Greening the marketing mix
A case study of the Rockwool Group

Bachelor’s thesis within Business Administration
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Abstract

Purpose: To explore how a company can make its marketing mix, the four Ps, greener. This is done with a case study of the Rockwool Group.

Background: The Rockwool Group is the world’s leading producer of stone wool. It consists of twenty-one factories in three continents and its primary business area is within insulation. The Rockwool Group’s products improve the quality of life and helps to alleviate environmental problems, such as the greenhouse effect, smog and acid rain.

Problem: Today many companies want to improve their greenness. A way to do this is by greening the marketing mix. The current green marketing literature only touches upon certain aspects of the marketing mix, but there are no recognized studies that provide guidelines on how to green the marketing mix.

Methodology: The data collection consists of several semi-structured interviews with employees from different departments. The authors interviewed employees from three subsidiaries from different parts of the world – Scandinavia, North America and the Balkans.

Conclusions: Through the case of the Rockwool Group the authors have explored how to green the marketing mix. This has shown that product, place and promotion have several factors that can be greened. However, this specific case study only shows how prices set a premium are greened. Another case focusing on standard prices can provide further suggestions to green the price.
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1 Introduction

Today many companies strive to grow and increase their profits. During the last decades, a lot of companies have tried to create competitive advantages by becoming more environmentally responsible. Nowadays, some companies try to green everything from their ground level manufacturing to their top management.

One way of being environmentally friendly is to use green marketing. Green marketing is today used by many companies and it deals with all the activities designed to generate and facilitate any exchanges intended to satisfy human needs and wants, with a minimal effect on the natural environment (Polonsky, 1994). There are different approaches to green marketing where some companies are more environmentally responsible than others.

This paper is a case study of a company dealing with green marketing. The chosen company is the Rockwool Group who specializes in producing insulation material from rocks. The Rockwool Group is the world’s leading producer of stone wool who always tries to reduce the negative effects on the environment (Rockwool International A/S, 2010a). In this report, the green marketing strategy of the Rockwool Group is identified with the analysis of three of its subsidiaries in Scandinavia, North America and the Balkans. The information gathered will enable the authors to propose guidelines on how companies can green their marketing mix.
2  Rockwool Background

The Rockwool Group was founded in Denmark in 1937 and is currently employing more than eight thousand highly skilled persons. It is the global leader in stone wool insulation production. The Rockwool Group operates and consists of twenty-one factories in three continents and has a worldwide network of sales offices, distributors and partners ensuring that its stone wool products reach all parts of the globe. The primary business area is within insulation (Rockwool International A/S, 2010b).

The Rockwool Group, along with its subsidiary companies, is always trying to be environmentally friendly. To keep being environmentally friendly the group always tries to:

1. Have an environmental management system, which describes responsibility and control procedures, and to make constant improvements to this system
2. Ensure that the factories do not cause problems for their neighbors of a more serious nature than is normal in an area also housing industry
3. As a minimum, comply with the conditions imposed on them by the regulatory authorities; if this is not happening in any given area, then to inform the authorities immediately and to take steps enabling compliance
4. Maintain an open dialogue with stakeholders - customers, regulatory authorities, investors, employees, suppliers and neighbors - in order to ensure that relevant interests and requirements concerning environmental issues are met
5. Via the Group's environmental department, carry out audits at the plants to assist the environmental work of the manufacturing companies (Rockwool International A/S, 2010c)

The recent rapid increase in demand for more energy efficient buildings as well as reductions in CO\textsubscript{2} emission has put stone wool insulation in a strong position. Stone wool insulation is becoming attractive because its production is based on green technology and on the recycling of waste products. Thus, stone wool insulation is not only energy-saving but it is also friendly for the environment (Wodschow, 2009).
3 Problem Discussion

The focus of this thesis is to explore how a company can green its marketing mix. This topic deserves to be studied because researchers claim it is important to green the marketing mix (Prakash, 2002; Polonsky and Rosenberger, 2001; Baumann and Rex, 2006). However, the authors have not yet encountered a quality controlled academic paper that explores this issue. The results of such a study will not only be a contribution to green marketing theory, but can also act as advice to other companies aiming to green their marketing mix. Furthermore, the authors believe that the contribution of this paper can be used as a basis for further learning within green marketing and green strategies.

Another reason why this topic deserves to be studied is because today people struggle with the financial crisis. The effects of the current financial crisis have made people more aware of their unnecessary spending. One area where people’s cost can be decreased is the energy-saving area. According to van Heel (2010), the heating and cooling of buildings account for approximately 40% of the energy consumed in modern society. Most of this energy can be saved if people would insulate their buildings better (van Heel, 2010). The mix of people’s concern for the environment while simultaneously wanting to lower costs fits the Rockwool Group well. The Rockwool Group has a strong environmental policy that is incorporated throughout the whole corporation. Furthermore, its products offer long-term savings in costs, and also reduce the effect people have on the environment. Therefore, this topic is today both relevant and important to study.

Both people’s concern for the environment as well as their eagerness to reduce costs has put the Rockwool Group in a good position. It is, however, crucial that the Rockwool Group uses proper green marketing strategies. The authors identify what green marketing strategy the Rockwool Group currently uses and how the company has greened its marketing mix. This information is used in order to propose useful guidelines for companies aiming at greening their marketing mix.
3.1  Purpose
- To explore how a company can make its marketing mix, the four Ps, greener.
  This is done with a case study of the Rockwool Group.

3.2  Research questions
This study aims at answering the following research questions:

1. Why did the Rockwool Group go green and what strategy are they using?
2. How can companies make their products more environmentally friendly?
3. What aspects should companies consider when setting the price of their green product or service?
4. Which things do companies need to take into consideration when deciding upon where to make a green product or service available on the market?
5. What environmental information should be communicated and how should it be communicated?
4 Frame of Reference
The purpose of this frame of reference is to show the available knowledge about green marketing. First, the authors introduce and define green marketing. Second, the authors identify several reasons of why companies should adopt green marketing. Along with this, the authors show different strategies of green marketing available to green companies. Furthermore, the authors show the current knowledge on how to green the marketing mix.

4.1 Green Marketing
There are several different definitions of green marketing. McDaniel and Rylander (1993), for example, have coined the term green marketing to describe marketers’ efforts to develop strategies targeting the environmental consumer. Polonsky defines green marketing as: “Green or Environmental Marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment” (Polonsky, 1994, p. 2).

Prakash (2002) argues that the relationship between the marketing discipline, the public policy process and the natural environment is of great importance. Prakash (2002) also identifies several terms used to describe this relationship, such as, environmental marketing (Coddington, 1993) and greener marketing (Charter and Polonsky, 1999). Furthermore, Fisk (1974) uses the term ecological marketing to explain this relationship (cited in Prakash, 2002), while Fuller (1999) uses the term sustainable marketing (cited in Prakash, 2002). However, Prakash (2002) terms this relationship as green marketing. Green marketing is linked with the strategy to promote products by using environmental claims either about their characteristics or about the system policies and processes of the companies that manufacture or sell them (Prakash, 2002). The common public opinion about green marketing is that it refers only to the promotion or advertising of products with environmental attributes (Polonsky, 1994). However, Polonsky (1994) claims that green marketing contains a broad range of activities, such as product modification, changes to the production, packaging alterations, as well as modifying advertising. According to Menon and Menon (1997), green marketing is also a part of the overall cor-
porate strategy. It requires that companies manipulate the marketing mix, as well as understand public policy processes (Prakash, 2002).

Ottman (2006) claims the first rule of traditional marketing, as well as of green marketing is to focus on customers’ benefits. Ottman (2006) gathers green marketing into five rules:

1. Make the consumers be aware of and concerned about the environmental issues that your product addresses.
2. Make the consumers feel that by using your product they will make a difference.
3. Make the consumers believe your claims.
4. Make consumers believe your product will also work well as non-green alternatives.
5. Make consumers afford any premiums.

Ottman (2006) sums up green marketing by claiming that if a company follows the five rules, it can lead to product improvements that can improve marketability, strengthen overall performance and become a potential source of innovation.

4.2 Why go green?
Polonsky (1994) identifies several reasons of why companies should adopt green marketing: Social responsibility, opportunities, governmental pressure, cost or profit issues and competitive pressure.

4.2.1 Social Responsibility
Companies are realizing that they are members of a wider community, and thus have to behave in a way that is friendly for the environment (Polonsky, 1994). This means that companies realize that they must both achieve environmental objectives as well as profit related objectives. This acknowledgement means that companies integrate environmental issues into the companies’ corporate culture. Polonsky (1994) says that there are two perspectives available for companies in this situation:

1. Companies can use their environmental consciousness as a marketing tool.
2. Companies can be environmentally responsible without promoting this fact.
Many companies desire to implement both approaches simultaneously. Such companies try to offer environmentally responsible solutions to their customers. Moreover, by marketing this behavior they can create a competitive advantage (Polonsky, 1994).

4.2.2 Opportunities
As people are becoming more concerned for the environment, the benefits of adopting green marketing are increasing (Polonsky, 1994). Companies that have adopted green marketing into their corporate strategy can enjoy sustainable competitive advantage over the companies who are marketing non-environmentally responsible alternatives (Polonsky, 1994). Also, first-movers that adopt green marketing improve their image by reacting to market incentives instead of government regulations (McDaniel and Rylander, 1993).

