Erasmus University Rotterdam Erasmus School of Economics MSc in Accounting and Finance

# The impact of "being green"

Steven Spielmann Student no 357578

Supervisor: Dr. Karen Maas Second Reader: Prof. Dr. Victor Maas

## Abstract

This study examines the relationship between Corporate Social Responsibility and organization's attractiveness and reputation. In detail the following paper concentrates on the "green" dimension of CSR. The study constitutes a survey done with 228 people of different age and educational backgrounds. The results expresses that there is a slight confirmation that people do care about CSR although the results are rarely significant. The results of the survey are compared to the Newsweek's green ranking of 2011. The paper also concludes that most people do not seem to be aware of how much companies engage in green activities, which reveals that companies do not advertise enough about their activities and therefore the impact of trying to be green is relatively small.

# **Table of Contents**

Chapter I: The term Corporate Social Responsibility	5
1.1. Introduction	5
1.2. What is CSR?	7
1.3. Why CSR?	9
1.4. History of CSR	12
1.5. The importance of CSR	14
1.6. Newsweek ranking and other CSR rankings	15
1.7. Best practices of CSR engagement	17
Chapter II: Theoretical Background	19
2.1. Literature Review	19
2.2. Hypothesis development	21
Chapter III: Research Design	24
3.1. Research Model	24
3.2. Methodology	24
3.3. Questionnaire Design	28
Chapter IV: Empirical Results	30
4.1. Descriptive statistics	30
4.2. Hypothesis testing	31
4.3. Other tests	38
4.3.1. Test for differences in gender	38
4.3.2. Anova test for differences in age	39
4.3.3. Anova test for differences in education	39
4.4. Analysis of Question 4 "How green do you think this company is?"	43
4.4.1. Comparison between CSR ranking and obtained ranking	43
4.4.2. Familiarity – overall impression relationship tests	49
Chapter V: Conclusions	51
Bibliography	53
Appendix	58

## List of tables

Table 1: Research Model	24
Table 2: Sample of companies	27
Table 3: Descriptive statistics (age)	30
Table 4: Descriptive statistics (gender)	30
Table 5: Descriptive statistics (education)	31
Table 6: Independent Samples T test (Question 2: overall impression)	33
Table 7: Group Statistics (overall impression)	35
Table 8: Independent Samples T test (Question 3 employee attraction)	37
Table 9: Group Statistics (employee attraction)	38
Table 10: Anova test "Best" and "Worst" 250 companies (Q1-Q3)	40
Table 11: Multiple comparisons (Bonferroni results Q1-Q3)	41
Table 12: Results for the Question "How green do you think this company is?"	43
Table 13: Independent samples T test Question 4 & gender	45
Table 14: Group Statistics for gender	47
Table 15: Mean values for all questions	49
Table 16: Correlations between the questions	50
Table 17: Anova test Q4 & Age	58
Table 18: Multiple comparisons (AGE)	59
Table 19: Anova test (education)	64
Table 20: Multiple comparisons (education)	65
Table 21: Newsweek ranking	68

## **Chapter I: The term Corporate Social Responsibility**

#### 1.1. Introduction

During the last decades, the subject of Corporate Social Responsibility (CSR) gained a lot of attention. Some companies publish beside their annual report a CSR report in order to show the stakeholders the social side of the firm. However companies are often not fully aware of the effects that this kind of marketing actually has on their long-term growth.

Therefore this paper investigates whether companies' engagement in CSR has a significant effect on the consumer's behaviour and in what way it contributes to HR-talent attraction.

First of all high-skilled employees and the phenomenon why a potential consumer decides to buy a specific product or service from a specific company are important for the long-term growth of a company. As an example one can think of a consumer who can decide between two substitutable products, which indeed is part of our every day life. It is quite important for a company to know why a customer chooses a specific product. Of course this can have several reasons but CSR can play an essential role as well. CSR is also present in the signalling theory, which suggests that, as people do not have complete information about a company, they use the available information to interpret the organization's working conditions (Breaugh, 1992; Rynes, 1991). According to this, if organizations publish CSR reports or if the media spread positive or negative information about a company's social attitude, this can be a signal to a person to support an organization by buying their products for instance.

Second, the fact that people choose more expensive organic products instead of food produced from factory farming often results in ethical issues. So, there is a good reason to believe that not only potential customers but also potential employees value ethical norms and values of an organization. Actually, surveys performed in the US confirmed that between 75% and 80% of Americans claim that protecting the environment is important to them (Gutfield, 1991; Hardy, 1991; Aiman-Smith and Bauer, 1996). Furthermore people state that in their daily activities, they take

environmental concerns into account (Bucholz, 1991; Aiman-Smith and Bauer, 1996).

Of course these polls are not fully representative, but still the high percentage shows that the preservation of the environment is a very important concern for a high percentage of people.

Besides, the companies also now realize how important the attraction and the hiring of high quality employees in a competitive market are (Greening and Turban, 2000).

Due to all these statements, the main research question is stated as follow:

"Does CSR make a company significantly more attractive a) in terms of employee recruitment and b) in terms of reputation?"

This topic appears to be very interesting and important for several reasons, but especially for the CEO's of a company as many companies spend a lot of money on CSR activities. Furthermore, if the results show, that CSR makes a company more attractive for customers and employees, it seems plausible and even obvious that the organizations should increase the communication about their CSR activities to attract them. Despite the efforts of some organizations to spend a lot of money in terms of CSR, in order to improve their reputation among others, most people still are not aware of the meaning of CSR and in how far these companies contribute to a "better" way of life. Additionally, if companies are aware that CSR has a great effect on their image in terms of employee attraction, they can use this as a competitive advantage.

These findings would be significant as the attraction of highly skilled and highly educated job applicants becomes more and more critical to an organization's ability to compete on the market (Albinger and Freeman, 2000).

It is also possible that job applicants, which consider the CSR of a company being important, consider themselves norms and values like honesty or transparency being important, which reduces the risk of having employees committing fraudulent actions. If, however it turns out that CSR has not a significant effect, it may be like Milton Friedman in 1970 expressed, that the mere existence of CSR is a signal of an agency problem within a firm and that money should better be spent on value-added internal projects or returned to shareholders (McWilliams et al., 2006).

#### 1.2. What is CSR?

Corporate Social Responsibility (CSR) plays an important role in our society. Although there does not exist a single definition, it's meaning can be easily derived. Dahlsrud (2006) summarized 37 probably most appropriate definitions of CSR in his paper "How Corporate Social Responsibility is defined: An analysis of 37 definitions". In this paper, Dahlsrud develops five dimensions of CSR through a content analysis of existing CSR definitions. These five dimensions consist of the 1) stakeholder dimension, 2) social dimension, 3) economic dimension, 4) voluntariness dimension and finally 5) the environmental dimension.

In search for the right definition of CSR, authors all over the world are developing their own definitions, but some even go as far as to claim ,,we have looked for a definition and basically there isn't one" (Hawker and Jackson, 2001). The definitions in Dahlsrud's paper date from 1980 to 2003 and are mainly of European and American origin. In a 3 step method, Dahlsrud first gathered CSR definitions by a literature review, then he identified the 5 dimensions already mentioned by a content analysis and finally he added the frequency counts from Google to calculate the relative usage of each dimension (Dahlsrud, 2006). Among these 37 definitions, the following one, developed by the Commission of the European Communities in 2001 gathered the most counts on Google: "A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (Commission of the European Communities, 2001; Dahlsrud, 2006 p.7). Another very nice and clear definition was created by the World Business Council for Sustainable Development in 2000: "Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large" (World Business Council for Sustainable Development, 2000; Dahlsrud, 2006 p.7). The comparison of those 2 definitions shows that even though there may be no single definition about CSR, the definitions are similar, in the way that they describe CSR as the responsibility of a company to concentrate not only on the economic activities but to behave also in a social and environment friendly manner.

Although the environmental dimension performed the lowest score in Dahlsrud's paper, there is a simple explanation for this. First, most of prior definitions of CSR did not include the environmental factor and definitions developed subsequently are often based on these earlier definitions and therefore might not include the environmental either. Furthermore some differentiate between "Corporate factor Responsibility" and "Corporate Environmental Responsibility". If Dahlsrud had added the frequencies for corporate environmental responsibility to the environmental dimension, the dimension ratio increased to an equal level than the other dimensions (Dahlsrud, 2006). Second, the paper was accomplished in 2006 and most of the definitions were developed between the years 2000 and 2003, however the importance of a better environmental care gained even more interest during the last years, so it is assumed that in a same analysis nowadays the results would be different. Another important fact, which can be derived from the definitions, is that they do not describe how the companies should influence their CSR. Companies have unlimited ways of contributing to a better social and environmental performance; how they do it is their responsibility.

Another reason why no definition really describes the responsibility of a business simply is the confusion about the term. According to Dahlsrud it is not so much about how CSR is defined but rather what represents the CSR of a business. In other words the challenge for companies is not to define CSR but to incorporate it in the business strategies in the best way. In fact companies were always somehow engaged in CSR, but due to the globalization the importance has increased significantly. Multinational companies are engaged in different countries with different legislations and people of different cultures having different expectations about how a company should run a business. Whereas some may not really care about how much waste a company produces, others might do. So the companies need to adapt much faster to new circumstances and regulations (Dahlsrud, 2006). Business associations like the Business for Social Responsibility (BSR) provide their knowledge and expertise to more then 300 companies worldwide to help them developing business strategies and solutions to the subject of CSR through consulting and research for 20 years now (Business for Social Responsibility, 2012).

## **1.3.** Why CSR?

Ever since its first appearance, supporters and opponents of CSR formulate arguments in favour and against this concept. One of the greatest opponents of CSR, Milton Friedman argued that companies should concentrate on making profits as social issues are not the concern of managers. Other opponents indicate that managers do not have the social expertise to handle social issues and that it prevents business people from concentrating on their primary objective. Supporters of CSR debate that it is in the business' self interest to be socially responsible. There are several reasons for this argument. First, if businesses regulate themselves, they reduce the risk of government intervention or government regulation standards. Second, socially responsible companies have a better working climate, which increases among others employee motivation. Proacting is better then reacting is another argument. Examples of proacting can be of social manner but more importantly also of environmental manner (Carrol and Shabana, 2010).

An example worth mentioning is the oil spill in the Gulf of Mexico in 2010, proacting in the context of better protection and better supervision would have been less costly than the costs BP has to bear now.

Finally companies shall engage in CSR because the majority of the public desires it. Many believe that organizations shall take more responsibility for their workers, shareholders and stakeholders even if this lowers the profits. Even the subject of shareholder maximisation is questionable, as some argue that when a company is doing too well, it is not "behaving" good enough in a way that the firm is exploiting its stakeholders for example. The main questions in accordance with CSR are the following: "Can a firm really do well by being good? Is there a return on investment to CSR? Is CSP positively related to CFP?" (Carrol and Shabana, 2010 p. 92). CSP and CFP mean "Corporate Social Performance" and Corporate Financial Performance" respectively. The concept of CSP is a further development of the term CSR and was developed and defined by Wood as follows: "CSP as a business organization's configuration of principles and of social responsibility, processes of social responsiveness, policies, programs and observable outcomes as they relate to the firm's societal relationships". (Wood, 1991, p. 693). But it is not only about the

stakeholders or shareholders, also the regular public cares about CSR because they want their children to grow up in a better world with good values and norms. Berger et al. (2007) argue that there exist 3 types of CSR integrations in a company. The social values-led model represents organizations adopting CSR strategies for noneconomic reasons. So CSR in this model is fully integrated in the company's business decisions. The other two models, the business-case model and the syncretic stewardship model adopt CSR for "rational reasons" (Carrol and Shabana, 20010 p. 93). In the business-case model, CSR is only adopted if it has a real link to a better financial performance whereas in the syncretic model, CSR is a "management philosophy, an overarching approach to business" (Berger et al., 2007 p. 144; Carrol and Shabana, 2010 p. 93). A lot of researchers try to investigate the relationship between CSR and CFP. In summary, most of the researches seem to confirm that corporate financial performance is positively related to CSR although some other studies reject this positive relationship. Kurucz et al. (2008) overtaken by Carrol and Shabana (2010) determine 4 possible benefits attainable by the companies when engaging in CSR.

