are not even sure on how to execute it. In the same time, we know that they are also acknowledging the production process. You have to fulfil the promises you make and in DMP’s case, it certainly is so. They communicate on how they do, what they do, openly and innovatively...Another reason we often want to work with DMP is their customer service. Their ability to produce ideas, understand needs, give more than what you expect for and evolve solutions even further.”*

According to the interviews, many companies favour environmentally friendly production. Even though investments in environmentally friendlier production can be costly, these investments seem reasonable since many customers value such issues.

### 5.2.3 ATTITUDES TOWARDS ENVIRONMENTAL FRIENDLINESS OF OPERATION

Values of company management can have a grand effect on how a certain company acknowledges environmental issues. Overall, it is up to the management to decide whether or not they want to have a reactive or proactive approach to environmental issues. When asked for an explanation for the company's reasons to acknowledge or ignore environmental issues, the manager of company A told:

*"We do not support the use of environmentally friendly materials because there aren't any. Other than Re-board which, in my opinion has an ugly edge. I'm the person offering products to customers so I have to like the products too. If the customer is looking for products from an environmentally friendly approach, then it's different...then you only have Re-board."*

This sort of attitude can be considered harmful for the environment, for many reasons. First, this manager thinks that environmentally friendly activity only means the use of paper-based recyclable products and that recycling is the only act of environmental friendliness. He thinks that because there is no environmentally friendly alternative for every product, there is no reason to support the products that are available. In this sort of view material management, how the materials are reused or waste minimization are not acts of environmental friendliness. In addition, the fact that the manager does not like a material does not mean that someone else would not find it aesthetically pleasing or fit for the purpose.

Ecoliteracy is unfortunately somewhat common in the business world. The person making the purchasing decision might not actively promote environmental issues or might simply be aware of the complexity of environmental issues. However, this can be seen as a business opportunity for marketers. If a company has a positive approach to environmental issues, then they could be more likely to purchase environmentally friendly products. On the

reasons why the companies would not promote environmental issues, manager of company F said:

*“There is no actual reason why we wouldn’t favour the use of environmentally friendly materials...If we design an appearance for a company, the choice of printing products and materials is driven by visual things, the feeling of the material. In a situation like that, if you have two choices, you would probably choose the one with better environmental aspects. What’s stopping from choosing an environmentally friendly option is the lack of variety.”*

Information on companies’ actions to environmentalism is available from a variety of different mediums: news, companies’ websites, sustainability reports, environmental organizations, word of mouth etc. The huge amount of available data makes it easier for customers to compare companies and it helps in the decision-making process. Manager of company C said:

*“Information on companies’ attitudes towards environmental issues is easy to get and compare. Firms communicate about environmental issues such as production and material choices well nowadays. No doubt if a company takes environmental issues into consideration and also puts them into effect in production then they are more likely to end up as the customer than a company that doesn’t.”*

Because information on companies’ success in environmental actions is widely available, greenwashing has become difficult, if not impossible. Companies that claim to be environmentally friendly also have to act accordingly; otherwise, the truth about their actions will become public one way or another. However, the purchasing decision is made by the customer who has to judge what sort of information to believe. It might be the company’s word against a non-governmental environmental organization’s word.

### 5.3 CORPORATE RESPONSIBILITY ASPECTS

Environmental and sustainability issues are intertwined and therefore their strict categorization is difficult. When it comes to corporate responsibility, as can be seen in



chapter 3.2, its definition is quite broad. It should be noted that corporate responsibility issues are not limited to only this chapter.

According to the marketing manager of company C, sustainable development issues have become more of a mainstream issue than a differentiating factor between companies. Especially for big companies, environmental management and certificates have become necessary. It is possible that in the future, this sort of thinking could become prevailing, but according to the interviews, quite a few managers currently share this idea.