However, green marketing is not always beneficial because companies may use it to mislead their consumers in attempt to gain market share. According to Polonsky (1994), companies have used false claims of the effectiveness of their products, as well as of the accuracy of their behavior. This often leads to companies losing both customers and market share (Polonsky, 1994). Other factors that can negatively affect the market share are that companies that employ green marketing, but are not first-movers, may be seen as imitators. Customers may be skeptical of these latecomers’ true intent (McDaniel and Rylander, 1993).

4.2.3 Governmental pressure
In all marketing related activities governments try to protect consumers; this is true for green marketing as well. Polonsky (1994) identifies several ways where governments protect the consumers and the society. Governments try to:

1. Reduce production of harmful goods or by-products.
2. Change consumer and industry’s use and consumption of harmful goods.
3. Ensure that all types of customers have the ability to evaluate the environmental composition of goods.

Governments try to establish regulations that control the amount of dangerous waste produced by companies. They also issue various environmental licenses in order to control by-products of production, which modifies organizational behavior (Polonsky,
1994). Furthermore, governments try to encourage final consumers to become more environmentally responsible. This triggers companies’ will to become environmentally responsible, as they satisfy their customers better. Moreover, governments publicize environmental regulations that control green marketing claims. The *Environmental Claims in Marketing – A Guideline* and the *Guides for the Use of Environmental Marketing Claims* are examples of these publicly available documents (Polonsky, 1994). These regulations make sure that customers have appropriate information, which enables them to evaluate companies’ environmental claims. In, for example, the USA many States have stricter rules than the publicized environmental guidelines issued by the country. Thus governmental attempts to protect consumers from false and misleading claims provide consumers with the ability to make more informed decisions (Polonsky, 1994).

### 4.2.4 Competitive pressure

The activities by a company’s competitors influence the company to modify its strategy. Many companies observe competitors promoting their environmental behaviors and they try to follow suit. As mentioned above, McDaniel and Rylander (1993) identify companies’ competitors as a potential reason for the change in companies’ environmental behavior. Furthermore, McDaniel and Rylander (1993) discuss the effects of being a first-mover or a follower.

### 4.2.5 Cost or profit issues

Some companies also use green marketing in an attempt to address cost or profit related issues. According to Azzone and Manzini (1994), environmental issues can improve the performance of companies. Green marketing acts both on revenues and costs. A green marketing strategy often leads to higher revenues (Azzone and Manzini, 1994). However, more limiting environmental standards can increase manufacturing and non-manufacturing costs. On the other hand, when companies focus on improving environmental performances it might result in less waste, which in turn lowers costs (Azzone and Manzini, 1994). Polonsky (1994) argues that when trying to reduce waste, companies are often forced to re-examine their production processes. This often leads to better production processes that both reduce waste and reduce the need for raw materials (Polonsky, 1994). Also, companies sometimes attempt to find end-of-pipe solutions instead of reducing waste. This means that companies try to find other markets where
their waste materials can be used as an input of production (Polonsky, 1994). Polonsky (1994) also claims that cost or profit issues may affect companies’ environmental marketing activities in the way that industries may be developed. Yurman (1994) identifies two ways in which this can happen (cited in Polonsky, 1994):

1. Company develops a technology for reducing waste and sell it to other companies; or
2. Waste recycling or removal industry develops.

4.3 Green Marketing strategies

4.3.1 Defensive vs. Assertive

McDaniel and Rylander (1993) link the term green marketing to marketers’ attempts to develop strategies targeting environmental consumers. Furthermore, marketers should understand the environmental problems and be able to include these issues into the strategic marketing management process (McDaniel and Rylander, 1993).

McDaniel and Rylander (1993) provide two approaches to green marketing: defensive and assertive. Companies that use the defensive approach do the minimum in order to avoid negative consequences. To avoid penalties these companies meet only the minimum environmental regulations imposed by the government. McDaniel and Rylander (1993) believe that most of the companies, which take a defensive approach to green marketing, will not encounter significant increase in market acceptance. Furthermore, these companies are not likely to gain a competitive advantage in this dimension (McDaniel and Rylander, 1993).

The second approach is an assertive approach. Companies that use the assertive approach have the best opportunity for a sustainable competitive advantage in this dimension (McDaniel and Rylander, 1993). Furthermore, this approach often involves having the advantage of being a first mover. Also, the assertive approach responds to market incentives rather than government regulations, meaning that companies exceed what is required by, for example, governments.
McDaniel and Rylander (1993) emphasize the importance of being a first mover. In green marketing the first mover advantage is important because the companies following the same practices might be considered imitators jumping on the green bandwagon (McDaniel and Rylander, 1993). Furthermore, the first mover advantage requires good strategic marketing in order to create an image of a sincere environmental activist. This creates the basis for sustainable competitive advantage. Other benefits of the assertive approach include that government agencies are less prone to investigate and control the companies who adopt this approach.

4.3.2 Lean, Defensive, Shaded and Extreme.

According to Ginsberg and Bloom (2004), managers of green companies must ask themselves two main questions, with some sub-questions, regarding a green marketing strategy:

1. How substantial is the green consumer segment for the company?
   a. Can the company increase revenues by improving on perceived greenness?
   b. Would the business suffer a financial blow if the consumers judged the company to be inadequately green? or;
   c. Are there plenty of consumers who are indifferent to the issue that the company can serve profitably?

2. Can the brand or company be differentiated on the green dimension?
   a. Does the company have the resources, and understanding of what it means to be green in its industry and internal commitment at the highest management levels to be green?
   b. Can competitors be beaten on this dimension, or are some so entrenched in the green space that competing with them on environmental issues would be very expensive and frustrating?

The questions help green companies to determine how much they should emphasize their greenness as a differentiating feature in its marketing (Ginsberg and Bloom, 2004). The level of investments in environmentally friendly business practices is, however, not covered by these questions, but rather depends on other factors. In accordance with the
answers of the questions above, green companies can choose one of the following strategies: Lean green, Defensive green, Shaded green and Extreme green (see Figure 4-1).

Figure 4-1 The Green Marketing Strategy Matrix

![Green Marketing Strategy Matrix](Ginsberg and Bloom, 2004, p. 81)

4.3.2.1 Lean Green

Companies using the Lean Green strategy try to be good corporate citizens, but they are not focused on publicizing or marketing their green initiatives. Instead, these companies try to reduce costs and improve efficiencies through environmentally friendly activities, thereby creating a lower-cost competitive advantage, not a green one (Ginsberg and Bloom, 2004). These companies want to follow the rules and regulations, but do not expect to see substantial money to be made from the green market segments. Lean Green companies are usually uncertain about promoting their green activities and the green product attributes for fear of being held to a higher standard. The companies are afraid of not being able to live up to its claims or differentiate themselves from competitors (Ginsberg and Bloom, 2004).

According to Ginsberg and Bloom (2004), Lean Green companies do not want to promote their environmental efforts directly to the overall brand, because of the risk that all products of the company then may be pigeonholed as green. Therefore it is safer for Lean Green companies to tie their environmental friendliness to only one brand.
4.3.2.2 Defensive Green

When defensive green is used as a marketing strategy, it is used as a precautionary measure, or as a response to a crisis or to competitors’ actions (Ginsberg and Bloom, 1994). Companies recognize that green market segments are important and profitable constituencies that they cannot afford to separate from. Therefore, they use defensive green strategy in order to enhance brand image and ease the damage (Ginsberg and Bloom, 1994). On the other hand, by using this strategy companies cannot differentiate themselves from competitors on the basis of greenness. In accordance with that, efforts to promote and publicize companies’ environmental initiatives are irregular and minimized, despite those initiatives being truthful sometimes (Ginsberg and Bloom, 1994).

Aggressive promotion of greenness would not be suitable since it would create high expectations that cannot be met. When using the defensive approach, companies engage in activities such as sponsoring smaller environmentally friendly events and programs. Those actions protect their environmental advertising claims from the potential difficulties created by activists, regulators or competitors (Ginsberg and Bloom, 1994). As long as the company is not in the position to obtain a sustainable competitive advantage on the basis of the greenness, but is eager to be environmentally responsible, defensive green is the appropriate strategic approach (Ginsberg and Bloom, 1994).

4.3.2.3 Shaded Green

Shaded Green companies focus on having long-term, system wide, environmentally friendly processes that require both significant financial and nonfinancial commitment (Ginsberg and Bloom, 2004). Shaded Green companies see green activities as an opportunity to create innovative needs-satisfying products and technologies. From this the Shaded Green companies hope to achieve a competitive advantage (Ginsberg and Bloom, 2004). These companies usually have the power and capability to differentiate themselves on greenness, but instead they choose to profit from highlighting other attributes. These attributes are usually the direct, tangible benefits provided to the customers. Shaded Green companies usually sell their products through mainstream channels, where the environmental benefits are promoted only as a secondary factor (Ginsberg and Bloom, 2004). According to Ginsberg and Bloom (2004), this type of promotion is most efficient when promoting products that have the ability to help the consum-
er save on recurring costs, such as energy, fuel and electricity.