The first probable benefit is the "cost and risk reduction". Cost and risk reduction through CSR can be attained by equal employment opportunity and environmental responsible commitments. As already mentioned, when a company tries to reduce its waste production for example to the lowest level possible, governments are more willing to let them regulate themselves and without imposing additional fees for waste. Furthermore social concern is diminished by this fact. In fact, cost savings are part of the main 3 reasons for companies to become more socially responsible (Carrol and Shabana, 2010).

A second advantage is "gaining competitive advantage". Smith (2003) stated that a company could gain a competitive advantage from its CSR strategy if it is "unique". This competitive advantage can be derived from several factors. Turban and Greening (2003) discovered that companies with better reputations attract not only a higher quantity but also a higher quality of job applicants. Furthermore, companies engaging in CSR have it easier to find investors. These specific advantages will be dealt with later on.

A third probable advantage is "Developing reputation and legitimacy". According to Smith (2003) a company's CSR activities attract potential consumers, investors and employees. CSR in relation to reputation is also discussed in another part of this thesis. Cause marketing is a very good and effective way of increasing CSR reputation, General Mills Inc. donated around \$1.5 million through its subsidiary Yoplait USA Inc. to the breast cancer cause. In fact the company donated 10 cents to the cancer cause for every purchase of the Yoplait yogurt (Yoplait 2009a; Carrol and Shabana, 2010). A similar action was started in Germany by a beer brewery called "Krombacher". For every box of beer they sold during a certain amount of time, they sent a specific amount of money to an organization that fights for the persistence of the tropical rain forest.

Creating social reports fulfils the criterion of legitimacy. Nearly all big companies engaged in CSR produce these social reports beside their financial reports, not only to inform their stake- and shareholders about their social responsibilities but also to demonstrate that they are in accordance with the law, social norms and expectations (Carrol and Shabana, 2010).

The last probable advantage considers "seeking win-win outcomes through synergistic value creation". The win-win situation describes a situation in which the stakeholders and the company are satisfied. A possible win-win situation is when a company makes charitable donations to educational causes. In that way, the stakeholders are satisfied as this preserves the local quality of life and this may increase the customer demand (Carrol and Shabana, 2010).

In fact there exist three different points of view how to approach CSR. Either the managers of a company 1) think they have to do it, or they really believe in it and therefore 2) want to do it or simply their shareholders or stakeholders want them to do it, so they 3) need to do it. Companies do not have another choice then dealing with the subject as the news, Internet blogs, magazines and books dwell on it regularly. Businesses not yet engaged in CSR might feel that they have to engage in CSR in the future to stay competitive and for customer retention. As already mentioned, studies showed that CSR engagement can result in a competitive advantage for a company, so managers sharing this opinion may think that they have to engage in CSR in order to stay competitive in the long run. Others simply want to do it because they prefer

working in a company that takes care of its social and environmental responsibilities. The last point of view, considering that managers need to do it can be due to governmental, shareholder or stakeholder pressure.

## 1.4. History of CSR

It is difficult to say when the term of "Corporate Social Responsibility" first appeared in literature. Although most people think that the concept of CSR is quite new, its origin can be found a long time ago. In fact, for centuries the idea that companies also have other responsibilities despite making profits exists (Carrol and Shabana, 2010). This paper however only focuses on the modern era of CSR, which, according to Carrol (1999) starts in the 1950s. It is Bowen (1953), who is considered to have started the modern era of Corporate Social Responsibility when he published his book "Social Responsibilities of the Businessman" in 1953.

He clarifies in his book, that social responsibility is important and must guide businesses in the future. A few other authors wrote books concerning CSR during the next years but it lasted until the 1960s when Davis helped to state what CSR means.

In 1960, Davis argues that CSR does have a positive effect on a company in the long run, as the society pays the company back for its social responsibility. In the last years, a lot of studies have been published confirming this.

McGuire stated in his book Business and Society (1963) that, "The idea of social responsibilities supposes that the corporation has not only economic and legal obligations but also certain responsibilities to society which extend beyond these obligations (Mcguire, 1963 p. 144). This definition is very narrow to our understanding of CSR today.

Ever since a lot of different authors developed new kinds of definitions, most of them were somehow related to each other but until now there does not exist a single definition accepted by everyone.

Another important writer of CSR, worth mentioning was probably Votaw. In his book "The corporate dilemma", in 1973 he described a feeling, which many authors by then had:

"The term [social responsibility] is a brilliant one; it means something, but not always the same thing, to everybody. To some it conveys the idea of legal responsibility or liability; to others, it means socially responsible behavior in an ethical sense; to still others, the meaning transmitted is that of "responsible for," in a causal mode; many simply equate it with a charitable contribution; some take it to mean socially conscious; many of those who embrace it most fervently see it as a mere synonym for "legitimacy," in the context of "belonging" or being proper or valid; a few see it as a sort of fiduciary duty imposing higher standards of behavior on businessmen than on citizens at large" (Votaw, 1973 p. 11).

This actually shows how vague and disputatious this topic is. In 1979, Carrol proposed a four-part definition of CSR for the following reasons:

Managers and firms need to have a (1) basic definition of CSR in order to be encouraged to engage in CSR. Furthermore, they need an (2) "understanding of the issues for which a social responsibility existed" and (3) "a specification of the philosophy of responsiveness to the issues".

In the early 1970s, Moskowitz developed a reputational index in which firms are categorized into "outstanding", "honourable mention" and "worst". Cochran and Robert Wood used this index later in the 1980s to measure the relationship between social and financial performance (Carrol, 1999).

In the 1980s the Norwegian Prime Minister Gro Harlem Brundtland developed another definition of sustainable development, a fractional part of CSR, which is also used by the World Business Council for Sustainable Development. She defines Sustainable Development as "Meeting the needs of the present without compromising the ability of future generations to meet their own needs."

## 1.5. The importance of CSR

Although the opinions are deeply divided upon the issue of CSR, most of the economists agree that it is definitely an important subject, except for Milton Friedman who is probably the most famous opponent of it. Commonly, managers have the opinion that environmental protection is related to an additional cost, which lowers therefore the profit and the competitive level of an organization. However previous studies revealed that an improvement of a firm's environmental behaviour could actually lead to a higher economical and/or financial performance due to several reasons (Ambec and Lanoie, 2008).

One example can be the situation that companies have to pay fines if they produce too much waste. A reduction in waste or in the chemical products harming the environment reduces also the possible fines, which is a gain for the company. Furthermore, when a company reduces its pollution level, it enhances its reputation, which may increase the number of potential customers and therefore its sales volume. Additionally, more environment-friendly companies have some advantages compared to ecologically damaging firms. It is less likely that boycott campaigns or NGOs like Greenpeace try to harm these companies. Furthermore governments may approve faster and easier extensions of factories or simply to build new ones.

Another very important reason for a good environmental performance is the easier access to financial capital because due to the existence of green and ethical funds, only if companies meet certain criteria like a good environmental behaviour, they get access to this money (Ambec and Lanoie, 2007). Furthermore, most banks pay attention nowadays that their potential creditors do not only satisfy their financial criteria like the existence of a certain amount of equity but they make also sure that the financed projects are invested in a socially responsible manner.

Critics on CSR mainly rise because of wrong implementations of CSR strategies and because a participation in CSR is usually related to the fact that managers deter from their main responsibility of maximizing the profits of a company. According to Kramer and Porter (2007) many firms' CSR efforts are ineffective because they pit business against society and they put pressure on companies to think of CSR. What

many companies do not understand is, that CSR is much more than just a charitable cost or a greener product. It generates opportunity, innovation, and competitive advantage for corporations (Kramer and Porter, 2007).

One good example to prove these arguments is Toyota. Toyota's main contribution to CSR is its investment in hybrid-engines. This investment gave Toyota a desirable competitive advantage over the other car manufacturers. Furthermore, in public the brand name of Toyota is being seen as environment friendly, which is better than any kind of advertisement the company could initiate (Kramer and Porter, 2007).

Another good example is McDonald's. When the company changed some of its wrapping materials, it reduced its waste by 30%. This is on the one hand of course favourable to the company but on the other hand it improved its image by producing less waste (Kramer and Porter, 2007).

As already discussed, if companies engage in Corporate Social Responsibility in a proper way, it can result in a competitive advantage for them. This is also showed by different kinds of studies, which reveal that high skilled students prefer working for companies engaged in CSR (Greening and Turban, 1997; Turban et. al., 1998; Greening and Turban, 2000; Turban, 2001; Cable and Turban, 2003).

## 1.6. Newsweek ranking and other CSR rankings

On the 7th of June 2012, the Reputation Institute published a global reputation study. It showed that actually as a company it is more important who you are than what you produce (Reputation Institute, 2012). Interesting is, that a lot of companies being part of the Newsweek ranking take also part in this ranking, where the 100 most respected companies are published. Even though there are some similarities, there are also some big differences. For example, BMW, Sony, Apple, Google, VW, IBM are ranked very good in the Newsweek ranking as well as in this reputation ranking, however Nestlé on the other hand only ranked 351 in the Newsweek ranking gathered place 12 in the reputation ranking. Even though the reputation ranking is not directly a CSR ranking, this shows that there are great differences between all the different rankings.

In fact there exist a huge number of CSR rankings published by consulting firms, magazines and so on. "Newsweek's Green ranking" which is used in this paper, the "Global 100" produced by Corporate Knights, Etisphere Institute's Most ethical companies, Corporate Responsibility Magazine's "100 Best Corporate Citizens", and the "Goodness 500", to name a few examples.

IBM, ranked number 2 in the Newsweek ranking did not reach a high enough score to be part of the "Global 100". The Goodness 500 ranking also lists completely different companies in its ranking. The reasons for these differences are diverse. Corporate Social Responsibility incorporates many different dimensions and most of these different rankings are specialized on different dimensions. Whereas the Newsweek's Green ranking only considers the environmental behaviour of the companies, the Goodness 500 rankings considers how much money the companies spent for charity, and as the name already mentions, Etisphere Institute's Most ethical companies concentrates on the ethical behaviour of the companies. This explains why the rankings are so different, as a company, which tries to be green, is not necessarily a company, which spends also a lot of money for charity. Therefore people need to be very careful to not misunderstand these rankings. Researchers are constantly trying to eliminate or at least to reduce these problems; therefore a lot of researchers base their studies on the KLD database, which is ,,the largest multidimensional database available to the public" (Greening and Turban, 1997 p. 661). This database does not concentrate only on one specific criteria but the KLD rates the companies on nine different dimensions amongst others treatment of women and minorities, quality of services and products, community relations, employee relations and treatment of the environment (Greening and Turban, 1997). However this study does not use the KLD database because they still miss a lot of companies and because the main purpose of this study is not the opinion of people concerning CSR in total but specifically the green level. In fact, the Newsweek group collaborated together with leading environmental research providers Trucost and Sustainalytics to gather the information needed to rank the companies. In the Appendix, a full list of the ranking is attached.

### 1.7. Best practices of CSR engagement

The following examples are mostly derived from Kramer and Porter (2007).

As already mentioned, Toyota's main contribution to CSR is its great investment in hybrid technology which makes the cars more environment friendly. Actually, Toyota just received an award being the best global green brand 2011.

Another company worth mentioning in this context is Volvo. The main focus of this Scandinavian company is the safety of their cars, which is their central element to get a competitive advantage over the other car producers.

Nestlé is another company having adopted a great strategy, which on the one hand improves the life of people and on the other hand results in a competitive advantage. When Nestlé started its business in Moga, India, the company started to build storage rooms to keep the dairy products fresh and cold. Furthermore, sick farm animals were provided with medicine and local farmers were trained in monthly sessions. This not only created a lot of jobs for agronomists, nutritionists and so on, but local farmers were also taught how to improve the quality of their cow's milk. After Nestlé started its business over there, the number of local farmers rose from 180 to currently more than 75000 farmers. This is probably the best example to show how CSR can and should be combined with traditional business strategies, because for a big company like Nestlé these are relatively low costs, but both the Indian community and in the end Nestlé profits from this deal (Kramer and Porter, 2007).

Nike got confronted with the importance of CSR when a huge consumer boycott started after some magazines reported abusive labour practices at some of its Indonesian suppliers in the early 1990s.

But negative publicity is not only for Nike the reason for a better social engagement. The giant oil company Shell had to struggle with huge protests in 1995 due to its decision to sink the Brent Spar, obsolete oil rig, in the North Sea. Apple, as well was being criticized during the last years because its major producer Foxconn appeared in the news due to its bad working conditions and low salaries compared to the high prices Apple asks for its products. To react to this, Apple joined the Fair Labour Association, which should monitor the working conditions in Foxconn.