*"We consume a lot of paper and it's important that environmental aspects are considered and that business is based on the principles of sustainable development... I think that nowadays support for recycled materials is a default rather than a differentiating factor between competitors. I don't know if it brings much benefit. I want our company to act on the principles of sustainable development but I don't really see it as a differentiating factor."*

Sustainability and environmental issues are really important in the printing industry because often the materials are used only for a short time. Company appearances change or marketing campaigns end and products are thrown away. It is up to the companies themselves to use materials that are easy to recycle and reuse. In addition, it is up to the company's management to make sure that materials are reused or recycled correctly after use. Manager and founder of company E stated the following on recycling:

*"In the end it's the sum of the end clients hopes and needs. When you talk about recycling, you can measure it by how many times a fair unit is used. In many cases the customer's visual appearance changes and it's thrown away because of that."*

Changes in visual appearance are common in marketing. It is important to use recyclable materials or find efficient reuse for the materials whatever the time of use may be. A company that proactively promotes environmental issues and sustainable development implements reuse for products into its product development.

## 5.4 INFLUENCE OF COMPANY SIZE ON ENVIRONMENTAL ATTITUDES

One interesting question concerning environmental issues is that does company size actually affect environmental attitudes? In general, bigger companies have more formal environmental strategies and guidelines while smaller companies do not actively promote environmental issues. Therefore, it seems that bigger companies are environmentally friendlier than smaller companies. According to Rivera-Camino (2007), large companies sometimes violate environmental regulations, even though they try to favour sensitivity in environmental actions. As a result, their views do not necessarily translate into positive, or proactive, environmental actions.

The companies interviewed in this study were categorized into proactive and reactive companies in figure 11, according to their size and environmental views of representatives interviewed. As a breakpoint whether companies are large or small and medium-sized, 40Meur turnover is used here. The answers were analyzed and laid out in order to figure out whether the companies' environmental marketing strategies were thought of as either proactive or reactive to find out if company size affects environmental attitudes.

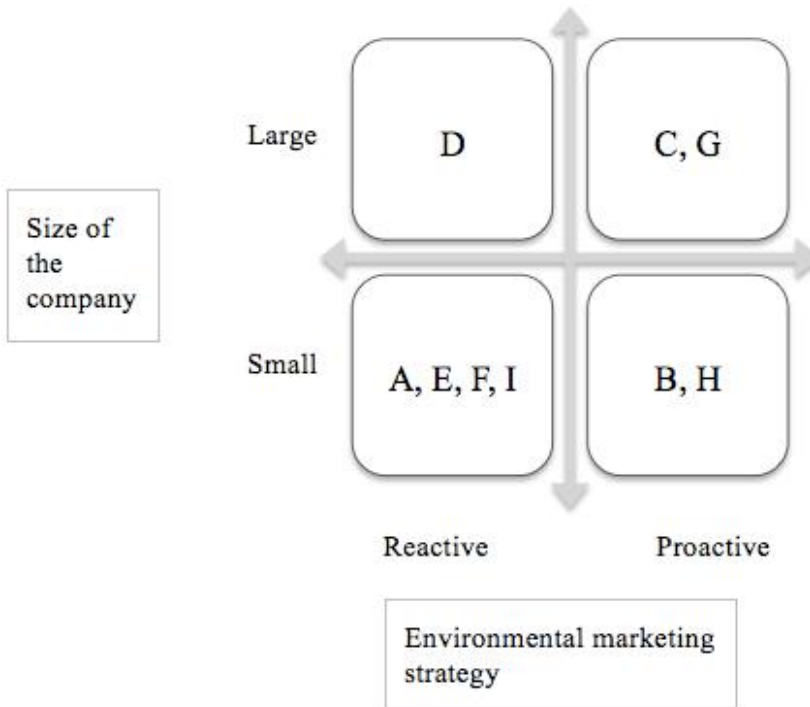


Figure 11. Categorization of customer companies according to their size and environmental strategy.

According to the study results, one of the three big companies included in this study was considered to have a reactive approach to environmental issues. A total of six small companies were interviewed and two of them were interpreted to act proactively. Based on the results there is indication that even smaller companies actually search for competitive advantages from environmental issues. Therefore, according to these results, a company's attitude towards environmental issues cannot be purely determined from its size.

## 5.5 INFLUENCE OF ENVIRONMENTAL ATTITUDES ON PURCHASING BEHAVIOUR

After the companies were divided into proactive and reactive ones, their purchasing behaviour was analyzed. There seemed to be a positive association between companies' environmental attitudes and their purchasing behaviour. Out of the four companies that are perceived as proactive companies, three indicated that the environmental friendliness of a product is more important than its price. All of them stressed the importance of environmental issues in decision making. In fact, all of the companies which stated that price is not an important factor were thought as proactive companies. In addition, all of the companies which stated that the price of a product is more important than its environmental friendliness were thought to have a reactive environmental marketing strategy.