4.3.2.4 Extreme Green
Companies using extreme green as a marketing strategy are embodied with holistic philosophies and values. In these companies, environmental issues and responsibility are fully incorporated into the business and product life-cycle processes (Ginsberg and Bloom, 1994). Their practices include life-cycle pricing approaches, total-quality environmental management and the manufacturing for the environment (Ginsberg and Bloom, 1994). Moreover, in most of the cases environmental consciousness has been a major driving force within the company since the very beginning (Ginsberg and Bloom, 1994). Companies that use Extreme green as a marketing strategy mostly serve niche markets and sell their products or services through boutique stores or specialty channels (Ginsberg and Bloom, 1994).

Figure 4-2 Marketing Mix in Green Marketing Strategies

<table>
<thead>
<tr>
<th></th>
<th>Product</th>
<th>Price</th>
<th>Place</th>
<th>Promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAN</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFENSIVE</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SHADED</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>EXTREME</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

(Ginsberg and Bloom, 2004)

Figure 4-2 shows what aspects of the marketing mix the different strategies make environmentally friendly. Companies using lean strategies only green the product, while companies using defensive strategies green both product and promotion. Companies using shaded strategies green product, price and promotion while companies using an extreme strategy green all the four Ps.

4.3.3 The Green Marketing mix
The marketing mix is derived from conventional marketing. It usually consists of four P’s, but every company adapts its favorite marketing mix. Thus the marketing mix is not limited to only four Ps, but can consist of other influencing factors as well.

The concept of the Green Marketing mix was first introduced by Bradley (Bradley,
Bradley first introduced the concept in the late 1980s but has modified it occasionally since then. From the authors’ knowledge, there is not much research done on how companies can green their marketing mix. Bradley is identified as the major researcher in this area. However, because Bradley’s research is limited and is not a quality controlled academic report, it is important that a study of the Green Marketing mix is conducted. As Bradley only touches upon the field of the Green Marketing mix the authors saw an opportunity to contribute to both theory and practitioners. The authors share the opinion with many researchers that claim it is important that the Green marketing mix is studied deeper (Prakash, 2002; Polonsky and Rosenberger, 2001; Baumann and Rex, 2006).

Constructing a good marketing mix is important for every company and is often crucial for the future of each company’s performance. This makes this topic important to research and study. Even though Bradley’s information is not as reliable as the research in a quality controlled academic paper the authors show Bradley’s contribution to this topic.

Another source, which provides information regarding the green marketing mix, is the Queensland Government Environmental Protection Agency. The authors find their environmental report to be useful, however it is not peer reviewed and it is not an academic paper. Again, the authors choose to show what the Queensland Government Environmental Protection Agency believes is important when greening your marketing mix.

The other researchers mentioned in the green marketing mix below all identify some aspects of how to green the marketing mix. For example, Prakash (2002) explains how the product is greened. Polonsky and Rosenberger (2001) explain how price is greened. However, these researchers only touch upon the specific fields and rather concentrate on other things in their study, and this is one possible explanation of why there is a theoretical gap. There is no single researcher that explores how to green the marketing mix. Nevertheless, the authors present a summary of what various researchers have only touched upon when researching other areas. Another possible explanation for the theoretical gap is that the greening of the marketing mix is often practiced and proposed by consultants. As consultants usually do not publish their work in the form of academic papers, this creates a theoretical gap.
4.3.3.1 Promotion
According to Polonsky and Rosenberger (2001), one of the most difficult questions to address within green marketing is: What environmental information should be communicated and how should it be communicated? The primary issue here is that there has to be something important and worthwhile to promote. Many companies have used green washing when promoting themselves, meaning that they promote and claim things they cannot live up to. Today this type of insincere promotional strategy is no longer appropriate and both consumers and regulators do not accept it (Polonsky and Rosenberger, 2001). Therefore it is of great importance to carefully define your promotional message. This is further discussed by Ottman (2008) who claims that it is important to be transparent, so that customers can easily find out if the promoted information is correct. Furthermore, Queensland Government (2006) says that companies should promote its green credentials and achievements. They should also publicize the green initiatives of the company and its employees.

4.3.3.2 Product
According to the Queensland Government (2006), companies who wish to make the most of green marketing have to:

1. Identify customers’ environmental concerns and adjust their products to address these needs; or
2. Develop green products that can give the company a competitive advantage.

Bradley (2007) claims that green products should preferably be constructed in a way so that they can be recycled and reused. Also, products’ waste shall not be damaging to the environment and society. Bradley (2007) also emphasizes the importance of efficient raw material usage, especially for non-renewable materials.

Prakash (2002) is suggesting six ways that describe how products can be made greener. Products will be more environmentally friendly if they are manufactured in the way that they can be:
1. Repaired: extend the life of a product by repairing its parts
2. Reconditioned: extend the life of a product by significantly overhauling it
3. Remanufactured: the new product is based on old ones
4. Reused: design a product so that it can be used multiple times
5. Recycled: products can be reprocessed and converted into raw material to be used in another or the same product
6. Reduced: even though the product uses less raw material or generates less disposable waste, it delivers benefits comparable to its former versions or to competing products

4.3.3.3 Place
The Queensland Government (2006) argues that the choice of where and when to make a product or service available will have a large impact on the customers you attract. Most of the customers are not willing to travel far to buy a green product, but will rather choose closer alternatives (Queensland Government, 2006). Marketers aiming to green their products successfully should preferably position them broadly in the market place (Queensland Government, 2006). This should be done so that they are not only appealing to a small green niche market, but to the wider public as well.

The Queensland Government (2006) also claims it is important that the location is consistent with the image marketers want to project. However, this location has to differentiate marketers from their competitors. This differentiation can be achieved by in-store promotions and visually appealing displays. Furthermore, companies can differentiate themselves by using recycled materials to emphasize the environmental benefits (Queensland Government, 2006). To make place greener, companies have to use more environmentally friendly distribution channels and vehicles. Companies should make sure that their suppliers as well as their distributors are environmentally friendly. This can be done with the usage of environmentally friendly vehicles.

4.3.3.4 Price
The Queensland Government (2006) considers pricing as an important factor of the marketing mix. The Queensland Government (2006) states that most customers are only willing to pay premium prices if they perceive green products to have extra value. Such
extra value can be in the form of improved performance, function, design, visual appeal or taste (Queensland Government, 2006). When paying premium prices, it does not always mean that customers pay more. Often, green products have higher initial out-of-pocket expenses but lower long-run costs (Polonsky and Rosenberger, 2001).

However, a higher out-of-pocket price for green goods is an issue, with consumers generally willing to pay only a small premium for them. Meanwhile, the consumers expect the goods to perform just as well as other affordable alternatives (Polonsky and Rosenberger, 2001). In spite of this, equal performance is not always possible because altering the product composition changes its performance. This presents a potential challenge for marketers who will need to change what consumers define as acceptable (Polonsky and Rosenberger, 2001).
5  Methodology

The purpose of this thesis is to explore how a company makes its marketing mix, the four Ps, greener. To fulfill such a purpose it is important to have an in-depth analysis and detailed knowledge about a company. Therefore, it is often necessary to conduct a case on at least one company. Detailed knowledge can be gained by using a qualitative research approach. This is why the authors chose to use a qualitative approach to this study, rather than a quantitative. A qualitative study is used in this paper so that the authors can go deeper within the chosen subject. This requires in-depth interviews, which are one of the approaches used in a qualitative study (Ereaut, 2007). The authors believe that a qualitative study lets the authors go deeper into the subject, particularly through these in-depth interviews. Interviews enable the authors to be more flexible and avoid a rigid interview structure, as is often the case with for example a questionnaire. Furthermore, this makes it easier to modify the questions for each interviewee.

According to Yin (1994), there are three types of case studies: exploratory, explanatory and descriptive. In this report, the authors use the exploratory research approach. According to Shanks, Rouse and Arnott (1993) an exploratory research focuses on formulating more accurate questions that future research can answer (Cited in Williamson, 2002). Furthermore, exploratory research often uses qualitative research methods such as case studies and phenomenological studies (Williamson, 2002; Yin, 1994). It is often based on secondary research or qualitative approach such as interviews (Yin, 1994). Exploratory research is often used when researchers want to go deep within a subject (Aaker, Kumar and Day, 2001). Further, Shanks et al. (1993) claim that exploratory research is often used in the theory-building stage of research (Cited in Williamson, 2002). Because exploratory research uses qualitative research methods, it provides detailed information about the cases researchers are studying.

5.1  Methods

This section describes why the Rockwool Group was chosen for the case study. Furthermore, it shows how the data was collected and analyzed. The interviewees and the interview questions are also discussed.
5.1.1 Choice of case company

The Rockwool Group is selected as the case company of this thesis because it is a large company with subsidiaries covering all parts of the world. Such a company was chosen because there are many other similar companies who can benefit from the findings of this thesis. Furthermore, the Rockwool Group was chosen because analyzing different subsidiaries gives a wider picture and better insight of how a large company actually works. The Scandinavian market was chosen because the headquarters are located in Denmark. Furthermore, the authors have Scandinavian language skills and are familiar with the market conditions. The Croatian subsidiary, which operates in the Balkan market, was chosen since the authors speak the language and have a good insight into the local market. Furthermore, this subsidiary was chosen because it represents the same company in a different geographic setting with great psychic distance from the other markets. The authors’ cultural knowledge from both regions enabled them to approach each interviewee in a proper manner. The North American market was chosen to provide another perspective on how such a company works. This market was also chosen because there are no language barriers, which enables better access to relevant information. This is not the case with other major subsidiaries, such as those in the Asian market.