The technology giant IBM asks potential suppliers for a self-evaluation of their environmental performance, and only those having a positive score are chosen to take part of the extended circle of potential suppliers (Herren et al., 1998; Ambec and Lanoie, 2008).

Starbucks is another company, which incorporates CSR in a very successful way. The famous coffee shop chain uses fair-trade coffee in its cafés. This way of CSR is so successful because despite the fact that fair-trade coffee is much more expensive, Starbucks simply carries the costs over to the customer. The customer on the other side is willing to pay the higher price, on the one hand because of the taste of the coffee, but on the other side also because they know that the higher price they pay is for a good reason. These examples as well as the approaches of Krombacher, Nestlé and Yoplait discussed above are important for a specific reason. They show very well that the pursuit of financial gains is actually consistent with the pursuit of social goals (Carrol and Shabana 2010).

It is important to state however, that the social "power" of the companies is limited, but every company should identify for itself the social or environmental problems it can help to solve. At the end, everyone can take his advantage of it.

## **Chapter II: Theoretical Background**

#### 2.1. Literature Review

Many researchers have tried to investigate the effects of CSR on a company. Among others, Fombrun and Shanley (1990) concluded in their paper that reputation is directly linked to the extent of a firm's social welfare activities. This means that there actually exist studies, which link CSR positively to a firm's reputation. Leblanc and Nguyen (2001) found that customer loyalty increases with a better corporate image and corporate reputation. To measure the customer retention, they integrated four behavioural intentions items which are the 1) customer's intention to consider the company his first choice, 2) the customer's choice for business continuation with a specific company, 3) the customer's intention to recommend a specific company and finally 4) the intention to recommend the company even to friends and family to do business with the specific company. Another researcher specifically analysing the effects of Corporate Social Responsibility is Daniel B. Turban. In several studies he analysed CSR on employee attraction (Greening and Turban, 1997; Turban et. al., 1998; Greening and Turban, 2000; Turban, 2001; Cable and Turban, 2003). Turban and Greening (1997) discovered that firms, which are more frequently present in newspapers, which are advertising more and which are having better community relations and treatment of women and minorities, can present product quality and employee relations that are more familiar to potential job applicants. In the same study, Turban and Greening (1997) discovered that job applicants feel more attracted to organizations rated higher in CSP (Albinger and Freeman, 2000). They draw their sample of organizations randomly from the KLD database and compared these to the results of a survey made with students. As they hypothesized, firms higher in CSP got a better reputation and are more attractive to potential employers. In their study of 2000, Turban and Greening analyse even deeper the possibility of attracting high skilled workers due to their CSP activities. They are convinced that according to the signalling theory, a firm's CSP sends signals to the potential employees about how it could be working for the specific company. Despite this, they also introduce the concept of Social identity theory, which "suggests that employees' self-image is

influenced by the image and reputation of their employers" (Greening and Turban, 2000 p. 258). This strengthens the theory, that it positively affects the attractiveness of an organization when the company engages in socially responsible actions.

In a Forbes survey of 2100 MBA student respondents; the researchers revealed that more than half of the students would accept a lower salary while working in a socially responsible company (Dolan, 1997). The findings of this survey are fascinating for two main reasons. On the one hand MBA students are often considered being the elite of the business students, so in some way this confirms different studies that a high CSR reputation helps attracting high skilled employees. On the other hand, business students/workers often considered being money-grubbing and unethical in their actions to reach their goals might be not as ruthless as their image is.

Furthermore Chatman (1989) determined that people feel more attracted to organizations with ethical norms and values, as they often believe that in these companies the working conditions are better. In an experimental study, Aiman-Smith and Bauer (1996) noted that firms with "a pro-environmental stance were viewed as more attractive employers than firms without such a stance" (Greening and Turban, 1997 p. 660)

Behrend et al. (2009) conducted an experiment, creating two versions of a website for a fictitious organization whereof one version included a pro-environment message and the other did not. Results supported their hypothesis, that the pro-environment message positively affected job pursuit intentions (Behrend et al., 2009).

Turban and Greening (2000) further investigated the linkage between Corporate Social Performance (CSP) and organizational attractiveness as an employer and found out that positive CSP reputations of a company not only attract applicants, but also encourage them to be more willing to interview with such a firm and increase the probability of accepting a job offer of such a firm.

Luce et al. (2001) further investigated the relationship of job applicant's familiarity with a specific company and its attraction level. In fact their aim was to determine the role the familiarity level plays in the relationship between job applicants' attraction to a company and the firm's CSP. In fact they discovered that a firm's attraction level

rises with the people's familiarity level about it. This is one reason why this paper only included familiar multi-national companies.

## 2.2. Hypothesis development

A lot of studies examine the consequences of CSR on employee attraction and reputation, however most studies used the KLD database for their research, whereas this paper concentrates on a real ranking that is based only on the environmental strategy of the organizations. Additionally most studies have been conducted with business students, whereas this study concentrates on participants having different educational backgrounds. This allows analysing whether there are differences between business respondents and participants having a different educational background. This can be important, as business students usually know more about a company's stock exchange value, profits or even compensation schemes, which can influence an organization's attractiveness considerably. Besides there is a greater chance that business students know about CSR and companies relation to it.

Two surveys were sent out to people and the results of them are compared to the Newsweek's Green Ranking of 2011. Respondents are asked to rate overall impression and attractiveness of twenty different companies, whereas in one survey, respondents are told the company's Newsweek ranking and in the other survey they aren't. Beside this, it is assumed that most respondents are not aware of any CSR rankings or ratings and even do not exactly know what CSR is.

With this in mind, the following hypotheses are developed:

Hypothesis 1: If respondents are not aware of an organization's Newsweek ranking, a good Newsweek ranking does not necessarily lead to a positive reputation for a company.

Hypothesis 2: If respondents are aware of an organization's Newsweek ranking, a good Newsweek ranking leads to a positive reputation for a company.

These hypotheses assume that respondents are actually influenced by the "green level" of an organization if they are aware of the company's ranking. If the rankings are not explicitly mentioned, it is assumed, that people do not take any "green level" of an organization into account while making their decisions. This can be due to the fact that they simply do not know about the organization's environmental attitude or they just do not think about it while they make their ratings.

As different studies found out that employee attraction is actually positively related to a company's higher CSR rating, the further two hypotheses can be developed as well:

Hypothesis 3: A higher Newsweek ranking does not necessarily increase potential employee attraction, if respondents are not aware of the specific ranking.

Hypothesis 4: A higher Newsweek ranking increases potential employee attraction if respondents are aware of the specific ranking.

If these assumptions turn out to be true, it is proven that, to attract job applicants and better reputation levels, CSR makes only sense if companies increase the advertisements about their CSR. It is important to note however, that the claiming in H1 and H3 that students are not aware of CSR if not explicitly told is only an assumption!

Furthermore, differences between gender, educational level and age are assumed. Women are considered being more socially responsible in average, and older people have more experiences with working, the treatment of the environment and the employees, therefore the following hypotheses are examined as well:

Hypothesis 5: Female respondents consider CSR more important than male respondents.

Hypothesis 6: The older the respondents are, the higher they rank environment friendly companies and the lower they rank less environment friendly companies.

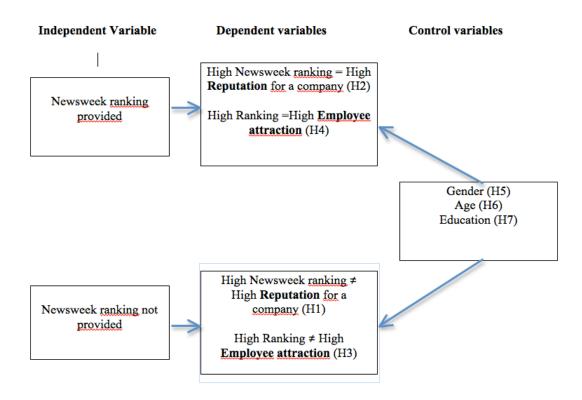
Next, as mentioned in the theoretical part, several studies came to the conclusion that high skilled students have better and more job choices than low skilled applicants, therefore the following hypothesis is tested as well:

Hypothesis 7: Respondents with university studies are more concerned about CSR than the other respondents.

## **Chapter III: Research Design**

#### 3.1. Research Model

**Table 1: Research Model** 



## 3.2. Methodology

This paper is mainly based on the work of Turban and Greening (1997). Worth mentioning is that first it is very difficult to measure Corporate Social Responsibility and second many different organizations and researchers use different measures. As Turban and Greening (1997) did in their work, it was initially intended to take a

sample of organizations from the Kinder, Lydenberg, Domini & Co. (KLD) database, which is "the largest multidimensional CSP database available to the public" (Greening and Turban, 1997 p. 661). However there exist several reasons for not doing so. One reason is that the database does not always offer the most recent data of the organizations. Another reason is that several companies included in this study, are not available in the KLD database. After exploring different CSR ranking lists, the choice fell on the Newsweek's Green Rankings from 2011. In this ranking, the companies' actual environmental footprints, management (policies, programs, initiatives, controversies) and reporting practices are compared (Newsweek, 2011). Although CSR includes many more variables, the environmental attitude clearly is a very important one. The current discussions about global warming seem to prove this.

Besides, it is assumed that one can rely on this ranking, as two leading environmental research companies; Trucost and Sustainalytics assisted in developing the results.

Furthermore, whereas most CSR rankings only include about one hundred companies and often only from the USA, this one includes the five hundred largest publicly traded companies from the US and worldwide. This study concentrates on the worldwide ranking as the surveys are made in Europe, so it is more worthwhile to have companies from all over the world instead of only organizations from the USA. "More than 700 metrics—including emissions of nine key greenhouse gases, water use, solid waste disposal, and emissions that contribute to acid rain and smog—are factored into the Environmental Impact Score" (Newsweek, 2011).

The Newsweek's Green Ranking from 2011 is compared to two surveys. In each poll about 100 students should rate overall impression and attractiveness as a potential employer for a specific company. To do this, twenty companies from different sectors, except for the financial sector, are selected. Firms from the financial sector are not included, as it is assumed that only people having an economical educational background are willing to work for these kinds of firms. As people with different educational backgrounds respond to the survey, this would probably falsify the results. It is possible that people argue that the same holds for IT companies, however the IT companies chosen are interesting to a larger target audience. In this sample, contrary to Turban and Greening (1997) who chose their sample randomly, only well-known companies such as Apple, Microsoft and Google are included. Additionally, as all

these companies are part of the five hundred largest publicly traded companies, the risk that people rate the attractiveness of organizations by the level of their knowledge of these companies is reduced, as well as the risk that bigger companies receive more publicity, since "Turban and Keon (1993) presented evidence that an organization's size influences its attractiveness" (Greening and Turban, 1997, p. 663).

Also, the results get controlled for differences between participants having no background in economics and business people as there exists the chance that business participants rate for a specific firm knowing about its profitability and maybe even about the compensation schemes. In addition, basically most of the studies have been conducted with people studying economics, so no study ever examined whether people with different kinds of interests would provide different results.

In the survey, students should rate twenty companies in terms of their reputation on a five-point scale ranging from "1", meaning a "very poor reputation", to "5" meaning a "very good reputation". In case they do not know the company, the students are also given a "cannot judge" option. Furthermore, the questionnaire asks the performers to only use the "cannot judge" button in case they really don't know the company to prevent that people simply use that function because they don't want to think it through. As there are only well-known companies included, this function should therefore never been used in fact.

The main difference to the method used by Turban and Greening (1997) is that this study uses two surveys. In the first survey, people do not know anything about a Newsweek ranking whereas in the second one, respondents are provided with a small written definition of CSR, a note that the following ranking concentrates on the environmental attitude of a company and the Newsweek ranking of the specific company. This allows examining for a framing effect. If the results between the two groups differ significantly, this reveals that companies would be actually more successful in terms of reputation and employee recruitment by making more advertisement about their environmental attitude.

To measure the organizational attractiveness as an employer, Turban and Greening (1997) used a different sample. However in this study, the same sample of respondents is used.

The following twenty companies are part of the study, whereas the number in brackets is their ranking in the Newsweek's Green Rankings 2011.