According to these findings, there is some indication that a company's environmental attitude can be used to draw some conclusions on the company's willingness-to-pay. The companies that favour environmental issues seem to be more likely to purchase environmentally friendly products and also willing to pay more for these products. If proven correct, this information can be of much use when making green marketing planning. However, even though there seem to be evidence for a link between environmental attitudes and WTP, more research is needed to prove this hypothesis to be correct.

## 5.6 NEWSLETTER SURVEY RESULTS

A short 5-question survey was included in the DMP newsletter and it was sent to circa 1500 recipients. However, only 9 responses were received, which is too low to make any generalization from the results. The results of the survey are introduced in figure 12. The percentage of each column refers to the amount of respondents that agreed with the statements. The companies, which representatives were interviewed for the study were not included in the survey sample. The original idea was to gather background information of DMP's stakeholders from the results of the survey.

A few reasons come to mind for the low response rate. First, the survey was sent just before most people have their summer holidays so presumably people already had their minds on the coming weeks. Second, a low response rate could indicate that environmental issues are not thought to be as important. Third, the survey was only sent once and people were not reminded to respond to the survey. Sending of reminders would have raised the number of responses a bit but most often, the largest number of responses is gathered on the first round of surveys. Because of the low response rate, it is not reasonable to make remarkable conclusions from the results. However, the results can be used to give some additional information on companies' environmental values. The results also give some information on what kind of decisions customers would make in a trade-off situation, and it seems that respondents had some belief on differentiation by endorsing environmental aspects.

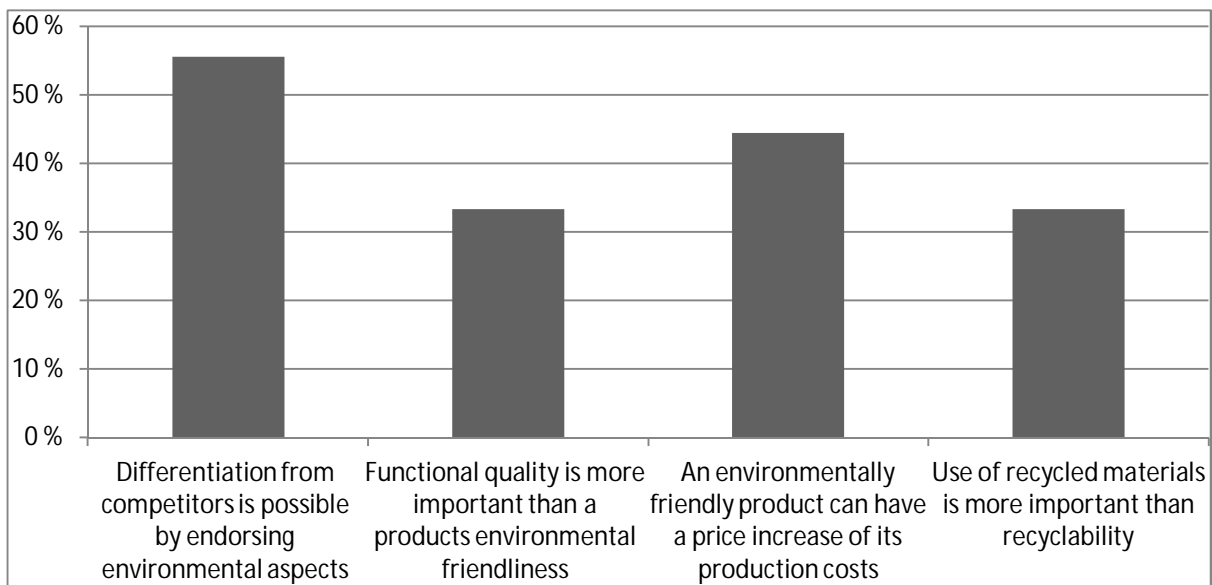


Figure 12. Results of the newsletter survey

From practical perspective, a short survey that is easy to answer to is in itself a good idea. If such a survey would be sent and analyzed in certain intervals, then the sender could predict

changes in stakeholder behaviour and values. This information can be used when designing new products and services to offer.