5.1.2 Data Collection

When searching for general information about the Rockwool Group secondary data such as the Internet is used. The website of the group provides the authors with the historical background of the company and its subsidiaries. Furthermore, the overview of the current activities of the Rockwool Group is collected through press releases and annual reports on the corporate website. To get in-depth information about the company and its activities the authors conduct several interviews. The interview questions are based upon what the authors cannot retrieve from the secondary data.

5.1.2.1 Interviews

Interviews were used in order to get in-depth questions answered. The group interviewed several employees from Rockwool’s different subsidiaries. A summary of the people interviewed can be seen in Figure 5-1.
Rockwool International A/S is located in Denmark and is responsible for the activities in Scandinavia. Anders Høgstedt, the Human Resource Partner at Rockwool International A/S, participated in a semi-structured interview through telephone and e-mail. Mr. Høgstedt also acted as our mentor and contact person who provided us with feedback frequently. Furthermore, Mr. Høgstedt directed us to the right personnel when seeking interviews from specific departments. Bent Vad Hansen, senior Project Manager at Rockwool International A/S, was interviewed and helped the authors to understand the production process and learn more about the products. Mr. Hansen was interviewed through e-mail, as this was the most convenient solution. Lars Wodschow, Group Communications Manager at Rockwool International A/S also participated in a semi-structured interview through e-mail. Mr. Wodschow helped the authors understand the main reasons for why the Rockwool Group went green, and how it uses environmentally friendly promotion. Maria Viking, the Marketing coordinator at Rockwool Jönköping, also participated in an interview. Ms. Viking answered questions about the marketing activities and the distribution processes in Scandinavia. The authors interviewed Ms. Viking through e-mail and telephone. The reason for this is because the authors wanted to provide similar conditions to the interviewees from the different subsidiaries that discussed the same topic.

Roxul Canada is the Rockwool Group’s representative in the North American market. Peter Setterfield, Vice President of Human Resources at Roxul Canada, was interviewed to see if similar information is communicated through the Rockwool Group. Wendy Pole, Product Manager at Roxul Canada, was asked questions about the products, the production process, the price and the promotion at Roxul Canada. Furthermore, Ms. Pole discussed the distribution processes and how the retailers are chosen. Both the semi-structured interviews at Roxul Canada were through e-mail because of the geographical distance.

Rockwool Adriatic in Croatia is the Rockwool Group’s representative in the Balkan region. Neven Vlacic, Process, Quality and Environment Manager at Rockwool Adriatic, provided the group with a tour and a face-to-face interview that lasted thirty minutes. The tour around the factory was done in order for the group to better understand the environmental aspects of the product and the production process. Furthermore, Mr. Vlacic
was also interviewed and provided the group with in-depth answers regarding the environmental responsibility within the Rockwool Group. The distribution process and the retailers were also discussed with Mr. Vlacic. Nina Suljak, Marketing Manager at Rockwool Adriatic, answered questions about the price and promotion. Ms. Suljak was interviewed through e-mail for the same reasons as Ms. Viking.

Figure 5-1 Summary of interviewees

<table>
<thead>
<tr>
<th>Name</th>
<th>Region</th>
<th>Position</th>
<th>Interview type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Setterfield</td>
<td>North America</td>
<td>Vice president of Human Resources</td>
<td>E-mail</td>
</tr>
<tr>
<td>Wendy Pole</td>
<td>North America</td>
<td>Product Manager</td>
<td>E-mail</td>
</tr>
<tr>
<td>Lars Wodschow</td>
<td>Scandinavia</td>
<td>Group Communications Manager</td>
<td>E-mail</td>
</tr>
<tr>
<td>Bent Hansen</td>
<td>Scandinavia</td>
<td>Senior Project Manager</td>
<td>E-mail</td>
</tr>
<tr>
<td>Anders Høgstedt</td>
<td>Scandinavia</td>
<td>Human Resource Partner</td>
<td>E-mail, telephone</td>
</tr>
<tr>
<td>Maria Viking</td>
<td>Scandinavia</td>
<td>Marketing Coordinator</td>
<td>E-mail, telephone</td>
</tr>
<tr>
<td>Neven Vlacic</td>
<td>Balkan</td>
<td>Process, Quality and Environment Manager</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Nina Suljak</td>
<td>Balkan</td>
<td>Marketing Manager</td>
<td>E-mail</td>
</tr>
</tbody>
</table>

5.1.3 Strengths and Weaknesses of Interviews

There are both strengths and weaknesses of the interviews conducted. The strengths of having semi-structured interviews with follow up questions through e-mail were that the authors do not influence the interviewees. Furthermore, all interviewees that were interviewed through e-mail had similar conditions when answering the questions. More specifically, the authors did not interfere or pressure the interviewees and the authors let them think thoroughly before answering. This also meant that the interviewees could choose when to answer the questions. Other advantages with the interviews conducted were that the authors could pose follow up questions. This gave the authors an opportunity to adjust the questions in order to get better results. From the experience of con-
ducting the interviews, the authors believe that the disadvantages of e-mail interviews are that in some cases questions are not fully understood. This can sometimes result in misleading answers. One of the main advantages of semi-structured telephone interviews is that the interviewer can more easily explain misinterpreted questions than by e-mail. Another advantage of telephone interviews is that it creates a more genuine dialogue than e-mail interviews. Telephone interviews are easier to revise and ask new questions from which you can learn new things. A disadvantage of semi-structured telephone interviews is that sometimes an interviewee does not have time to think thoroughly about the answers. This can result in inadequate answers.

The advantages of face-to-face interviews are that they can make the conversation smoother and it makes it easier to ask follow-up questions. Furthermore, the interviewer can better explain the questions asked, and can easier discuss with the interviewee if some answers are unclear. A disadvantage of face-to-face interviews is that the interviewer can have a negative effect on the interviewee. The interviewer can, for example, have a personality that does not fit the interviewee.

5.1.4 Critical reflection on the Rockwool Group

In order to critically reflect upon the Rockwool Group the authors pose similar questions to the interviewees. The comparison of the results enables the authors to identify any potential differences. Furthermore, this enables the authors to find out the reasons for these potential differences. These differences can occur because the subsidiaries are in different countries and cultures, or because the results are not reliable. To understand the cause of the potential differing results, follow-up questions are asked. Furthermore, to be sure that the results are reliable the authors compare them with secondary information from the Internet. More specifically, the information collected from the interviews and the corporate website is compared to the secondary data retrieved from unbiased sources.

Moreover, the authors visited one of the production facilities in order to get a better understanding of how the company works. The results collected from the interviews are compared to the knowledge the authors gained when visiting one of the subsidiaries.
5.1.4.1 Interview Guide

This section shows what questions the authors have asked the interviewees. An explanation of how and why the questions were constructed follows each figure.

Figure 5-2 Green Marketing Strategy – Interview questions

The questions in Figure 5-1 are constructed by Ginsberg and Bloom (2004) who claim the results of the questions enable green companies to map them in the Green Marketing Strategy Matrix (see Figure 4-1). By determining the strategy the authors see what parts of the marketing mix are greened in the case of the Rockwool Group (see Figure 4-2)
The questions from Figure 5-2 are created with regards to what researchers have only touched upon previously (Polonsky and Rosenberger, 2001; Ottman 2008; Bradley, 2007). The authors posed these questions in order to get deeper and more specific knowledge about this topic whose importance was emphasized by the same researchers. Furthermore the authors believe that the results of the questions provide a broad view on how promotion can be greened.
The questions in Figure 5-3 are posed because the authors believe its results will provide sufficient knowledge on how a company can green its product and production process. Furthermore, Prakash (2002) identifies several ways of how products can be greened and the authors have formed the questions around these identifications. However, the authors have adapted the questions to fit the case of the Rockwool Group from which others similar companies can recognize themselves.

Figure 5-5 Place – Interview questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How does Rockwool plan its distribution?</td>
<td></td>
</tr>
<tr>
<td>2. How does Rockwool choose its retailers and where to situate its factories?</td>
<td></td>
</tr>
<tr>
<td>5. How does Rockwool make its packaging environment-friendly?</td>
<td></td>
</tr>
</tbody>
</table>

The topic Place centers a lot on logistics and distribution issues. Therefore the questions in Figure 5-4 were constructed with the help of logistics literature. Brewer, Button and Hensher (2001) highlight how logistics can be greened. From this the authors have formed their own questions addressed specifically to deal with the topic Place. These questions help the authors identify several examples of how a company can green Place.
The questions in Figure 5-5 were posed in order to see what effects the Rockwool Group’s concern for the environment has on the price. Furthermore, the authors wanted to see what reasoning a green company follows when determining prices. The questions were chosen by careful discussion between the authors on what questions could be relevant. The questions in Figure 5-5 are the result of this discussion.