**Table 2: Sample of companies** 

IBM (2)	Philips (9)	BMW (37)	Volkswagen (46)	Sony (75)
Microsoft (91)	Apple (117)	Google (134)	Volvo (190)	Total (210)
Adidas (217)	GM (260)	PepsiCo (296)	Shell (320)	Nestle (351)
Nike (355)	BP (376)	Heineken (381)	Christian Dior (396)	Coca-Cola (399)

These companies are picked out on purpose from the top of the Newsweek ranking to the bottom of it. Some companies are also chosen for specific reasons. For instance, it is assumed that BP gets a very bad rating not because people know its CSR ranking, but because it used to be a lot in the media over the past two years because of its huge oil spill in the Gulf of Mexico. This bad reputation will probably be in people's mind when answering the questionnaire. Further on, it is assumed that Apple and Google get a very good reputation, especially Google being famous for its good working conditions will probably get a high employee attraction and reputation. Besides, Apple may be the most famous company worldwide at the moment thanks to its innovative products like the Ipad, the Iphone, etc.

Likewise, by selecting the several companies, at least three companies are of the same sector in order to monitor whether people just do not like a specific sector. In all, there are six firms belonging to the technology sector (IBM, APPLE, GOOGLE, SONY, MICROSOFT, PHILIPS), four firms of the vehicle sector (BMW, VW, GM, VOLVO), three companies from the energy sector (BP, SHELL, TOTAL), three companies from the textile sector (NIKE, ADIDAS, CHRISTIAN DIOR) and three companies of the Food & Beverage sector (HEINEKEN, COCA-COLA, NESTLE, PEPSICO). Unfortunately it is not possible to compare the rankings accurately between the sectors, as mostly the companies within a sector have similar ratings. This can be observed at best in the energy and the food & beverage sector.

To distinguish between good ranked and bad ranked companies, 2 new variables are created. First, the variable "Top 250 companies" includes the 11 best ranked companies of the Newsweek ranking which are placed from "1" to "250". The "Top 250 companies" includes the following companies: IBM(2), Philips(9), BMW(37), Volkswagen(46), Sony (75), Microsoft(91), Apple(117), Google(134), Volvo(190), Total(210) and Adidas(217). Second, the variable "Worst 250 companies" includes the 9 worst ranked companies of the Newsweek ranking. The companies included are the following: General Motors(260), PepsiCo.(296), Shell(320), Nestle(351), Nike(355), BP(376), Heineken(381), Christian Dior(396) and finally Coca-Cola(399).

## 3.3. Questionnaire Design

As already mentioned, the study is split into two surveys of about one hundred people. The questionnaire of both groups will include a question about their educational background and their demographic profile.

Afterwards, on a scale from "1" to "5", the students are asked the following questions based on a study from Luce et al. (2001) whereas "1" corresponds to very low and "5" to very high:

- 1) "How familiar are you with the following company?" (1-5)
- 2) "What is your overall impression of the following company?" (1-5)
- 3) "How attractive is this company to you as an employer?" (1-5)

The first question is included as a control variable to check whether participants rated overall impression and attractiveness of the company based on their familiarity. This is a necessary control as some studies showed that there actually is a relationship between the familiarity and its reputation rating (Luce et al., 2001; Turban, 2001)

However in this study this should not have an effect, as all the companies are familiar to the respondents.

The second group of participants receive the same questionnaire supplementing a small definition of what CSR is and the ranking of the companies' Newsweek's Green ranking.

Furthermore the first group, which does not get a definition of CSR, has to answer a  $4^{th}$  question saying:

4) "How green do you think this company is?" (1-5)

This allows analysing the relationship between the real Newsweek ranking and the ranking obtained from the survey.

## **Chapter IV: Empirical Results**

## 4.1. Descriptive statistics

Before providing the results of the tested hypotheses, the study begins with some descriptive statistics:

Table 3: Descriptive statistics (age)

	AGE		
Category	GROUP A	GROUP B	TOTAL
15 to 24	31	50	81
25 to 29	37	47	84
30 to 34	25	6	31
35 and older	22	10	32

**Table 4: Descriptive statistics (gender)** 

GENDER					
Category	GROUP A	GROUP B	TOTAL		
Female	108	62	46		
Male	120	53	67		

In total, the questionnaire for Group A was sent out to 145 people. Of these 145 people, 115 questionnaires are accepted although around 10 of these were not filled out completely but are still usable. The other 30 questionnaires were excluded either because it was obvious that people did not fill it in seriously (for example the "don't know" button for all the companies used) or because they answered less than half of the questions. The questionnaire for Group B was sent out to 147 people. Of these 147 questionnaires, 113 are accepted in total. The unaccepted questionnaires are excluded for the same reasons as for the questionnaire of Group A. Table (3) shows that in total 228 people took part in the study. Of these 228 people, 35,5% are aged between 15 and 24, 36,8% are aged between 25 and 29, 13,6% between 30 and 34 and 14% are 35 and older. These are important numbers as later on it is analysed whether people of different age categories have different CSR preferences.

Furthermore, in the study, 108 females (47,4%) and 120 males (52,6%) took part, so a more or less equal number which makes it easy to look for differences in CSR preferences between the different genders.

**Table 5: Descriptive statistics (education)** 

EDUCATION					
Category GROUP A GROUP B TOTAL					
studies in economics	30	29	59		
other university studies	57	67	124		
no university studies	28	17	45		

As last demographic variable the study analyses for differences in CSR privileges between the different education levels. This is interesting as previous studies usually only included people with an economical background. In this study, 59 people (25,9%) have finished or are at least attending bachelor or master classes in economical studies, 124 people (54,4%) are absolving or have absolved a different university degree and 45 people (19,7%) have not absolved any university studies.

## 4.2. Hypothesis testing

In this part of the study, the hypotheses are tested in SPSS by performing Independent-Samples t tests and one-way Anova tests. Before performing the tests, a new variable named "GROUP" is created to distinguish between the two different groups who filled in the questionnaire. The variable "GROUP" has a value of "1" for the questionnaire of the people not having any information of the Newsweek ranking and a value of "2" for the people who got a definition of CSR and all the companies' Newsweek ranking.

This means that from this point on, whenever the study mentions Group A, it is meant the group who did not have the Newsweek ranking included in their template and Group B is the one which had the Newsweek ranking included.

The variables for normal distribution should be tested, before the evaluation of the study's results is initiated. With the One-Sample Kolmogorov-Smirnov Test is proved that the data is normally distributed, so it is enough to perform parametric tests. Hypothesis 1 and 2 are the first ones to begin with:

Hypothesis 1: If respondents are not aware of an organization's Newsweek ranking, a good Newsweek ranking does not necessarily lead to a positive reputation for a company.

Hypothesis 2: If respondents are aware of an organization's Newsweek ranking, a good Newsweek ranking leads to a positive reputation for a company.

To test for these two hypotheses, an Independent-samples T test is performed whereas all the company variables for Question 2 ("What is your overall impression about the following company?") are used as test variables and the variable "group" is used as grouping variable.

The results are significant for 3 out of 20 companies. Table (6) and table (7) show the results of the performed t test and the mean values for the 3 significant companies.

**Table 6: Independent Samples T test (Question 2: overall impression)** 

Independent Samples Test						
		Levene's Test for Equality of Variances		t-test	for Equality	of Means
		F	Sig.	t	df	Sig. (2-tailed)
Adidas	Equal variances assumed	4.224	0.041	-0.628	212	0.53
Adidas	Equal variances not assumed			-0.631	211.657	0.529
Apple	Equal variances assumed	0.016	0.899	-0.082	211	0.935
Прріс	Equal variances not assumed			-0.081	204.934	0.935
BMW	Equal variances assumed	4.322	0.039	-1.588	209	0.114
DIVI W	Equal variances not assumed			-1.593	208.928	0.113
British Petrol	Equal variances assumed	2.333	0.128	-0.991	186	0.323
(BP)	Equal variances not assumed			-0.983	173.572	0.327
Christian	Equal variances assumed	0.68	0.411	0.106	194	0.916
Dior	Equal variances not assumed			0.106	193.999	0.915
Coca-Cola	Equal variances assumed	0.399	0.528	2.045	211*	0.042
Coca-Cola	Equal variances not assumed			2.044	209.299	0.042
General Motors	Equal variances assumed	0.047	0.828	-1.214	188	0.226
(GM)	Equal variances not assumed			-1.212	185.187	0.227
Google	Equal variances assumed	0.185	0.667	1.328	212	0.186
Google	Equal variances not assumed			1.327	209.911	0.186
Heineken	Equal variances assumed	0.216	0.643	-0.798	205	0.426
TTOMORON	Equal variances not assumed			-0.798	204.096	0.426
IBM	Equal variances assumed	0.056	0.812	-2.365	169*	0.019
113141	Equal variances not assumed			-2.385	168.523	0.018
Microsoft	Equal variances assumed	0.919	0.339	0.655	212	0.513
WICIOSOIT	Equal variances not assumed			0.653	206.665	0.514

Nestle	Equal variances assumed	0.016	0.9	0.517	210	0.606
Nestie	Equal variances not assumed			0.517	208.817	0.606
Nike	Equal variances assumed	0.132	0.717	-0.72	211	0.472
IVIKC	Equal variances not assumed			-0.719	208.919	0.473
PepsiCola	Equal variances assumed	0.273	0.602	-1.142	209	0.255
i epsicola	Equal variances not assumed			-1.142	208.6	0.255
Philips	Equal variances assumed	0.048	0.827	-1.385	206	0.168
rimps	Equal variances not assumed			-1.387	205.995	0.167
Shell	Equal variances assumed	3.27	0.072	-0.3	208	0.764
Shen	Equal variances not assumed			-0.299	199.295	0.765
Sony	Equal variances assumed	3.094	0.08	-0.422	212	0.674
Solly	Equal variances not assumed			-0.424	209.709	0.672
Total	Equal variances assumed	0.18	0.671	-1.057	204	0.292
Total	Equal variances not assumed			-1.057	203.066	0.292
Volkswagen	Equal variances assumed	0.438	0.509	-0.383	211	0.702
(VW)	Equal variances not assumed			-0.384	210.927	0.701
Volvo	Equal variances assumed	0.074	0.786	-3.052	207*	0.003
VOIVO	Equal variances not assumed			-3.058	206.758	0.003

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

**Table 7: Group Statistics (overall impression)** 

Group witho	N	Mean	
A 1' 1	Group without Ranking	111	3.68
Adidas	Group with Ranking	103	3.77
	Group without Ranking	111	3.91
Apple	Group with Ranking	102	3.92
D) (III	Group without Ranking	110	3.83
BMW	Group with Ranking	101	4.02
D :: 1 D : 1 (DD)	Group without Ranking	100	2.31
British Petrol (BP)	Group with Ranking	88	2.47
Cl. : .: D:	Group without Ranking	102	3.06
Christian Dior	Group with Ranking	94	3.04
0 01	Group without Ranking	110	3.76
Coca-Cola	Group with Ranking	103	3.46
C 1M (CM)	Group without Ranking	98	2.72
General Motors (GM)	Group with Ranking	92	2.88
0 1	Group without Ranking	111	4.21
Google	Group with Ranking	103	4.04
TT ' 1	Group without Ranking	107	3.70
Heineken	Group with Ranking	100	3.81
IDM	Group without Ranking	90	3.09
IBM	Group with Ranking	81	3.42
Minne	Group without Ranking	111	3.68
Microsoft	Group with Ranking	103	3.60
Mantla	Group without Ranking	109	3.19
Nestle	Group with Ranking	103	3.11
NUL.	Group without Ranking	110	3.55
Nike	Group with Ranking	103	3.65
Damai Cala	Group without Ranking	108	2.97
PepsiCola	Group with Ranking	103	3.13
Dhiling	Group without Ranking	107	3.45
Philips	Group with Ranking	101	3.61
Shell	Group without Ranking	108	2.74
Sileli	Group with Ranking	102	2.78
Conv	Group without Ranking	111	3.66
Sony	Group with Ranking	103	3.71
Total	Group without Ranking	105	2.77
10ta1	Group with Ranking	101	2.91
Vollgavogan (VVV)	Group without Ranking	110	3.86
Volkswagen (VW)	Group with Ranking	103	3.91
Volvo	Group without Ranking	107	3.21
VOIVO	Group with Ranking	102	3.62

Table (6) shows that for the three companies, p < 0.05 and therefore significant. For Coca Cola, being part of the "Worst 250 companies" table (7) shows that its mean value is actually lower for Group B than for Group A. This means that the group who knew Coca Cola's bad Newsweek ranking actually has a worse overall impression of Coca Cola than the other group. IBM and Volvo on the other side are part of the "Best

250 companies" and for these 2 companies, actually group B in this case had a better overall impression than group A. So for the cases of Volvo and IBM, the mean values of Group B are higher than for group A, which confirms for these 2 cases hypothesis 2 that if students are aware of an organizations Newsweek ranking, their overall impression of the company is higher for companies which have a good ranking. For Coca Cola, the mean value of group B is significantly smaller than for group A, which also confirms hypothesis 2, but in this case it means that companies with a bad ranking get a lower reputation level when the respondent is aware of its bad ranking.