## 6 DISCUSSION AND CONCLUSIONS

### 6.1 SUMMARY OF THE MAIN FINDINGS OF THE STUDY

The purpose of this study has been to find out if environmentalism brings added value in the B-to-B customers of a case company in printing business. With a combination of earlier findings, views of company management and interview results from this study, decisions for further action can be made. Theoretically, green marketing can be used to meet but also guide demand towards more sustainable consumption. In addition to addressing resources where they should be used, green marketing has helped companies in acquiring larger market shares, encounter new customer groups and also adding customer value. Previous literature on green marketing has concluded that companies need to acknowledge the needs of consumers and stakeholders in order to maximize benefit from green strategies. However, choosing the right green marketing strategy can be difficult. Green products have been marketed as win-win products, and this has lead consumers to think that green products' environmental performance is superior compared to conventional products. Reality is that the performance of a product is always subjective, there may be some quality trade-offs and green products most often have a price premium so that there has to be a clear willingness-to-pay for environmentally friendly products for them to succeed in the market.

According to literature and also interviewed managers of this study some companies are willing to pay a price premium for a quality product. Some are also willing to pay extra for environmental aspects. However, a recycled products' higher price tag may also decrease sales because some customers feel that environmental issues do not bring added value to business and instead want to procure products for the cheapest possible price. A company that produces environmentally friendly products has to find the customers that have willingness-to-pay for such products. Since there is demand for both environmentally friendly products and conventional products, there is no need to tweak demand towards

only supplying environmentally friendly products. Based on the results of the interviews and talks with case company's sales staff it seemed obvious that there is a gap in how people say they act and how they act in an actual purchasing situation. For example, many companies claim they want to promote environmental issues but when it comes to purchasing decisions, the price is often the most important factor. In such a case, an environmentally friendly product would often not be purchased even though the company's values state that environmental values matter. In a situation like this, there is a need for innovative green marketing to turn customer company values into business opportunities.

Based on the results, the companies which felt that environmental issues are important also seemed to indicate higher willingness-to-pay for environmentally friendly products. The companies that were thought to have a proactive green marketing strategy, favoured environmentally friendly products even though they were more expensive. This information would be very useful for DMP's marketing if this correlation could be proven, but more data is needed.

Is the added value of environmentalism recognized by customers of B-to-B companies? According to these results, all of the representatives interviewed thought that the use of environmentally friendly materials helps in promoting a positive company image. In addition, the price/quality ratio of environmentally friendly products is thought to be as good as or even better than that of conventional products. Three interviewed managers shared the view that there is already enough waste in the world and environmental issues should be promoted for the environment. These three companies also had openly expressed environmental values that they wanted to pursue. Therefore, values, be it companies' or personal ones, clearly are a connective factor. Environmentally friendly production brings added value to business, it is considered as important and it seems to increase the likelihood of purchasing. Still, products have to be sold at a reasonable price. An interesting question is that in B-to-B business of printing industry, can the added value of environmentalism be passed on to customers of customers? According to these results, it



seems that it can be passed on. However, it is a question of finding the right remand since there clearly is demand for environmentally friendly as well as conventional products.

Place of installation and type of use puts certain material requirements for printed marketing materials. For example, if a print product has to be weatherproof, it has to be made of plastic or laminated since there are no environmentally friendly material alternatives currently available. The printing industry uses products that are made out of PVC and other non-recyclable materials, but a majority of the materials can still be recycled, reused or burned for energy. Since there are currently no substitutive products that would have the same characteristics, even if companies wanted to use recycled materials, in some cases they cannot. The lack of variety for certain product categories can be considered as a restriction to environmentalism. Marketing materials that are produced for an exhibition or fair are used only for a short time. In addition, companies' visual appearances change time to time and many materials have to be replaced by new ones. In the case of changes in visual appearances, material use and selection brings true challenges because the appearance changes completely and materials have to be produced again.

To summarize, in the following the research questions of the study are given and answered:

1. What are the main selection criteria for product and service decisions?

There were many different answers concerning the question on the main selection criteria for product and service decisions. The most important criterion seemed to be the material, and then came functionality, recyclability and appearance. Environmental friendliness was mentioned twice and price was only once in the nine interviews.