5.1.5 Data Analysis
The data collected is analyzed with the help of the theories discussed in the frame of reference. The information retrieved from the interviews allows the authors to find out the reasons why the Rockwool Group chose to go green. Furthermore, the interviews help the authors map the Rockwool Group in the Green Marketing Strategy matrix. The data collected also help the authors realize which aspects of the marketing mix the Rockwool Group is greening. This information is gathered and studied, and the results show what steps the Rockwool Group made when greening its marketing mix. From these results the authors can suggest different ways to green the marketing mix.
6 Empirical findings and Analysis

In this section the empirical findings presented follow the structure of the frame of reference. The authors first identify why the Rockwool Group went green and what green marketing strategy it is currently using. This is done so that the readers understand what kind of company the Rockwool Group represents: a lean green, defensive green, shaded green or extreme green company. Thereafter the authors present the findings of how the Rockwool Group greened its marketing mix. An analysis of the empirical findings follows each of the subsections.

6.1 Why did Rockwool go green?

6.1.1 Empirical Findings I

The Rockwool Group has ever since its foundation in 1937 produced stone wool insulation products. However, in the past stone wool production only constituted a small part of its turnover. During the years, however, the group has concentrated on producing stone wool. The interview results show that the reason for this is because it has beneficial long-term effects on the environment, but also positive effects on consumers’ costs.

There are several reasons for why the Rockwool Group went green. In the 1960s the first legal demands for insulation products in new buildings were introduced (Bak, 2003). After this followed several government regulations, where one of the most noticeable regulations requested that stone wool and glass wool should have a special composition in order to be considered environmentally safe (Bak, 2003). This was something that the Rockwool Group’s competitors from the glass wool industry reacted to promptly, which pressured the Rockwool Group to fulfill the regulations as well. The company has been an active participant in the UN Climate Change Conferences around the world. The interview results show that the company uses a proactive approach when dealing with governmental and UN regulations. The Rockwool Group is not satisfied with only meeting the minimum regulations but always strive to make an even greater positive effect on the environment.
A major reason for why the Rockwool Group became green is because of their belief in the importance of being socially responsible (Rockwool International A/S, 2010d). Today the Rockwool Group puts a lot of effort into being socially responsible and it is a central part in the company culture (Rockwool International A/S, 2010d). The company supports United Nations Universal Declaration of Human Rights and the International Chamber of Commerce’s Business Charter for Sustainable Development (Rockwool International A/S, 2010d). Furthermore, The Rockwool Group has in other areas developed its own policies and procedures that assure implementation and devotion to good corporate social responsibility throughout the company (Rockwool International A/S, 2010d). The interview results show that one of the highest priorities of the Rockwool Group is to ensure that they continue making a positive impact on the society wherever they operate. This positive impact should not only be restricted to the society, but should also benefit the environment. Therefore the Rockwool Group’s environmental policy is to always meet or exceed all relevant national and international environmental standards and regulations. In order to do this, the company provides the employees with several detailed manuals including detailed standards and procedure guidelines for all production processes (Rockwool International A/S, 2009).

6.1.2 Analysis I
Theory suggests five reasons why companies go green: Social responsibility, opportunities, governmental pressure, cost or profit issues and competitive pressure (Polonsky, 1994). From inception the Rockwool Group has always had an environmentally friendly product. However, throughout the years the Rockwool Group successively became greener. The main reason for this is because the company early on realized that as a member of a wider community it is important to be socially responsible. This helped the Rockwool Group to achieve profit related objectives and create a competitive advantage. Furthermore, this led to the corporate culture being centered on social and environmental responsibility making the company desirable for both customers and potential employees.

The legal demands mentioned in Empirical Findings I represent factors that made the Rockwool Group go even greener. Today the Rockwool Group does not only fulfill the minimum legal requirements but also always strive to exceed these in order to be even
more environmentally friendly. During the years the legal demands did not only force the Rockwool Group to change, but also its competitors. This lead to an increase in competitive pressure. All of this had positive effects on the environment as the competitors strived to improve their greenness. Even though the competitors had different reasons to go green, the Rockwool Group’s main reason was because it strived to be socially and environmentally responsible. Thus, the case of the Rockwool Group shows that companies can go green because of different reasons that depend on various internal and external factors, such as company culture, competitor pressure and legal demands.

6.2 Green Marketing Strategy

6.2.1 Empirical Findings II

To understand where in the Green Marketing Strategy Matrix (Figure 4-1) the Rockwool Group stands two questions, with its sub-questions, has to be answered. These questions are seen in Figure 5-1 above.

The answers to questions 1, 2 and 3 from Figure 5-1 are provided below. The results from the interviews show that Rockwool can increase revenues by improving on perceived greenness. This is one reason why the Rockwool Group always strives to improve and become more environmentally friendly. However, the results show that the Rockwool Group does not solely focus on revenues and profits, but prioritize to be socially and environmentally responsible. Furthermore, the results show that the Rockwool Group might suffer financially if customers’ perception of the company is that it is inadequately green. The reason for this is that other actors in the industry are also highly competitive green companies. Many customers believe it is important to be green, and it is likely that some of the Rockwool Group’s customers would choose other alternatives if the company was inadequately green.

The results to questions 4 from Figure 5-1 have been gathered from the interviews. They show that the Rockwool Group has both the resources and understanding of what it means to be green in its industry. By always trying to do more than what laws and regulations require, the Rockwool Group shows it is aware of what it takes to be green in its industry. Furthermore, the company is an active participant in the UN Climate
Change Conferences where it in the latest Conference in Copenhagen invested a lot in proposing ways of how to decrease CO₂ emissions.

The Rockwool Group is differentiated on the green dimension by having strong internal commitment and a corporate culture centering on social and environmental responsibility. An example of this is that:

“Top management offers free Rockwool products to its employees in order to make their homes both safer and more environmentally friendly. By doing so, top management tries to encourage employees from all levels to be environmentally responsible.” (N. Vlacic, personal communication, 2010-04-12)

The Rockwool Group believes it is capable of successfully competing with competitors on environmental issues. The interview results show that the damages the production process creates are outweighed by the benefits the products bring in less than five months. This means that the natural resources consumed in the production are very small compared to what the product saves in energy consumption when used as insulation. This can be seen from Figure 6-1, which shows how much energy one square meter (m²) 250mm loft insulation product consumes. An independent study by Schmidt, Jensen, Clausen, Kamstrup and Poslethwaite (2004), that has been subject to third party scrutiny and a peer review, show that the life-cycle assessments of savings from the product use is +18,093 MJ and the emission is -140.2 MJ (Figure 6-1). The Rockwool Group believes that this is a strong argument when competing on environmental issues.

The interview results also show that The Rockwool Group’s products have a longer product life cycle than its competitors’ products. This means that the products do not have to be replaced as often, and thus in this dimension the Rockwool Group’s products are more environmentally friendly. Also, Schmidt, et al. (2004) shows that all insulation materials offer great benefits to the environment. However, Schmidt, et al. (2004) argue that other insulation materials, as for example paper wool and flax cannot per se be characterized as being environmentally preferable to stone wool products.
6.2.2 Analysis II

The Rockwool Group is always trying to do more than government regulations require, rather than just meeting minimum requirements in order to avoid penalties. An example of this is that company participated in the UN Climate Change Conference which most of the competitors did not do. This creates the image of the Rockwool Group being a first mover in its industry. These factors enables the authors to characterize the Rockwool Group as a company using an assertive approach to green marketing in line with McDaniel and Rylander’s (1993) definitions of such companies.

The section Empirical Findings II shows that the Rockwool Group is a company whose customer base mainly consists of green consumers. Therefore it has high substantiality of green market segments in Figure 4-1. Furthermore, Empirical Findings II shows that the Rockwool Group can be differentiated on the green dimension because of its strong internal commitment and green corporate culture. This means that the Rockwool Group has a high differentiability on greenness in Figure 4-1. In accordance to this, the Rockwool Group is mapped as Extreme Green on the Green Marketing Strategy Matrix (Figure 4-1).

Theory suggests that a company with an extreme green marketing strategy is, amongst other things, embodied with holistic philosophies and values, and also manufactures for the environment (Ginsberg and Bloom, 1994). The Rockwool Group is an example of
such a company because of its green corporate culture and its extreme concern for the environment. However, Ginsberg and Bloom (2004) also claim that most of the extreme green companies serve niche markets. This is not the case with the Rockwool Group who rather serves a broad group of customers.

6.3 Green Marketing Mix

Figure 4-2 shows what aspects of the marketing mix need to be greened for the specific green marketing strategies. When a company has an extreme green approach to marketing, it greens all the four Ps in the marketing mix. In this section the authors show how the Rockwool Group has greened its four Ps. The sections are divided into each P where the results from all the subsidiaries are provided. The reason for this is because the results from the different subsidiaries do not differ significantly.

6.3.1 Empirical Findings III – Promotion

1. Does Rockwool promote information on how its distributors affect the environment? If so, then how?

None of the subsidiaries within the Rockwool Group promote how its distributors affect the environment.