Although only for 2 out of the 11 "Best 250 companies", the parametric t test is significant, we have a higher mean value for 9 out of 11 companies. Only Microsoft and Google have a lower mean value for group B than for group A.

However by performing the same t-test with the 9 companies ranked between 251 and 500, also 6 out of 9 companies were rated higher by group B. It seems that the mere existence of the CSR ranking increases people's willing to give a higher reputation rating.

Running the t test for Question 1 ("How familiar are you with the following companies") provides the same conclusion. This question of how familiar the following companies are, is just included in the test as a control variable as all the companies should be more or less equal familiar. And in fact, for 19 out of 20 companies, the mean value of Group B is higher than for Group A. So again the mere existence of a CSR ranking seems to change people's rating behaviour. It looks like people believe that they have a better knowledge about a company when they see that the company takes part of a ranking.

All in all, Hypothesis 1 and Hypothesis 2 are rejected as for only 3 out of 20 companies the results are significant.

Next, Hypothesis 3 and 4 are analysed:

Hypothesis 3: A higher Newsweek ranking does not necessarily increase potential employee attraction, if respondents are not aware of the specific ranking.

Hypothesis 4: A higher Newsweek ranking increases potential employee attraction if respondents are aware of the specific ranking.

In this case the t test is **in**significant for every company, although for Volvo it is nearly significant with p = 0,059. So, considering the significance levels, hypothesis 3 and hypothesis 4 are rejected for all the 20 companies. Although there are no significant values, for all the 11 companies being part of the "Top 250 companies", there is a higher mean value for Group B than for Group A. However this is again of no importance because for the 9 "Worst 250 companies" the mean values are also always higher for group B. Despite the fact that also for these companies the attraction to the company seems to be higher just due to the mere existence of the CSR ranking, people rated the companies of the Top 250 higher than the companies of the Worst 250.

In fact, considering the employee attraction, the mean value of the "Top 250 companies" is 3,0412 compared to the mean for the "Worst 250 companies" being 2,60.

The following tables confirm this:

**Table 8: Independent Samples T test (Question 3 employee attraction)** 

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Mean of the 250 best ranked	Equal variances assumed	1.903	0.169	-0.998	204	0.319
companies for Question	Equal variances not assumed			-1	202.856	0.318
Mean of the 250 worst ranked	Equal variances assumed	0	0.989	-0.745	204	0.457
companies for Question 3	Equal variances not assumed			-0.746	203.995	0.457

**Table 9: Group Statistics (employee attraction)** 

	Group without/with Ranking	N	Mean
Mean of the 250 best ranked companies for Question 3	Group without Ranking	105	2.9706
	Group with Ranking	101	3.1146
Mean of the 250 worst ranked companies for Question 3	Group without Ranking	105	2.5503
	Group with Ranking	101	2.6516

Table (8) shows a t test between the mean of the "Top 250 companies" and the groups A and B, as well as a t test between the mean of the "Worst 250 companies" and the groups A and B. As one can see from that table, there are no significant differences between the groups. The second table (9) displays however that although the results are not significant, there is a slight confirmation that people do care about CSR. This can be confirmed as the mean value for the "Best 250 companies" for Question 3 (employee attraction) is 3.1146, whereas the mean value of the "Worst 250 companies" for Question 3 is 2.6516 for Group B.

#### 4.3. Other tests

The next section analyses for differences in results of the previous tests for different age, gender and education categories.

### 4.3.1. Test for differences in gender

Performing an independent-samples t test for the overall impression of the companies (Question 2), the test provides 7 out of 20 significant results. The 7 corresponding companies are: Christian Dior, GM, Google, IBM, Philips, Shell, Total. Surprisingly of these 7 significant differences, female respondents rated 6 companies higher. Men only had a significantly higher overall impression of the company IBM.

Performing the same test between the level of attraction of a company (Question 3) and the variable gender, there are only significant differences for Heineken and

Christian Dior. However these results are not surprising and have nothing to do with any CSR engagement or ranking as it is obvious that women prefer working for Christian Dior to men, and male respondents prefer working for Heineken to women.

Therefore hypothesis 5 that female respondents care more about CSR is rejected.

### 4.3.2. Anova test for differences in age

There are no significant differences between the different age categories; therefore hypothesis 6 that older people care more about CSR is rejected.

## 4.3.3. Anova test for differences in education

Before beginning the interpretation of the results of this test, a levene's test of Homogeneity of variances needs to be performed. The test is significant for one case so the Games-Howell results need to be considered for this question. For all the other parts, the Bonferroni results are valid.

The Bonferroni and Games-Howell results are used in addition to the normal One-way Anova test because the Anova only tells something about the possibility that there exists a difference between the groups but it does not say anything about what/where the difference actually is.

#### 4.3.3.1. Results

The next table (10) provides an Anova, Bonferroni and Games-Howell test for the variables "Best 250 companies" and "Worst 250 companies" for the 3 questions.

First we look at the Anova table, which tells something about the chances of differences.

Table 10: Anova test "Best" and "Worst" 250 companies (Q1-Q3)

		df	F	Sig.
Mean of the 250 best ranked companies for	Between Groups	2	4.351*	0.014
Question 1	Within Groups	225		
	Total	227		
Mean of the 250 best ranked companies for	Between Groups	2	0.95	0.388
Question 2	Within Groups	211		
	Total	213		
Mean of the 250 best ranked companies for	Between Groups	2	8.337*	0
Question 3	Within Groups	203		
	Total	205		
Mean of the 250 worst ranked companies for	Between Groups	2	3.031*	0.05
Question 1	Within Groups	224		
	Total	226		
Mean of the 250 worst ranked companies for	Between Groups	2	1.835	0.162
Question 2	Within Groups	211		
	Total	213		
Mean of the 250 worst ranked companies for Question 3	Between Groups	2	8.096*	0
	Within Groups	203		
	Total	205	the 0.05 level	

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

As one can see from the previous table (10), the Anova test is significant in 4 out of 6 cases. Only for question 2 there seems to be no big differences between the different groups of educational level. Next, in table (11), the Bonferroni results for the remaining questions 1 and 3 are analysed.

Table 11: Multiple comparisons (Bonferroni results Q1-Q3)

Dependent Va	riable			Mean Difference (I-J)	Sig.
		studies in	other kind of university studies	0.10107	1
Mean of the		cconomics	no university studies	.45926*	0.016
250 best ranked	D ( :	other kind of	studies in economics	-0.10107	1
companies for Question	Bonferroni	university studies	no university studies	.35819*	0.04
1		,	studies in economics	45926 <sup>*</sup>	0.016
		no university studies	other kind of university studies	35819 <sup>*</sup>	0.04
	Bonferroni ot un st	studies in economics	other kind of university studies	.67518*	0
			no university studies	0.39611	0.172
		other kind of university studies	studies in economics	67518 <sup>*</sup>	0
			no university studies	-0.27907	0.385
		no university studies	studies in economics	-0.39611	0.172
Mean of the 250 best ranked			other kind of university studies	0.27907	0.385
companies for Question		studies in	other kind of university studies	.67518*	0
		economics	no university studies	0.39611	0.109
	Games-	other kind of	studies in economics	67518*	0
	Howell	university studies	no university studies	-0.27907	0.301
		no universit	studies in economics	-0.39611	0.109
	no university studies	other kind of university studies	0.27907	0.301	

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

The Bonferroni test reveals that for Question 1 (familiarity level) of the "best 250 companies", the mean is significantly different between participants with an economical background compared to respondents with no university studies.

It is also significant between respondents with no university studies and respondents with other university studies.

For Question 1 "Worst 250 companies" a significant difference between economic respondents and no university studies respondents can be stated. The means are 3,87 and 3,43 respectively.

So in conclusion, people without university studies seem to be less familiar with the 20 companies from the questionnaire. This can also be confirmed by the means of the following groups. Whereas the mean value for Question 1 "best 250 companies" is 4,06 for respondents having an economical background, and 3,96 for people with other kinds of studies, the mean value is only 3,6 for the people without university studies.

As already mentioned it is necessary to consider the Games-Howell statistics for the results of Question 3 for the "Best 250 companies". According to the Games-Howell statistics there is a significant difference for respondents with different university studies and respondents with studies in economics.

The mean has a value of 3,48 for the economic respondents and only 2,8 for the other group.

For Question 3 "Worst 250 companies", one can observe a significant difference between economic respondents and different kinds of university studies participants. The means are 3,00 and 2,378 respectively.

To summarize, differences between the different educational levels could be proven right during these analyses. The last example actually shows that for people without university studies, it seems to be even more important that companies are green. This rejects the different hypotheses from other studies which state that actually the highest educated students are the ones who care most about CSR because they usually get more job offers and can therefore choose which company they want to work for.

Therefore hypothesis 7 that people with university studies care more about CSR when applying for a job is rejected as well.

# 4.4. Analysis of Question 4 "How green do you think this company is?"

The respondents of Group A, which are those not provided with a CSR ranking, answered an additional Question 4 "How green do you think this company is?" This section analyses the green level people from this group distributed to the companies of the sample and compares them to the real ranking of the Newsweek ranking.

# 4.4.1. Comparison between CSR ranking and obtained ranking

Table 12: Results for the Question "How green do you think this company is?"

	N	Mean	CSR ranking	Ranking according to respondents
Adidas	95	2.78	11	4
Apple	98	2.76	7	5
BMW	99	2.6	3	10
British Petrol (BP)	93	1.54	17	20
Christian Dior	91	2.35	19	16
Coca-Cola	98	2.51	20	12
General Motors (GM)	93	2.11	12	17
Google	98	3.19	8	1
Heineken	95	2.88	18	2
IBM	80	2.63	1	8
Microsoft	97	2.72	6	6
Nestle	98	2.38	15	15
Nike	97	2.62	16	9
PepsiCola	96	2.41	13	14
Philips	97	2.55	2	11
Shell	99	1.67	14	18
Sony	96	2.51	5	12
Total	94	1.65	10	19
Volkswagen (VW)	97	2.8	4	3
Volvo	94	2.7	9	7

Table (12) shows that between 90 and 100 respondents rated the greenness level of the 20 companies. Not surprisingly, the 3 oil companies "BP", "Shell" and "Total" are rated as being the least green companies. "Total", which received the best Newsweek ranking of these 3 companies was not considered being greener by the respondents. This actually reveals that even if companies in the oil sector try to be greener, people will not consider them taking care of the environment as oil companies are in people's mind hurting the environment.

For the rest of the companies, the results are more or less equal with mean values between 2 and 3, except for Google, which is not surprisingly as well, as Google might be the most famous company for its great working conditions and innovativeness. It is possible that for this reason respondents were thinking that this company also takes good care of the environment. The average calculated of all these means is 2,47. Therefore at least the mean of the "Top 250 companies" should be above 2,47. This is actually the case for 10 out of the 11 companies. Only TOTAL, being part of the "Top 250 companies" got a much worse ranking by the respondents than by the Newsweek ranking. On the contrary, the mean of the "Worst 250 companies" should be below 2,47. This is true for 6 out of 9 companies. As for most companies, the differences are not significant; one cannot claim that people were really aware that the firms being part of the "Worst 250 companies" are less green than the others. It could also be a coincidence but still it is possible that somehow people actually are aware of some companies' efforts being greener, as for 6 out of 9 and 10 out of 11 companies people rated the companies at least similar to its real Newsweek ranking. Comparing the Newsweek ranking to the ranking obtained from the survey, it is noticeable that for Microsoft and Nestle, the rankings are equal. For some others, like Volvo, Pepsi, VW, BP and Christian Dior, the rankings are also quite similar. Only for Heineken, there is a big difference between the 2 rankings: Whereas respondents rated the company as the second greenest, its real Newsweek ranking is much worse.

Next, the independent-samples t test analyses the results of Question 4 to the variable "gender".