2. In what respect are customers purchasing decisions based on their environmental values?

Large companies have formal guidelines to environmental purchasing. Smaller companies tend to have more freedom regarding environmental issues because of fewer requirements from stakeholders such as customers and the community. However, if a company has

decided to acknowledge environmental issues in purchasing, then they are most important and company size has no impact.

### 3. What positive impacts are associated with environmental friendliness of operation?

Company managers and consumers feel good about purchasing from companies that acknowledge environmental issues in production. Customers have a lot of trust in their subcontractors on the environmental issues or production. Company managers feel that material management is important especially if printed marketing materials are used only for a short time.

### 4. Do customers try to emphasize their environmental values to their own customer's through purchasing decisions?

Companies that, according to the results of this study, have a proactive approach to environmental issues do not necessarily emphasize these issues to their own customers. Two of the four proactive companies in this study emphasized environmental or sustainability issues in their marketing. Environmental issues seem to be more or less important for most companies, but only a minority of them truly seem search for competitive advantages from environmentalism, or emphasize environmental issues in their own marketing.

Company management's personal views on environmental issues can affect the way business is done. Values and opinions can be of a person's own and company values might not be completely internalized. A single person interviewed for a study in one customer company can answer questions based on his/her own knowledge and answers between two representatives of the same company could widely differ from each other. For example, a person can think of a material to be ugly, worse in quality or the person can think that environmental issues are not so important. Clearly, this sort of approach to environmental issues can be seen as a very problematic issue for a few reasons. First, a manager who thinks that a material is ugly is acting as a gatekeeper between companies. Because the manager is

not fond of a product, he will not purchase it but also the product will not be offered to his customers. In the end, these customers downstream might not even know about the product if it is not made available to them. Second, environmental issues are about not only recycling paper products. Instead, environmental issues should be values and ways of doing things that has to be implemented throughout the whole organization. Environmental and sustainability issues include different actions, some of them are intertwined and complex and therefore require a high level of ecoliteracy.

Product quality attributes regarding weather and durability, among other things, set specific material requirements to printed products and it is clear that under these circumstances products cannot always be manufactured from recycled or environmentally friendly materials. In the printing business, plastics are used for stickers and lamination purposes and no substitutive products with the same attributes are in sight. The important question is how the company handles the materials when they become waste. In addition, proactive companies need to actively search for product and production innovations in order to act sustainably also in the future. This means that companies should be aware that current competitive advantages will expire and new ones will eventually have to be developed. Cooperation with customers and stakeholders is a good way to share innovations and possibly create new products and processes. Companies that acquire proactive green marketing strategies usually have an increased rate of adoption of new products, services, and processes. In addition, the importance and benefit of integrating CSR into different areas of companies' business units and activities has been proven.

Special requirements and changes in material or appearance are only excuses, not reasons, not to act in an environmentally friendly way. Many products can be substituted and most products can be reused or recycled. In this study, a few companies have stated that they do not produce anything for one-time use. One of the companies even creates design products out of other companies' waste. Materials can be reused; it is a question of will whether or not the proper reuse is sought.

B-to-B companies have reasons to engage or ignore environmental issues depending on their values and marketing strategies. Many of the reasons are backed by economic incentives be it cost savings, increased efficiency or achieving competitive advantages. Sometimes the reasons can be environmental such as reduction in waste, energy use and pollution, which also contribute to financial issues. Sometimes environmental issues are seen as a burden to commerce because of poor ecoliteracy, limited business support or more attractive investment opportunities elsewhere. Whatever the reason may be, competitive advantages from environmentalism are not an easy task to access and measure. When discussing the added value of environmentalism, customers have to be aware of the added value and also they have to pass it on to their own customers through higher prices.

Profitable environmental marketing requires that the environmental costs involved in production have to be internalized into the product. An interesting question is that how likely it is for companies to be able to move masses of consumers towards sustainability since some consumers lack understanding of sustainability issues and others practice distrust in companies.