2. How does Rockwool promote its products as environmentally friendly?

All of the subsidiaries of the Rockwool Group promote the strengths of their products through their websites with environmental reports and press releases. Moreover, the different websites show how much energy using the Rockwool Group’s products saves. This is shown through videos and pictures. These pictures show everything from the packaging of the products to what awards they have received (Appendix 1). The videos show the effects the Rockwool Group’s products have on the environment and how much they can reduce CO₂ emissions. Beside this, all the subsidiaries participate in numerous industry and government initiatives where they work towards improving environmental responsibilities in the industry. An example of this is the Rockwool Group’s North American representative Roxul.
“Roxul is a member of the North American Insulation Manufacturers Association (NAIMA), United States Green Building Council (USGBC) and the Canadian Green Building Council (CaGBC)” (W. Pole, personal communication, 2010-05-04)

The Rockwool Group’s subsidiaries also use these kinds of activities as an opportunity to promote the greenness of their products. Furthermore, on the packaging of the products there are several labels, which certify the greenness of the product. The Rockwool Group also promotes the product as environmentally friendly through some print media, preferably through unbiased well-known newspapers.

3. Do Rockwool’s customers think that your advertising has a negative impact on the environment?

According to the interviewees the Rockwool Group usually try to avoid publication in print media. However, when it is decided to have publication in print media the Rockwool Group uploads online versions on the corporate website. Most of the other brochures and communications are all easily accessible electronically through the corporate website. Therefore all the interviewees agree upon the fact that their customers are not likely to think that the Rockwool Group’s advertising has a negative impact on the environment.

4. Which marketing strategies does Rockwool use most frequently? Are they environmentally friendly?

The interviews let the authors understand that the Rockwool Group’s separate divisions use different marketing and promotional strategies. They do not use business to consumer (B2C) marketing and business-to-business marketing (B2B) in similar ways. In order to be as green as possible when using B2C, the retail side utilizes product demonstrations, email campaigns and packaging to communicate directly to homeowners. Although the Rockwool Group always tries to avoid print advertising, they utilize it from time to time when the other tools do not expect to fulfill the set goals. The Rockwool Group also tries to be part of media campaigns instead of printing its own advertising,
this in order to act responsibly for the environment but also to reach a broad customer base.

When it comes to B2B marketing the Rockwool Group mainly targets architects, builders, contractors and government agencies. The Rockwool Group’s most important promotional tool used in B2B marketing is attending trade shows. Here they can meet several potential customers where the Rockwool Group can demonstrate the products. An important reason for why the Rockwool Group is keen on attending trade shows is because it is more environmentally friendly than, for example print advertising. However, print advertising cannot be avoided here either but the company tries to minimize the amount of such publications.

5. Do you use trade shows or do you prefer other options when marketing your products to other businesses?

As is stated above the Rockwool Group mostly use trade shows when promoting to other businesses. Moreover, some of the Rockwool Group’s subsidiaries have also started to use trade shows when using B2C marketing. Another promotional tool the Rockwool Group uses in its B2B marketing is direct sales presentations. This is mainly to have a better communication with the customer where the company always try to communicate its environmental message more clearly. The Rockwool Group also tries to strengthen its customers’ consciousness of the environment in these presentations.

6.3.2 Analysis III – Promotion

Theory suggests that it is of great importance to carefully define the promotional message and that this message should be transparent (Polonsky and Rosenberger, 2001; Ottman, 2008). The case of the Rockwool Group shows that companies can be transparent by publishing all their activities and product information on their corporate website. Companies can publish environment reports and show information about emissions caused by the production process. One way in which the Rockwool Group does this is by showing graphs and diagrams on its corporate website (Appendix 2).

Theory also suggests that companies should promote their green credentials and achievements. They should also publicize the green initiatives of the company and its
employees (Queensland Government, 2006). The Rockwool Group’s green achievements are all available on the corporate website (see Appendix 1) and it also promotes this with eco-labels on the packaging of its products. The case of the Rockwool Group shows that it is good to collaborate with environmental groups in order to green the promotion. It is good because the customers can see that a company is truly striving to be environmentally friendly. Furthermore, this can be an opportunity to promote the greenness of a company’s products.

The case of the Rockwool Group shows that there are both environmentally friendly as well as non-environmentally friendly promotional tools. Companies focusing on promoting through the Internet instead of using print media can be perceived as more environmentally friendly. However, if print media cannot be avoided companies might think of making this information available through the Internet. The case of the Rockwool Group also shows that a company can use e-mail campaigns and attend several trade shows in order for its promotion to be perceived as green. Trade shows are considered green as they often have a smaller impact on the environment than print media advertising. Another promotional tool that can be greened is the direct sales. Direct sales presentations have both negative and positive effects on the environment. The Rockwool Group believes that the negative effects of traveling are outweighed by the amount of customers it has persuaded to become greener when using direct sales presentations.

6.3.3 Empirical Findings IV – Product

1. How are your products environmentally friendly? And how is the environment affected during the production process?

The Rockwool Group’s insulation products, such as stone wool, represent an uncommon type of industrial products that saves more energy than it requires. Over a period of 50 years, the Rockwool Group’s product can save over 100 times more primary energy than was used for its production, transport and disposal. Approximately five months after the installation of the stone wool the energy balance becomes positive. This means the amount of energy saved overcomes the amount of energy used for the production. The amount of fossil fuels the Rockwool Group manages to save during manufacturing, transportation and disposal helps to reduce global warming, acid rain and smog.
The Rockwool Group’s insulation products are one of the major CO₂ savers. The amount of CO₂ saved overcomes the amount of CO₂ used in the production four months after installation. The amount of the Rockwool Group’s products sold in 2009 will save more than 200 million tones of CO₂ throughout the next 50 years. This significant reduction in CO₂ emission helps to reduce the global warming. Furthermore, the Rockwool Group strives to improve energy efficiency and increase the usage of low CO₂ emitting fuels during the production process. As a result the Group managed to reduce CO₂ emissions per production unit by 6% in the period 2001 to 2010.

Furthermore, the Rockwool Group’s insulation products reduce acid rain. In the next 50 years, the products will save 160 times more acid rain components than that were emitted during their production. In no more than four months after installation the environmental balance, in respect of acid rain prevention, becomes positive. The Sulphur dioxide (SO₂) created during the production process is the main contributor to the acid rain components. In order to decrease its emission the Rockwool Group uses proper filters and other cleaning equipment.

The Rockwool Group’s products will during their lifetime save more energy than the amount emitted during its production. This will result in a reduction of smog components. Insulation alone cannot eliminate the problem of smog but it can make a significant contribution by using appropriate fuels and filters during the production process. The main contributors to the smog emissions from the Rockwool Group’s production are carbon monoxide (CO), formaldehyde and phenol. Therefore, the company’s factories use afterburner plants and other environmental equipment to minimize smog emissions.

Since the Rockwool Group’s stone wool products are user-friendly products made from safe material, the company provides its customer with information on how to individually install the product. This is supported by the assessment of the World Health Organization’s International Agency for Research on Cancer (IARC), which has removed stone wool from its list of possible cancer causing agents. This decision is based on certified studies that provide no evidence of an increased risk of lung cancer and tumor from occasional or long-term exposure to stone wool fibers.
At the Rockwool Group, energy comprises a major part of the total financial and environmental bottom-line. In accordance to that, energy efficiency improvements are top priority, which will not change in the coming years. Furthermore, energy efficiency is the key of reducing undesirable emissions for the sake of the environments well being. The Rockwool Group has several experts focusing on energy efficient production of stone wool. This is verified when newly acquired factories are modernized with the company’s know-how. In these factories energy efficiency improvements of 50% per production unit have been achieved while at the same time enhancing product quality, environmental performance and delivery precision. As a result energy efficiency improvements of 10% have been obtained on the Group level since 2001.

2. Are your products greener than your competitors’? Can they be reused or recycled?

All the Rockwool Group’s insulation products are manufactured to high green standards. These products can be recycled when a building is deconstructed at the end of its life. When it comes to the question which insulation materials are the greenest, studies have ranked the Rockwool Group’s products high. Schmidt et al. (2004) argue that other insulation materials, as for example paper wool and flax cannot be characterized as being more environmentally friendly than the Rockwool Group’s stone wool insulation products. Furthermore, Schmidt et al. (2004) point out that it takes 2½ times more energy to produce flax insulation compared to stone wool insulation. Moreover, it takes 25% more energy to produce paper wool than stone wool. From this perspective, stone wool production is greener because it uses less energy. Flax products contain around 15% plastic additives. These plastic additives require almost the same amount of energy needed in order to produce a kilogram of stone wool. Paper wool insulation has proven to perform better than stone wool in terms of emissions to air. However, stone wool products have the longest product life cycle, which means that the products do not have to be replaced as often. This is good for the environment because it lowers the total amount of transports and energy consumed to replace the product. Hence, it can be concluded that the Rockwool Group’s products are greener than competitors’ in some aspects. However, it is difficult to claim that it is greener in all aspects because there are several other factors one has to take into consideration.
3. How does Rockwool efficiently utilize waste? Is this waste damaging to the environment?

The interview results show that the Rockwool Group tries to utilize recycled material as often as possible. This has decreased the need for virgin raw materials like fuel and rock and also decreased the amount of waste disposal sites the Rockwool Group has. The Rockwool Group has for several years worked with refining the recycling process. This has primarily been done by compressing stone wool waste and other residue material into recycling briquettes that are melted and made into new stone wool. Today 94% of the Rockwool Group’s stone wool production is either sold or recycled, and 75% of the waste is recycled. This has had great benefits to the environment and the waste landfills have decreased by 35%, more specifically with 43,000 tons, in the periods 2002 to 2008.