Table 13: Independent samples T test Question 4 & gender

		Levene's Equal Varia	ity of	t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Adidas	Equal variances assumed	1.034	.312	.093	93	.926
Adidas	Equal variances not assumed			.092	86.271	.927
Apple	Equal variances assumed	1.982	.162	004	96	.997
Арріе	Equal variances not assumed			004	85.694	.997
BMW	Equal variances assumed	.253	.616	-1.475	97	.143
DIVI W	Equal variances not assumed			-1.468	93.217	.146
British Petrol	Equal variances assumed	.153	.696	049	91	.961
(BP)	Equal variances not assumed			049	90.442	.961
Christian Dior	Equal variances assumed	1.835	.179	.334	89	.739
Christian Dioi	Equal variances not assumed			.330	81.725	.742
Coca-Cola	Equal variances assumed	.656	.420	379	96	.705
Coca-Cota	Equal variances not assumed			377	90.470	.707
General Motors	Equal variances assumed	4.667	.033	697	91	.487
(GM)	Equal variances not assumed			692	83.410	.491
Coords	Equal variances assumed	1.557	.215	381	96	.704
Google	Equal variances not assumed			378	90.369	.706

Heineken	Equal variances assumed	3.491	.065	-2.142	93*	.035
пешекеп	Equal variances not assumed			-2.093	76.974	.040
IBM	Equal variances assumed	.035	.852	-1.056	78	.294
IDIVI	Equal variances not assumed			-1.056	76.676	.294
Microsoft	Equal variances assumed	.750	.389	602	95	.549
WHEIOSOIT	Equal variances not assumed			597	88.287	.552
Nestle	Equal variances assumed	.109	.742	1.024	96	.308
ivestie	Equal variances not assumed			1.018	87.988	.312
Nike	Equal variances assumed	.183	.670	137	95	.891
INIKE	Equal variances not assumed			137	90.722	.891
Panci Colo	Equal variances assumed	1.530	.219	612	94	.542
PepsiCola	Equal variances not assumed			606	87.003	.546
Philips	Equal variances assumed	1.042	.310	.542	95	.589
Finitps	Equal variances not assumed			.539	90.334	.591
CL-II	Equal variances assumed	1.490	.225	.083	97	.934
Shell	Equal variances not assumed			.082	86.284	.935
Som:	Equal variances assumed	2.191	.142	.296	94	.768
Sony	Equal variances not assumed			.291	83.543	.772
Total	Equal variances assumed	.412	.523	.517	92	.607

	Equal variances not assumed			.513	85.633	.610
Volkswagen	Equal variances assumed	.038	.846	.431	95	.667
(VW)	Equal variances not assumed			.433	94.129	.666
Volvo	Equal variances assumed	.439	.509	.445	92	.657
	Equal variances not assumed			.445	89.214	.657

 $<sup>\</sup>ensuremath{^{*}}.$  The mean difference is significant at the 0.05 level.

**Table 14: Group Statistics for gender** 

	Gender	N	Mean
Adidas	Female	52	2.79
Adidas	Male	43	2.77
Apple	Female	53	2.75
	Male	45	2.76
DMW	Female	52	2.44
BMW	Male	47	2.77
Duitish Datus (DD)	Female	45	1.53
British Petrol (BP)	Male	48	1.54
Chairdian Dian	Female	49	2.39
Christian Dior	Male	42	2.31
0 01	Female	53	2.47
Coca-Cola	Male	45	2.56
C 1114 (C) 0	Female	48	2.04
General Motors (GM)	Male	45	2.18
G 1	Female	52	3.15
Google	Male	46	3.24
TT : 1	Female	51	2.69
Heineken	Male	44	3.11
IDM	Female	40	2.50
IBM	Male	40	2.75
Mississi	Female	53	2.66
Microsoft	Male	44	2.80
N. d	Female	55	2.47
Nestle	Male	43	2.26
NUL.	Female	53	2.60
Nike	Male	44	2.64
Dan C.C. 1.	Female	52	2.35
PepsiCola	Male	44	2.48
DI.T.	Female	52	2.60
Philips	Male	45	2.49
Q1 11	Female	52	1.67
Shell	Male	47	1.66
C	Female	52	2.54
Sony	Male	44	2.48

Total	Female	49	1.69
	Male	45	1.60
Volkswagen (VW)	Female	52	2.85
	Male	45	2.76
Volvo	Female	51	2.75
	Male	43	2.65

Table (13) displays that there is only significant difference between the genders for Heineken. For Heineken, the mean value of the 51 female respondents is 2,69 whereas the mean value for the 44 male respondents is 3,11. Compared to the other companies 3,11 is a relatively high mean. A possible explanation for the difference between the genders is simply that men usually like beer more than women do and therefore they may give a better green level. Another possible explanation is that the bottle of Heineken is actually green, so it is possible that men set the green colour of the bottle in relation to the greenness level. However this is only an assumption, which could be analysed in a different study.

In the next 2 Anova tests, Question 4 is compared to the variable "age" and the variable "education" respectively. The corresponding tables are included in the Appendix.

For the variable "age", the Anova test is significant for the companies "BP" and "Shell". As the Levene test for those 2 variables is significant as well, the Games-Howell results are considered. The table shows that there is a significant difference for "BP" between the age group of "15 to 24" and the age group "30 to 34". The means for those two age groups are 1,22 and 2 respectively. Not surprisingly after the huge oil spill of 2010, both groups consider the greenness level of "BP" as very low. However the younger group, which probably includes more future job applicants, seems to consider the oil spill even worse than the older group, which could explain the difference between the two groups.

Although for Shell, the Anova test is significant, the Games-Howell is not. However again, the mean difference between the young group (mean value = 1,54) and older group (2,11) is quite high.

Considering the differences of Question 4 for the different educational levels, the p value is significant for "BMW". In detail, it is significant for "people with other kinds of university studies" and "people with no university studies". The corresponding

means are 2,31 and 3,05 respectively. For Volvo, the Anova was nearly significant with a p=0,052. In this case as well, the respondents with no university studies considered the company greener but why this is the case is unknown.

# 4.4.2. Familiarity – overall impression relationship tests

As already mentioned in the part of theoretical background, Luce et al. (2001) discovered that the familiarity with a firm could have a positive effect on the reputation and attraction of a company. Although this study tried to eliminate this effect by only using well-known companies, a compare of means is undertaken between the mean values of question 1 and question 2. Surprisingly, the results confirm, that in this study as well, the familiarity level had an effect on the rating of overall impression.

Table 15: Mean values for all questions

Commonica	Mean values Q1	Mean values Q2	Mean values Q3
Companies	(Familiarity)	(Overall impression)	(employee attraction)
Adidas	4.19	3.72	3
Apple	4.25	3.92	3.4
BMW	3.9	3.92	3.37
British Petrol (BP)	3.09	2.38	2.11
Christian Dior	3.16	3.05	2.43
Coca-Cola	4.41	3.62	2.99
General Motors (GM)	3.2	2.8	2.38
Google	4.51	4.13	3.47
Heineken	3.86	3.75	2.7
IBM	3.11	3.25	2.66
Microsoft	4.19	3.64	3.02
Nestle	3.99	3.15	2.75
Nike	4.2	3.6	3.06
PepsiCola	3.6	3.05	2.53
Philips	3.72	3.53	2.9
Shell	3.76	2.76	2.31
Sony	4.05	3.68	3.05
Total	3.52	2.84	2.32
Volkswagen (VW)	4.15	3.89	3.31
Volvo	3.43	3.41	2.76

The companies BP, Christian Dior, GM, IBM, Pepsi, Philips, Shell, Total and Volvo received a lower familiarity level than the average familiarity mean 3,81.

Furthermore, the companies BP, Christian Dior, GM, IBM, Nestlé, Pepsi, Shell and Total received a lower overall impression value than the average overall impression mean 3,4.

The same holds true by comparing Q1 with Q3: For 8 out of 9 companies below overall mean value of the familiarity level, the attraction as an employer is also below the mean value.

In summary, this means that for 7 out of the 9 companies, which had a lower mean value for Question 1 also had a lower mean value for Question 2 and for 8 out of 9 companies a lower value of firm familiarity corresponds to a lower value of firm attraction.

The following correlation table also confirms the relationship between the familiarity of the companies and the overall impression as well as the employee attraction.

**Table 16: Correlations between the questions** 

		Mean of all companies for Question 1	Mean of all companies for Question 2	Mean of all companies for Question 3
Mean of all	Pearson Correlation	1	.391**	.202**
companies for question 1	Sig. (2-tailed)		.000	.004
	N	228	214	206

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# **Chapter V: Conclusions**

The main purpose of this thesis was to extend the research of Turban and Greening's paper concerning the effect of Corporate Social Responsibility on job applicant attraction and reputation. Instead of only concentrating on business students, this paper investigated the opinion on CSR from all kinds of different people. Furthermore this study reduced some limitations of Turban and Greening's paper by taking more or less equal big and well-known companies instead of a randomly selected sample of companies. Additionally, this paper did not use the KLD database for comparison but concentrated on the green dimension of CSR, which enables it to managers to see how important the treatment of the environment by companies for people is. Whereas some authors found that future business people do care about the Corporate Social Responsibility of a company (Albinger and Freeman, 2000; Cable and Turban, 2003; Montgomery and Ramus, 2003), this study discovered that at least in the green dimension, people without university studies care even more. Considering the research question, in this study, CSR did not make a company significantly more attractive in terms of employee recruitment and in terms of reputation.

This paper contributed to previous research in several ways. As the results are only significant in few cases, it is demonstrated that people do not consider companies' green activities so much in their choices. Even though the results show the opposite of the results of Turban and Greening (1997), in some way they are also consistent because Turban and Greening concluded that good working conditions seemed to be a more important signal than a good care of the environment. It also contributed to science by reducing some limitations of the research of Turban and Greening in some ways. First it included different kinds of people instead of only business students, and second it tried to remove or at least reduce the effect big companies can have and therefore falsify the results. From an economical point of view, organizations do not necessarily have to spend millions of dollars in charity organizations to improve their CSR image. More important is that they improve their image by having good working conditions, are not in the media because of scandals and so on. This is also confirmed by the ranking developed from this survey, in which people placed Google at first place and BP on the last place. People do not seem to

know much about companies' CSR activities so it is absolutely necessary that companies advertise more about their engagements. It is not enough to publish CSR reports or to mention something about the CSR activities in the annual report, as regular people usually do not look at those reports.

The study also revealed that oil companies have it much more difficult to convince people that they try to become greener and with this to improve their reputation and their attractiveness.

This paper has several limitations though. First there exist a huge number of different CSR rankings in which companies are often differently ranked. Therefore it is possible that taking another ranking than the Newsweek ranking as basis could have provided completely different results. Second, the respondents were not paid any fees to take part on this survey. This increases the risk that respondents did not make a real effort to complete it faithfully. Furthermore, the study only consisted of about 220 people in total, which can be argued not to be representative. Another limitation is that the study does not distinguish between people provided with the CSR Newsweek ranking and people knowing already about this ranking. There is a possibility that people from Group A knew about what CSR is an even about the ranking, but the study assumes that people from group A do not know it.

Further research on this topic is necessary. One possibility is to include a further question asking for the knowledge of CSR and compare it to the results obtained. As this study concentrates only on the green dimension of CSR, following studies could concentrate on other dimensions. The study also revealed that the mere existence of rankings in a survey increases the voluntary to give higher ratings, so further research could be done concerning the effects of rankings on human behaviour. Other papers could also better distinguish between people having any knowledge about CSR and people who have never heard anything about CSR and look for differences.

# **Bibliography**

Albinger, H. S., Freeman, S.J. (2000). "Corporate social performance and attractiveness as an employer to different job seeking populations" *Journal of Business Ethics* 28: 243-253.

Aiman-Smith, L., Bauer, T. N (1996). "Green career choices: The influences of ecological stance on recruiting" *Journal of Business and Psychology* 10: 445-458.

Ambec, S., Lanoie, P. (2007). "When and why does it pay to be green?" *Cahier de recherche* n° *IEA-07-14*: 1-40.

Ambec, S., Lanoie, P. (2008). "Does it pay to be green? A systematic overview" *Academy of Management Perspectives 22: 45-62.* 

Baker B.A., Behrend, T.S., Thompson, L.F. (2009). "Effects of pro-environmental recruiting messages: The role of organizational reputation" *Journal of Business and Psychology*, 24: 341-350

Barber, A.E., Hillman, A.J., Luce, R.A. (2001). "Good Deeds and Misdeeds: A Mediated Model of the Effect of Corporate Social Performance on Organizational Attractiveness" *Business Society*, 40: 397-415.