In previous literature, Tilley (1999) suggests that a strong regulatory framework together with a combination of legislation and economic instruments could be successful in controlling the environmental damages generated by companies, especially small and medium sized ones. She concludes that companies receive confusing messages on environmental issues from stakeholders, environmental groups and the society. Therefore, if a company's management does not have a straightforward environmental strategy, the direction of a new one can be a difficult task to find. The solutions to companies' environmental problems should be sought for by including the company's stakeholders into the process, not just by examining the enterprises by themselves. Good environmental

practices should also be passed on to other actors in the supply chain, to ensure a continuous learning process.

Often, implementation of green marketing is done by offering green products because there is demand for them. By implementing a green strategy, the marketers and the rest of the company would follow. However, internal resistance is still an issue for many companies. For this reason, the whole company personnel have to be committed to the implementation of the environmental strategy for it to be successful. According to Cronin et al. (2011), previous research has shown numerous advantages of adopting socially responsible strategies and therefore, the number of companies executing such strategies is growing, which is also consistent with the findings of this study.

The results of this study could have been improved by asking more detailed questions and by asking the interviewees to give more examples of situations. As stated in the literature for qualitative research, compilation of a thorough qualitative questionnaire has its challenges. In addition, the interview process itself has its own tricks and the researchers inexperience certainly has its effects on the results of this study.

## 6.2 MANAGERIAL IMPLICATIONS

Environmental issues should be stressed in case company's marketing strategy in case when customer values also include CSR. Most customer companies more or less value the environment although some of them do not strongly emphasize these issues. Nevertheless, environmental issues have become an increasingly important issue in today's business and

company's size is not an indication of their attitudes towards the environment. Even if some B-to-B companies do not wish to acknowledge environmental issues, their customers may demand them, or the driver can come from legislation.

Customer satisfaction towards environmentally friendly products is a good indicator of their and other environmentally friendly product's market potential and therefore, measuring it would give much useful information. Environmental values in business culture should be emphasized but with caution, because greening can go overboard. Actions have to be credible in order to be successful. Improving the environmental knowledge, of company stakeholders by openly discussing what is done and why would remove barriers to environmentalism by decreasing internal resistance.

Companies that pursue proactive green marketing strategies are more likely to achieve long-term competitive advantages in addition to successful implementation of sustainable development. A proactive B-to-B green marketing strategy will increase the adoption of new products, processes and services. Overall, accurate execution of a proactive marketing strategy will help the company in achieving: sustainable economic competitive advantage, satisfied stakeholders and to make to world more sustainable ecologically.

According to the empirical results of the data collected for this thesis combined with a review of previous literature, the following steps can be proposed (Figure 13):

1. Look for new printed products that are based on environmental issues.
2. Create eco-alliances with stakeholders, product endorsements, innovations and corporate sponsorship to enhance credibility with stakeholders.
3. Use new media as well as recyclable promotional print material.

Advantages of purchasing green products should be emphasized clearly, how the product is in line with the customers' values and market needs and what kind of message can be given.
4. Collect and share information on printed products' environmental effects, be it good or bad.
5. Stress long-term ownership where possible over short-term price and offer price incentives. Stress product take-back and recycling.
6. Invest in environmentally sensitive production of print products

Figure 13. Managerial implications of the study (Modified based on Vaccaro et al. 2009)

Since it is clear that some value environmentalism and some do not, it could be reasonable to create an eco-brand. All of the products, which environmental impacts are lower than those of conventional products could be gathered under this brand. This sort of an approach would give a clear message to the customers that do value environmental issues but also to the customers that do not want to engage in environmentalism. In addition, open communication and thorough product information are important factors for a green brand to succeed.

### 6.3 DIRECTIONS FOR FUTURE RESEARCH

The purpose of this study was to give a general idea of business customers' environmental views. Even though many subjects were covered, there is room and need for further research on the issue. By gathering results between certain intervals, it would be possible to compare results and seek for trends in customer attitudes. As was stated before, this study has been acting as a starting point for future research. Therefore, there are many things that should be researched in the future.

The first issue is to conduct an electronic survey in a way that would produce decent, generalizable results. Another option would be to conduct an email survey. If the surveys were sent at a better time than before the holidays and reminders were sent, the amount of responses should be higher. Also, people could be personally prompted to respond to the survey.