The Rockwool Group turns 400,000 tons of waste from other industries into valuable resources. The EU Environment Life Program, which is a EU-funding program for the environment, supports these initiatives. Some of the company’s subsidiaries developed how to use a carbon-containing secondary material from the metal industry in its production process. This is one of the main reasons that have enabled the Rockwool Group to successfully utilize waste. Even though waste itself is damaging to the environment, the Rockwool Group always tries to minimize it and its effects on the environment. The results of this have been significant improvements in the production process where the damages of the production process are outweighed in less than five months by the benefits a typical insulation product brings. Traditionally, the production of stone wool has required a substantial amount of fossil energy and virgin raw materials. The Rockwool Group is determined to significantly lower this amount by substituting virgin raw materials with the use of residuals from other industries. It has developed a project called Waste and Sewage Recycling and Symbiosis in Stone Wool Production that will help the company achieve the goals to better utilize residual materials. More specifically, the company wants to expand the application of the existing technology for using secondary raw material in stone wool production. It wants to have a wider range of waste materials and achieve higher substitution levels. The project aims at enabling stone wool produc-
4. Have colorants, preservatives, additives, etc. been used unnecessarily?

The Rockwool Group’s products have been awarded several awards and eco-labels that require that substances such as colorants, preservatives and additives are used in a proper manner. In accordance to laws and regulations, the Rockwool Group does not use substances classified as carcinogenic or toxic in its products or packaging. Because these substances are not used unnecessarily, the Rockwool Group’s products are exempt from any hazardous classifications.

5. What quality and eco-labels does Rockwool’s products have? Which steps are necessary to acquire and keep them?

The different products have several quality and eco-labels (see Appendix 3). The interview results show that the products within the EU all have the CE mark, which ensures that the products have met the EU consumer safety, the health and the environmental requirements set by the EU. Furthermore, the products are labeled with The European Eco-label, which is awarded only to the very best products that are kindest to the environment and fulfill certain quality requirements (Europa, 2010). The Eco-label criteria are not based on one single factor, but on studies that analyze the impact of the product on the environment throughout its life cycle. Everything from the starting of raw material extraction to production, distribution and disposal has to be environmentally friendly and fulfill the quality requirements (Europa, 2010). In addition to this, the Rockwool Group’s products in Scandinavia have the M1 Label and The Indoor Climate Label. According to Eurofins (2010) the Finnish M1 indoor climate label has the strictest requirements in Europe. The products must not have critical emissions of odors, particles or volatile organic compounds (Eurofins, 2010). According to the Danish Society of Indoor Climate (2002) the Indoor Climate Label ensures that products with this label improve the indoor climate with excellent manner.

In order to keep these labels the Rockwool Group has both internal and external parties testing the quality and environment friendliness of the products and processes. The labels are only awarded verification by an independent body that certifies that the product meets the high environmental and performance standards. Nevertheless, the Rockwool
Group has employees frequently testing the products in order to keep the standards, but also to improve the performance.

### 6.3.4 Analysis IV – Product

According to theory green companies should identify customers’ environmental concern and adjust their products to address these needs. Furthermore, they should develop green products that can give the company a competitive advantage (Queensland Government, 2006). However, the Rockwool Group primarily focuses on benefiting the society as a whole, rather than only its customers’ needs. By doing so, the Rockwool Group expands its potential customer basis and also tries to create a competitive advantage. The case of the Rockwool Group shows that companies can create competitive advantages by having green products and production processes. The Rockwool Group has energy efficiency improvements as a top priority in its production process, which has enabled the company to significantly reduce CO₂ emissions. The case of the Rockwool Group shows that one way to improve energy efficiency and reduce undesirable emissions is to use low CO₂ emitting fuels during the production process. Furthermore, reducing undesirable emissions can be achieved by using proper filters and other environmental equipment. The effects of this are beneficial to the environment as it reduces global warming, acid rain and smog.

Prakash (2002) suggests six ways how products can be greened. They should be able to be: repaired, reconditioned, remanufactured, reused, recycled and reduced. However, this study shows that not all of these factors have to be fulfilled in order for a product to be considered green. The case of the Rockwool Group shows that its products can be recycled, reused, remanufactured and reduced. They cannot, however, be repaired and remanufactured due to the nature of the products but are still considered green products. Therefore it can be concluded that green products do not have to have all the six characteristics suggested by Prakash; they can have a few of the characteristics and still be considered green products. Furthermore, the empirical findings show that products can be further greened by not using additives, colorants and preservatives excessively. Also, the avoidance of substances classified as carcinogenic or toxic in the products and packaging improves the image of the products as being green.
Bradley (2007) points out the importance of utilizing raw materials efficiently and having non-hazardous waste. The case of the Rockwool Group shows that this can be done by using as much recycled materials as possible in the production process. By utilizing recycled material in their production, companies can decrease the need for virgin raw materials and decrease the amount of waste disposal sites. Another way companies can decrease the need for virgin raw materials is by using waste from other industries as an input in their own production. Moreover, companies can develop programs that specialize in improving the utilization of residual material. This can lead to having a wider range of waste materials that can substitute the raw materials. The case of the Rockwool Group shows that another way companies can ensure their products are green is by fulfilling the requirements eco-labels impose. If companies want to keep their eco-labels they have to constantly revise the production process and make sure their products have a positive effect on the environment.

6.3.5 Empirical Findings V – Place

1. How does Rockwool plan its distribution?

The Rockwool Group’s production and distribution of products are planned and coordinated carefully, using a collaborative planning system with professional carrier companies to maximize efficiency and minimize environmental impact. Whenever possible, the most efficient transport mode is used. The Rockwool Group’s transport modes range from vans and trucks to trains and boats.

“Rockwool is also behind efforts to promote the European Modular System (EMS), which uses energy-efficient large-volume trucks and is currently undergoing testing in the EU.” (Kamstrup, Clausen and Ralph, 2010, p. 2).

These trucks can transport more products at the same time than regular trucks. In combination with alternative forms of transport, this can lead to a reduction in the number of kilometers driven.
2. *How does Rockwool choose its retailers and where to situate its factories?*

Whenever the Rockwool Group enters a new market it strategically situates its factory. There are several factors that affect where a factory should be located, for example: how close major customers are, how close the raw material suppliers are and how many retailers there are available. Situating factories in areas that correspond with the factors above facilitates the logistics and the distribution of the products. As stone wool is a product of great volume and low mass its transport is more expensive than the transport of the raw material itself. Therefore the Rockwool Group has to situate its factories and distribution facilities in places that are both close to customers and raw material sources. This is done both in order to be cost efficient and environmentally friendly.

Most of the Rockwool Group’s products are sold to retailers who re-sell them to end users such as craftsmen, contractors and do-it-yourself (DIY) customers. However, the Rockwool Group does not publicly discuss the selection criteria it follows when choosing its retailers. Due to this fact, and the lack of secondary data about this topic, the authors cannot explain how the Rockwool Group chooses its retailers.


The Rockwool Group’s subsidiaries do not offer their products on the Internet to their customers. This is because they prefer to sell their products through retailers. However, the Rockwool Group has provided the opportunity for retailers to order products online. The reason for this is that the Rockwool Group wants to provide better services to its retailers.


The Rockwool Group does not provide door-to-door and just-in-time deliveries, as this requires more frequent transports, which are both costly for the company and the environment. However, the Rockwool Group delivers directly to construction sites when a large amount of products are ordered. Here, a large amount is considered as an order from construction sites rather than regular households. This benefits not only the customer but the environment as well. The customers save time and money because they do not have to visit retailers to pick up the products. The environment benefits because this
reduces the number of travels, as the Rockwool Group does not deliver to the retailers first, but rather directly to the customer.

5. How does Rockwool make its packaging environmentally friendly?

To meet the needs of distributors and merchants, the Rockwool Group’s packaging is compressed and loaded in units. This means that products can be stacked and secured onto pallets, which makes handling and storage easier for the retailers and the customers. Another advantage with having compressed packaging is that more products can be loaded into each truck, which reduces the amount of travels.

6.3.6 Analysis V – Place

Theory suggests that the choice of where and when to make a product available will have a large impact on the customers companies wish to attract (Queensland Government, 2006). This is because most customers are not willing to travel far to buy a green product, but will rather choose closer alternatives. The case of the Rockwool Group shows that it is important to follow this line of reasoning, as it is preferable to have customers, suppliers and retailers close to the production factories. This facilitates both logistics and the distribution of products. In addition with being close to the customers, the case of the Rockwool Group shows that it is important that green companies try to reduce the number of transports. As door-to-door and just-in-time deliveries means more frequent transportation, green companies might instead consider other greener alternatives when transporting their products. These other green alternatives include, for example, using large volume trucks that require less frequent transportations.

According to theory, it is important that the locations of companies’ stores are consistent with the image the companies want to project (Queensland Government, 2006). Furthermore, these companies can differentiate themselves by in-store promotions and visually appealing displays. The authors cannot provide an analysis of this. This is because the Rockwool Group sells its products through retailers, and it is the retailer who deals with these types of issues.