Berger, I.E., Cunningham, P., Drumwright, M.E. (2007). "Mainstreaming corporate social responsibility: developing markets for virtue". *California Management Review* 49: 132–157.

Bowen, H. R. (1953). "Social responsibilities of the businessman" *NewYork: Harper&Row*.

Breaugh, J. A. (1992). "Recruitment: Science and practice" *Boston: PWS-Kent*.

Brown, B., Perry, S. (1994). "Removing the financial performance halo from Fortune's "most admired" companies" *Academy of Management Journal* 37: 1347-1359.

Bucholz, R. (1991). "Corporate responsibility and the good society: From economics

to ecology" Business Horizons 34: 19-31.

Business for social Responsibility, retrieved from http://www.bsr.org/

Cable, D.M., Turban, D.B. (2003). "Firm reputation and applicant pool characteristics" *Journal of Organizational Behavior* 24: 733-751.

Carrol, A.B. (1999). "Corporate Social Responsibility, Evolution of a Definitional construct" *Business and Society* 38: 268-295.

Carrol, A.B., Shabana, K.M. (2010). "The business case for corporate social responsibility: A review of concepts, research and practice" *Internatinal journal of management reviews 12*: 85-105.

Chatman, J. A. (1989). "Improving interactional organizational research: A model of person-organization fit" *Academy of Management Review* 14: 333-349.

Cochran, P.L., Wood, R.A. (1984). "Corporate Social Responsibility and Financial Performance" *The Academy of Management Journal 27:* 42-56

Colbert, B., Kurucz, E., Wheeler, D. (2008). "The business case for corporate social responsibility" In Crane, A., McWilliams, A., Matten, D., Moon, J. and Siegel, D. (eds), The Oxford Handbook of Corporate Social Responsibility. Oxford: *Oxford University Press*: 83–112.

Dahlsrud, A. (2008). "How Corporate Social Responsibility is Defined: an Analysis of 37 Definitions" *Corporate Social Responsibility and Environmental Management* 15: 1-13.

Dolan, K. A. (1997). "Kinder, Gentler M.B.A.s", Forbes (June 2): 39–40.

Dubé, R., Herren, N., Major, F., Milot, A., Provost, M. (1998). "IBM Bromont Les exigencies d'un donneur d'ordres en matière environnementale" *Case Study, HEC Montreal*.

Fombrun, C., Shanley, M. (1990). "What's in a name? Reputation building and corporate strategy" *Academy of Management Journal* 33: 233-258.

Forbes, retrieved from http://www.forbes.com/sites/susanadams/2011/09/16/the-most-responsible-companies-another-ranking/

Forret, M.L., Hendrickson, C., Turban, D.B. (1998). "Applicant attraction to firms: Influences of organization reputation, job attributes, and recruiter behaviors" *Journal of Vocational Behavior* 52: 24-44.

Gatewood, R. D., Gowan, M.A., Lautenschlager, G.J. (1993). "Corporate image, recruitment image, and initial job choice decisions" *Academy of Management Journal* 36: 414-427.

Greening, D.W., Turban, D. B. (1997). "Corporate social performance and organizational attractiveness to prospective employees" *Academy of Management Journal* 40: 658-672.

Greening, D.W., Turban, D. B. (2000). "Corporate Social performance as a competitive advantage in attracting a quality workforce" *Business and Society* 39: 254-280.

Gutfield, R. (1991). "Shades of green: Eight of 10 Americans are environmentalists, at least so they say" *The Wall Street Journal* p. 1.

Hardy, E. (1990). "Northeast eco-entrepreneurs" American Demographics 49-50.

Hawker, B., Jackson, P. (2001). "Is Corporate Social Responsibility Here to Stay?" Retrieved from http://www.cdforum.com/research/icsrhts.doc.

Keon, T.L., Turban, D. B. (1993). "Organizational attractiveness: An interactionist perspective" *Journal of Applied Psychology* 78: 184-193.

Kramer, M.R., Porter, M.E. (2006). "The link between competitive advantage and Corporate Social Responsibility" *Harvard Business Review 84*: 1-16.

Leblanc, G., Nguyen, N. (2001). "Corpoprate image and corporate reputation in customers' retention decisions in services" *Journal of retailing and consumer services* 8: 227-236.

McGuire, J.W. (1963). "Business and Society" New York. McGraw-Hill Book Company, Inc.

McWilliams, A., Siegel D., Wright, P.M. (2006). "Guest Editors' Introduction Corporate Social Responsibility: Strategic Implications" *Journal of Management Studies* 43: 1-18

Montgomery, D.B., Ramus, C.A. (2003). "Corporate Social Responsibility reputation effects on MBA job choice" *Stanford Graduate School of business research paper series* 1-15

Moskowitz, M. (1972). "Choosing socially responsible stocks" *Business and Society Review 1:* 71-75

Moskowitz, M. (1975). "Profiles in corporate responsibility" *Business and Society Review 13*: 29-42

Newsweek 2011. Retrieved from http://www.sustainalytics.com/green-rankings-2011.

Porter, M. E., Van der Linde, C. (1995). "Green and competitive" *Harvard Business Review*, 73: 120-134.

Reputation Institute (2012). Retrieved from http://www.reputationinstitute.com/

Rynes, S. L. (1991). "Recruitment, job choice, and post-hire consequences: A call for new research directions" In M. D. Dunnette & L. M. Hough (Eds.), Handbook of industrial and organizational psychology (2nd ed.,Vol. 2, pp. 399-444). Palo Alto, CA: *Consulting Psychologists Press*.

Smith, N.C. (2003). "Corporate social responsibility: whether or how?" *California Management Review* 45: 52–76.

Turban, D.B. (2001). "Organizational attractiveness as an employer on college campuses: An examination of the applicant population" *Journal of Vocational Behavior* 58: 293-312.

Votaw, D. (1973). "Genius becomes rare" In D. Votaw & S. P. Sethi (Eds.) The corporate dilemma. *Englewood Cliffs, NJ: Prentice Hall*.

Wood, D. J. (1991). "Corporate Social Performance Revisited" *Academy of Management Review 16*: 691-718.

World Business Council for Sustainable Development (2000). "Corporate Social Responsibility: Making Good Business Sense" World Business Council for Sustainable Development: Geneva.

# Appendix

Table 17: Anova test Q4 & Age

		df	F	Sig.
	Between Groups	3	1.497	.221
Adidas	Within Groups	91		
	Total	94		
	Between Groups	3	.072	.975
Apple	Within Groups	94		
	Total	97		
	Between Groups	3	1.397	.248
BMW	Within Groups	95		
	Total	98		
	Between Groups	3	3.861	.012
British Petrol (BP)	Within Groups	89		
	Total	92		
	Between Groups	3	1.873	.140
Christian Dior	Within Groups	87		
	Total	90		
	Between Groups	3	1.624	.189
Coca-Cola	Within Groups	94		
	Total	97		
	Between Groups	3	2.021	.117
General Motors (GM)	Within Groups	89		
	Total	92		
	Between Groups	3	.177	.912
Google	Within Groups	94		
	Total	97		
	Between Groups	3	1.023	.386
Heineken	Within Groups	91		
	Total	94		
	Between Groups	3	.139	.936
IBM	Within Groups	76		
	Total	79		
	Between Groups	3	.176	.912
Microsoft	Within Groups	93		
	Total	96		
	Between Groups	3	1.006	.394
Nestle	Within Groups	94		
		07		
	Total	97	l	
	Total Between Groups	3	.957	.416
Nike			.957	.416

	Between Groups	3	.839	.476
PepsiCola	Within Groups	92		
	Total	95		
	Between Groups	3	.681	.566
Philips	Within Groups	93		
	Total	96		
	Between Groups	3	2.843	.042
Shell	Within Groups	95		
	Total	98		
	Between Groups	3	.765	.517
Sony	Within Groups	92		
	Total	95		
	Between Groups	3	1.063	.369
Total	Within Groups	90		
	Total	93		
	Between Groups	3	.099	.961
Volkswagen (VW)	Within Groups	93		
	Total	96		
	Between Groups	3	.300	.825
Volvo	Within Groups	90		
	Total	93		

Table 18: Multiple comparisons (AGE)

	Dependent Variable			Mean Difference (I-J)	Sig.
			25 to 29	517	.447
		15 to 24	30 to 34	188	1.000
			35 and older	.027	1.000
			15 to 24	.517	.447
		25 to 29	30 to 34	.329	1.000
Adidas	Bonferroni		35 and older	.544	.492
Adidas	Bonnerronn		15 to 24	.188	1.000
		30 to 34	25 to 29	329	1.000
			35 and older	.215	1.000
		35 and older	15 to 24	027	1.000
			25 to 29	544	.492
			30 to 34	215	1.000
		15 to 24	25 to 29	.080	1.000
			30 to 34	.123	1.000
			35 and older	.008	1.000
			15 to 24	080	1.000
Apple	Bonferroni	25 to 29	30 to 34	.043	1.000
			35 and older	073	1.000
			15 to 24	123	1.000
		30 to 34	25 to 29	043	1.000
			35 and older	116	1.000

			15 to 24	008	1.000
		35 and older	25 to 29	.073	1.000
			30 to 34	.116	1.000
			25 to 29	579	.273
		15 to 24	30 to 34	281	1.000
			35 and older	381	1.000
			15 to 24	.579	.273
		25 to 29	30 to 34	.298	1.000
			35 and older	.198	1.000
BMW	Bonferroni		15 to 24	.281	1.000
		30 to 34	25 to 29	298	1.000
			35 and older	100	1.000
			15 to 24	.381	1.000
		35 and older	25 to 29	198	1.000
			30 to 34	.100	1.000
			25 to 29	349	.657
		15 to 24	30 to 34	783 <sup>*</sup>	.009
			35 and older	183	1.000
			15 to 24	.349	.657
		25 to 29	30 to 34	433	.344
	- a .		35 and older	.167	1.000
	Bonferroni		15 to 24	.783*	.009
		30 to 34	25 to 29	.433	.344
	Games-Howell		35 and older	.600	.102
		35 and older 15 to 24	15 to 24	.183	1.000
			25 to 29	167	1.000
British Petrol			30 to 34	600	.102
(BP)			25 to 29	349	.188
( )			30 to 34	783*	.048
			35 and older	183	.714
		25 to 29	15 to 24	.349	.188
			30 to 34	433	.464
			35 and older	.167	.813
			15 to 24	.783*	.048
		30 to 34	25 to 29	.433	.464
			35 and older	.600	.197
			15 to 24	.183	.714
		35 and older	25 to 29	167	.813
			30 to 34	600	.197
			25 to 29	.330	1.000
		15 to 24	30 to 34	.123	1.000
			35 and older	.752	.162
			15 to 24	330	1.000
		25 to 29	30 to 34	207	1.000
		25 to 25	35 and older	.423	1.000
Christian Dior	Bonferroni		15 to 24	123	1.000
		30 to 34	25 to 29	.207	1.000
		201021	35 and older	.629	.507
			15 to 24	752	.162
		35 and older	25 to 29	423	1.000
		33 and older	30 to 34	629	.507
			25 to 29	405	.941
		15 to 24	30 to 34	272	1.000
Coca-Cola	Bonferroni	13 to 24	35 and older	.210	1.000
		25 to 29	15 to 24	.405	.941

			30 to 34	.133	1.000
			35 and older	.615	.273
			15 to 24	.272	1.000
		30 to 34	25 to 29	133	1.000
			35 and older	.482	.994
			15 to 24	210	1.000
		35 and older	25 to 29	615	.273
			30 to 34	482	.994
			25 to 29	319	1.000
		15 to 24	30 to 34	625	.195
			35 and older	025	1.000
			15 to 24	.319	1.000
		25 to 29	30 to 34	306	1.000
General Motors			35 and older	.294	1.000
(GM)	Bonferroni		15 to 24	.625	.195
(- )		30 to 34	25 to 29	.306	1.000
		30 60 3 1	35 and older	.600	.290
			15 to 24	.025	1.000
		35 and older	25 to 29	294	1.000
		35 una oraci	30 to 34	600	.290
			25 to 29	.087	1.000
		15 to 24	30 to 34	.006	1.000
	Bonferroni	13 to 24	35 and older	.219	1.000
		25 to 29	15 to 24	087	1.000
			30 to 34	081	1.000
			35 and older	.132	1.000
Google		30 to 34 35 and older	15 to 24	006	1.000
			25 to 29	.081	1.000
			35 and older	.213	1.000
			15 to 24	219	1.000
			25 to 29	132	1.000
			30 to 34	213	1.000
			25 to 29	248	1.000
		15 to 24	30 to 34	438	.891
			35 and older	.020	1.000
		25 to 29	15 to 24	.020	1.000
			30 to 34	190	1.000
		23 10 29	35 and older	.268	1.000
Heineken	Bonferroni		15 to 24	.438	.891
		30 to 34	25 to 29	.190	1.000
		30 10 34	35 and older	.458	.907
			15 to 24	020	1.000
		35 and older	25 to 29	020	1.000
		33 and older	30 to 34	268 458	.907
		15 to 24	25 to 29	194	1.000
		13 10 24	30 to 34	036	
			35 and older	124	1.000
		25 to 20	15 to 24	.194	1.000
IDM	Darf	25 to 29	30 to 34	.158	1.000
IBM	Bonferroni		35 and older	.070	1.000
		20 4= 24	15 to 24	.036	1.000
		30 to 34	25 to 29	158	1.000
			35 and older	087	1.000
		35 and older	15 to 24	.124	1.000
			25 to 29	070	1.000