Second, it would be interesting to find out the customer satisfaction towards environmentally friendly products. If it could be measured, for example in the form of WTP, then price premiums would be easier to allocate. Third, it would be interesting to find out how greenness is actually portrayed by customers and how would they feel about a company expanding their green product base. Furthermore, it would be interesting to find out what other companies are doing to solve environmental problems and would customers be interested in detailed product information on a products environmental effect.

Furthermore, trade-offs would be an interesting subject to cover. If there was an environmentally friendly alternative for every product, would they be purchased even if they were more expensive? This could be studied by simulating an actual purchasing decision with different types of products available and a certain budget to use. Finally, do



small and medium sized companies feel that they have a role in protecting the environment or are these issues left to large companies? In 2008, 99,7% of Finnish companies were considered to be small and medium sized companies (Federation of Finnish Enterprises, 2008). Therefore, because of their large number, the role of SMEs in handling environmental issues can actually be quite large.

## 6.4 CONCLUSIONS

Consumers and business customers in today's markets feel good about purchasing from environmentally friendly companies. Previous research has widely shown that consumers are more likely to purchase from companies whose processes are known to be environmentally friendly and the similar results were found in this study regarding B-to-B customers in printing business in Finland. According to the results of this study, there may be some level of willingness-to-pay for environmentally friendly products. However, the exact level of WTP needs further investigation and use of quantitative methods.

In some companies, especially SMEs, environmentally friendly activity is sometimes seen as an extra cost or burden. This is partly because of a low level of ecoliteracy and environmental awareness, lack of managerial resources and lacking knowledge of the added value of environmentally friendly products. An increase in awareness of green marketing and its influence on profitability would therefore be useful. In the longer term it is possible to acquire competitive advantages through the added value strategy and by passing the value on to customers in terms of higher prices, but it requires support from the whole company's personnel. As stated by Ginsber & Bloom (2004) "The organization and its people must truly support a green marketing strategy in order for it to succeed."

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## APPENDIX

*Questionnaire used in the interviews:*

- Name & Position in company:
- How would you describe your relationship with DMP Oy from a customer's point of view?
- 1. What sort of environmental management systems or certificates do you have?
- What sort of products and services have you been purchasing?
  
- 2. How important do you consider the following (in order from most important to least important with justifications):
  - Practicality of a product
  - Appearance of a product
  - Price
  - Certainty of shipment
  - Environmental friendliness
  
- 3. When making purchasing decisions how important are the following aspects (in order from most important to least important):
  - Recyclability of the product
  - Material used
  - Additional services
  - Customer service / Additional information of the product

What do you think of the following statements?

- 4. By purchasing products made from recycled materials we can differentiate ourselves from competitors.

5. Use of recycled/recyclable materials helps us in promoting a positive image of our company.
6. The actual message is not affected by the selected material.
7. A recycled product has a good price/quality ratio.
8. Purchasing decision is affected by environmental values
9. A product made from recycled material is not as good as a conventional product, quality wise.
10. In your own words, describe why do you / why don't you support the use of environmentally friendly materials.
11. Do you emphasize environmental aspects when executing an advertising campaign?
  - Yes, we always choose environmentally friendly materials, if they are competitive in their characteristics.
  - Yes, we always choose environmentally friendly materials. Costs are not a primary issue.
  - We do not emphasize environmental aspects.

How important do you consider the following? (Free-form answer)

12. The product is designed so that it can be reused / recycled.
13. Environmentally-friendly production (low energy consumption, recycling of waste, minimization of over production, etc).
14. The product is made from recycled materials.
15. The production process minimizes the amount of hazardous substances.
16. How much do you believe that the producers brand effects on the products' quality?
17. Is your purchasing decision affected whether or not the product is manufactured from certified raw materials?

*Questionnaire for the newsletter:*

- 1) By endorsing environmental aspects, it is possible to differentiate from competitors. (Environmental image as a differentiated competitive advantage)

- 2) A products functional quality is more important than its environmental friendliness. (Functional quality vs. environmental quality)
- 3) An environmentally friendly product can have a price increase of its production costs, compared to a conventional product. (Environmental quality vs. price)
- 4) Production of recycled materials is more important than recyclability after use. (Recycled materials vs. recyclability)
- 5) Our company has an environmental management system.