Another way of greening the place is to use environmentally friendly distribution channels and vehicles (Queensland Government, 2006). The case of the Rockwool Group
shows that companies can do this by using alternative transport modes, such as trains, boats and fuel-efficient trucks and vans. However, it is important that companies evaluate which is the most suitable mode of transportation in order to maximize efficiency and minimize environmental impact. The chosen way of transport often depends on the distance and the nature of the products companies transport. The case of the Rockwool Group shows that, if the nature of the product allows to, it is good to compress the packaging in order to efficiently utilize space. This can result in more products being transported simultaneously, which reduces the amount of transports and thus negative effects on the environment.

6.3.7 Empirical Findings VI – Price

1. How does Rockwool set its prices?

The Rockwool Group does not discuss its price setting strategies publicly.

2. Are Rockwool's prices higher than competitors' prices? If so, how do you justify this?

Generally, the Rockwool Group’s prices are higher than competitors’ prices. One of the ways the Rockwool Group justifies this higher price is with the superior quality:

“Rockwool insulation is priced at a premium above other brands because it is a high quality insulation that demonstrates superior value for the money compared to competitors in the marketplace.” Pole, W. (2010)

Another way in which the Rockwool Group justifies the higher price is the environmental friendliness of its products. When using a typical Rockwool insulation product it takes five months until the energy balance becomes positive. Meaning, that within five months more energy is saved than it was consumed during production, transport and disposal.

3. Is a portion of the price perceived to be going to further research in improving the environment?

The Rockwool Group believes that a portion of its price is perceived to be going to a worthy cause and further research. The reason for this is because the Rockwool Group offers several scholarships, sponsorships and donations to local communities that are
environmentally conscious. More specifically, the Rockwool Group sponsors and donates to events that aim to improve the environment. Furthermore, the Rockwool Group provides scholarships to students that study environmental issues. Besides this, the company financially supports projects that deal with issues such as: quality of life, health improvement, education and science, culture, ecology, sport and energy efficiency.

6.3.8 Analysis VI – Price

Theory implies that most customers are only willing to pay premium prices if they perceive a green product to have an extra value (The Queensland Government, 2006). Such extra value can be in the form of improved performance, function, design, visual appeal or taste. The case of the Rockwool Group shows that it is important for companies that set premium prices on green products to provide extra value compared to competitors’ products. The Rockwool Group’s extra value is in the form of high quality products, which already within five months saves more energy than is consumed in the production.

However, premium prices do not always mean that customers pay more. In the long run, some green products provide lower costs (Polonsky and Rosenberger, 2001). Therefore it is important for companies to emphasize that higher out-of-pocket prices can save more money in the long run. Furthermore, the case of the Rockwool Group shows that it is important to let customers know that they do not only pay for the product. If companies let their consumers know that a portion of a product’s price goes to a worthy cause, it can make the consumers more willing to pay premium prices. Companies can do this by, for example, offering scholarships, sponsorship and donations to parties that deal with environmental issues.
6.3.9 Summary

Figure 6-2 Product, Promotion, Place and Price

<table>
<thead>
<tr>
<th>Product</th>
<th>Promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Use low CO2 emitting fuels during the production process</td>
<td>- Be transparent</td>
</tr>
<tr>
<td>- Do not use additives, colorant and preservatives excessively</td>
<td>- Publish all activities and product information on the corporate website</td>
</tr>
<tr>
<td>- Avoid substances classified as carcinogenic or toxic in the product and packaging</td>
<td>- Promote the green credentials and achievements</td>
</tr>
<tr>
<td>- Utilize raw materials efficiently</td>
<td>- Use eco-labels on packaging, and show them on the corporate website</td>
</tr>
<tr>
<td>- Use recycled waste or recycled materials in the production</td>
<td>- Collaborate with environmental groups</td>
</tr>
<tr>
<td>- Use waste from other industries as input in your own production</td>
<td>- Promote through Internet instead of print media</td>
</tr>
<tr>
<td>- Develop programs that specialize in improving the utilization of residual material</td>
<td>- Use e-mail campaigns</td>
</tr>
<tr>
<td></td>
<td>- Promote through trade shows</td>
</tr>
<tr>
<td></td>
<td>- During direct sales, try to convince the customers to be environment-friendly</td>
</tr>
</tbody>
</table>
7 Conclusions
This section concludes the findings in the paper. The conclusions are divided in accordance to the research questions.

7.1 Reasons to go green
There are several different reasons why companies go green, such as social responsibility, opportunities, governmental pressure, cost or profit issues and competitive pressure. The factors that influence companies to go green depend on the environment companies operate in. The Rockwool Group went green because it wanted to be socially responsible. Depending on how green a company wants to be, it has to choose a suitable green marketing strategy.

7.2 Green marketing strategies
Defensive and lean green marketing strategies are only used as precautionary measures to adapt to market conditions. This goes in line with the defensive approach to green marketing where companies do the minimum in order to avoid negative consequences. Thus, companies using a defensive or lean green marketing strategy have a defensive approach to green marketing. Companies that have shaded or extreme green marketing strategies try to create competitive advantages based on their green activities. This goes in line with the assertive approach to green marketing where companies focus on establishing competitive advantages. Thus, companies using a shaded or extreme green marketing strategy have an assertive approach to green marketing. The Rockwool Group is an example of a company using an extreme green marketing strategy, where all the four Ps are greened.

7.3 Greening the marketing mix
The purpose of this paper is to explore how a company can make its marketing mix, the four Ps, greener. In this paper the authors identify several ways of how to green the marketing mix (see Figure 6-2). The case of the Rockwool Group shows that the product, promotion and place are the Ps that can be greened in several ways. The price, on the other hand, is limited in the number of ways it can be greened. When greening, for example, the product companies are in a position to green everything from the produc-
tion process to the packaging. However, when greening the price companies are limited to a few possibilities, such as justifying premium prices.

Many companies do not wish to green all of the four Ps in the marketing mix but rather some of them. Therefore these findings are useful since they do not limit themselves to extreme green companies, but provide guidelines for the other green marketing strategies as well. Such a contribution is important because by greening the marketing mix, companies reduce the negative effects on the environment.
8 Discussion

This paper explores the concept of green marketing and shows how the marketing mix is greened. The fact that the paper is a case study of only one company can be seen as a weakness. Therefore, the authors interviewed employees from three subsidiaries from different parts of the world. This was done in order to get a wider picture of how the Rockwool Group greened its marketing mix. The fact that the interviewees are from different departments in the different subsidiaries makes the results more reliable. However, as most of the empirical findings are collected from the Rockwool Group’s employees it is difficult to assess how accurate their claims are. This is because there is a lack of external and unbiased sources discussing the Rockwool Group together with the issues this paper deals with.

The analysis shows that there are several ways of how to green the product, promotion and place. However, when it comes to price the authors did not find as much information as was expected. The reason for this is because the Rockwool Group only uses premium pricing. Therefore, a similar research on a different company might provide more suggestions on this topic. Perhaps a case study of a company that does not have premium prices would show different results?

The authors identify different green marketing strategies, such as lean, defensive, shaded and extreme green marketing strategies. In order to better understand how companies that employ these strategies work, a deeper analysis of these strategies could be useful. Such an analysis can perhaps make it easier to understand companies’ way of thinking when greening the marketing mix.

Out of the interview results the authors recognized the same way of thinking throughout the Rockwool Group and its subsidiaries. The authors think it would be interesting to see how groups integrate social and environment consciousness into their subsidiaries. Do the subsidiaries always follow the group policies, or do they modify the green approach to each market?

This paper provides specific guidelines on how to green the marketing mix. From a case
study of only one company it is difficult to conclude whether these guidelines are universal or not. Could other case studies show if there are different approaches to greening the marketing mix?
List of references


Appendix 1

Green awards to Rockwool Companies

The Rockwool Group’s efforts within environmental management have resulted in various prestigious green awards throughout the years. Below please find articles and descriptions of some the most recent awards that the Rockwool Group has received:

30 October 2008

Reward for mutual efforts aimed at sustainable transport

Rockwool Benelux and international transport company Van der Wal have managed to win a Lean and Green Award for their unique and lean cooperation in the area of sustainable transport.

21 April 2008

Grodan awarded European Eco-label

Grodan, supplier of innovative substrate solutions for the greenhouse industry, is the first substrate producer to be rewarded with the European Eco-label: the EU environmental quality mark for non-food products and services.

06 June 2006

Rockwool Ltd. wins prestigious environmental award

Rockwool Ltd. has won one of the UK’s most prestigious business awards in recognition of its environmental achievements. On 9 June in Cardiff, the company was awarded a ‘Big Tick’ in the EDF Environmental Impact category of the Welsh Business in the Community Awards for Excellence.

(Rockwool International A/S, 2010)
Appendix 2

Greenhouse gas emissions from Rockwool production 2003 (CO₂ equivalents)

- N₂O: 18%
- CH₄: less than 0.1%
- CO₂: 82%

CO₂ emissions (from production and from electricity produced off-site)

EMISSIONS (IN-FLAT) (Rockwool International A/S, 2010)
Appendix 3

CE Mark  The European Eco-Label

M1 Label  The indoor climate label