			30 to 34	.087	1.000
			25 to 29	.149	1.000
		15 to 24	30 to 34	.235	1.000
			35 and older	.146	1.000
			15 to 24	149	1.000
		25 to 29	30 to 34	.086	1.000
			35 and older	003	1.000
Microsoft	Bonferroni		15 to 24	235	1.000
		30 to 34	25 to 29	086	1.000
			35 and older	089	1.000
			15 to 24	146	1.000
		35 and older	25 to 29	.003	1.000
			30 to 34	.089	1.000
			25 to 29	209	1.000
		15 to 24	30 to 34	537	.559
			35 and older	115	1.000
			15 to 24	.209	1.000
		25 to 29	30 to 34	328	1.000
NT 41	D C :		35 and older	.094	1.000
Nestle	Bonferroni		15 to 24	.537	.559
		30 to 34	25 to 29	.328	1.000
			35 and older	.422	1.000
		35 and older	15 to 24	.115	1.000
			25 to 29	094	1.000
			30 to 34	422	1.000
	Bonferroni	15 to 24	25 to 29	326	1.000
			30 to 34	372	1.000
			35 and older	.112	1.000
		25 to 29	15 to 24	.326	1.000
			30 to 34	045	1.000
			35 and older	.438	1.000
Nike		30 to 34	15 to 24	.372	1.000
			25 to 29	.045	1.000
			35 and older	.483	1.000
		_	15 to 24	112	1.000
		35 and older	25 to 29	438	1.000
			30 to 34	483	1.000
			25 to 29	255	1.000
		15 to 24	30 to 34	248	1.000
			35 and older	.158	1.000
			15 to 24	.255	1.000
		25 to 29	30 to 34	.007	1.000
D 'C 1	D 6 :		35 and older	.413	1.000
PepsiCola	Bonferroni		15 to 24	.248	1.000
		30 to 34	25 to 29	007	1.000
			35 and older	.406	1.000
			15 to 24	158	1.000
		35 and older	25 to 29	413	1.000
			30 to 34	406	1.000
			25 to 29	.014	1.000
		15 to 24	30 to 34	160	1.000
D1 ***			35 and older	.277	1.000
Philips	Bonferroni		15 to 24	014	1.000
		25 to 29	30 to 34	174	1.000
			35 and older	.263	1.000

			15 to 24	.160	1.000
		30 to 34	25 to 29	.174	1.000
		2000.	35 and older	.437	.987
			15 to 24	277	1.000
		35 and older	25 to 29	263	1.000
			30 to 34	437	.987
			25 to 29	128	1.000
		15 to 24	30 to 34	567	.113
			35 and older	.110	1.000
			15 to 24	.128	1.000
		25 to 29	30 to 34	439	.334
	D ( .		35 and older	.238	1.000
	Bonferroni		15 to 24	.567	.113
		30 to 34	25 to 29	.439	.334
			35 and older	.677*	.047
			15 to 24	110	1.000
		35 and older	25 to 29	238	1.000
C1. 11			30 to 34	677*	.047
Shell			25 to 29	128	.897
		15 to 24	30 to 34	567	.250
			35 and older	.110	.938
			15 to 24	.128	.897
		25 to 29	30 to 34	439	.445
	C II II		35 and older	.238	.542
	Games-Howell	30 to 34	15 to 24	.567	.250
			25 to 29	.439	.445
			35 and older	.677	.124
		35 and older	15 to 24	110	.938
			25 to 29	238	.542
			30 to 34	677	.124
			25 to 29	310	1.000
		15 to 24	30 to 34	321	1.000
			35 and older	004	1.000
			15 to 24	.310	1.000
	D C	25 to 29	30 to 34	010	1.000
Sony			35 and older	.306	1.000
Sony	Bonferroni		15 to 24	.321	1.000
		30 to 34	25 to 29	.010	1.000
			35 and older	.317	1.000
			15 to 24	.004	1.000
		35 and older	25 to 29	306	1.000
			30 to 34	317	1.000
			25 to 29	121	1.000
		15 to 24	30 to 34	399	.930
			35 and older	.069	1.000
			15 to 24	.121	1.000
		25 to 29	30 to 34	278	1.000
Total	Bonferroni		35 and older	.190	1.000
rotar	Domenom		15 to 24	.399	.930
		30 to 34	25 to 29	.278	1.000
			35 and older	.468	.596
			15 to 24	069	1.000
		35 and older	25 to 29	190	1.000
			30 to 34	468	.596
Volkswagen	Bonferroni	15 to 24	25 to 29	015	1.000

(VW)			30 to 34	145	1.000
			35 and older	100	1.000
			15 to 24	.015	1.000
		25 to 29	30 to 34	130	1.000
			35 and older	085	1.000
			15 to 24	.145	1.000
		30 to 34	25 to 29	.130	1.000
			35 and older	.045	1.000
			15 to 24	.100	1.000
		35 and older	25 to 29	.085	1.000
			30 to 34	045	1.000
		15 to 24	25 to 29	.073	1.000
			30 to 34	111	1.000
			35 and older	183	1.000
		25 to 29	15 to 24	073	1.000
			30 to 34	184	1.000
Volvo	Bonferroni		35 and older	256	1.000
VOIVO	Bonterrom		15 to 24	.111	1.000
		30 to 34	25 to 29	.184	1.000
			35 and older	072	1.000
			15 to 24	.183	1.000
		35 and older	25 to 29	.256	1.000
			30 to 34	.072	1.000

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

**Table 19: Anova test (education)** 

		df	F	Sig.
Adidas	Between Groups	2	1.470	.235
	Within Groups	92		
	Total	94		
Apple	Between Groups	2	.585	.559
	Within Groups	95		
	Total	97		
BMW	Between Groups	2	4.357	.015
	Within Groups	96		
	Total	98		
British Petrol (BP)	Between Groups	2	.117	.890
	Within Groups	90		
	Total	92		
Christian Dior	Between Groups	2	.395	.675
	Within Groups	88		
	Total	90		
Coca-Cola	Between Groups	2	1.420	.247
	Within Groups	95		
	Total	97		
General Motors	Between Groups	2	1.236	.295
(GM)	Within Groups	90		
	Total	92		
Google	Between Groups	2	.281	.756
	Within Groups	95		
	Total	97		
Heineken	Between Groups	2	.269	.765
	Within Groups	92		
	Total	94		

IBM	Between Groups	2	1.795	.173
	Within Groups	77		
	Total	79		
Microsoft	Between Groups	2	2.290	.107
	Within Groups	94		
	Total	96		
Nestle	Between Groups	2	.287	.751
	Within Groups	95		
	Total	97		
Nike	Between Groups	2	2.244	.112
	Within Groups	94		
	Total	96		
PepsiCola	Between Groups	2	.470	.627
_	Within Groups	93		
	Total	95		
Philips	Between Groups	2	.636	.531
	Within Groups	94		
	Total	96		
Shell	Between Groups	2	1.185	.310
	Within Groups	96		
	Total	98		
Sony	Between Groups	2	.137	.872
	Within Groups	93		
	Total	95		
Total	Between Groups	2	.273	.762
	Within Groups	91		
	Total	93		
Volkswagen	Between Groups	2	.173	.841
(VW)	Within Groups	94		
	Total	96		
Volvo	Between Groups	2	3.060	.052
	Within Groups	91		
	Total	93		

Table 20: Multiple comparisons (education)

		Dependent Variable		Mean Difference (I-J)	Sig.
		studies in economics	other kind of university studies	.467	.275
			no university studies	.269	1.000
Adidas	Bonferroni	other kind of university	studies in economics	467	.275
Auluas	Boillelloili	studies	no university studies	198	1.000
		no university studies	studies in economics	269	1.000
			other kind of university studies	.198	1.000
		studies in economics	other kind of university studies	.228	1.000
			no university studies	.005	1.000
Annla	Bonferroni	other kind of university	studies in economics	228	1.000
Apple	Boillelloili	studies	no university studies	223	1.000
			studies in economics	005	1.000
		no university studies	other kind of university studies	.223	1.000

		studies in economics	other kind of university studies	.492	.179		
			no university studies	245	1.000		
BMW	Bonferroni	other kind of university	studies in economics	492	.179		
DIVI VV	Bonnerronn	studies	no university studies	738*	.022		
			studies in economics	.245	1.000		
		no university studies	other kind of university studies	.738*	.022		
		studies in economics	other kind of university studies	.060	1.000		
			no university studies	040	1.000		
British Petrol	Bonferroni	other kind of university	studies in economics	060	1.000		
(BP)	Bonnerronn	studies	no university studies	100	1.000		
			studies in economics	.040	1.000		
		no university studies	other kind of university studies	.100	1.000		
		studies in economics	other kind of university studies	.203	1.000		
			no university studies	.284	1.000		
Christian	Bonferroni	other kind of university	studies in economics	203	1.000		
Dior	Bonlettoni	studies	no university studies	.081	1.000		
			studies in economics	284	1.000		
				no university studies	other kind of university studies	081	1.000
		studies in economics	other kind of university studies	.433	.330		
			no university studies	.417	.556		
		other kind of university	studies in economics	433	.330		
Coca-Cola	Bonferroni	studies	no university studies	017	1.000		
			studies in economics	417	.556		
		no university studies	other kind of university studies	.017	1.000		
		studies in economics	other kind of university studies	.283	.677		
General			no university studies	046	1.000		
Motors	Bonferroni	other kind of university	studies in economics	283	.677		
(GM)	סווובווחווו	studies	no university studies	328	.554		
		no university studies	studies in economics other kind of university	.046	1.000		
			studies other kind of university				
		studies in economics	studies no university studies	.122 078	1.000		
		other kind of university	studies in economics	122	1.000		
Google	Bonferroni	studies	no university studies	122	1.000		
		Studies	studies in economics	.078	1.000		
		no university studies	other kind of university studies	.201	1.000		
		studies in economics	other kind of university studies	.120	1.000		
			no university studies	.217	1.000		
II air al arr	Damfa	other kind of university	studies in economics	120	1.000		
Heineken	Bonferroni	studies	no university studies	.097	1.000		
			studies in economics	217	1.000		
		no university studies	other kind of university studies	097	1.000		

IDM		studies in economics	other kind of university studies	.508	.193
			no university studies	.396	.738
	D C :	other kind of university	studies in economics	508	.193
IBM	Bonferroni	studies	no university studies	113	1.000
			studies in economics	396	.738
		no university studies	other kind of university studies	.113	1.000
		studies in economics	other kind of university studies	.549	.126
			no university studies	.511	.316
Microsoft	Bonferroni	other kind of university	studies in economics	549	.126
Wherosoft	Bomenom	studies	no university studies	037	1.000
			studies in economics	511	.316
		no university studies	other kind of university studies	.037	1.000
		studies in economics	other kind of university studies	020	1.000 .738 1.000 .126 .316 .126 1.000 .316
			no university studies	202	1.000
NI	D C :	other kind of university	studies in economics	.020	1.000
Nestle	Bonferroni	studies	no university studies	182	1.000
			studies in economics	.202	1.000
		no university studies	other kind of university studies	.182	1.000
		studies in economics  other kind of university studies	other kind of university studies	.495	.254
			no university studies	.005	1.000
277	Bonferroni		studies in economics	495	.254
Nike			no university studies	490	
		no university studies	studies in economics	005	
			other kind of university studies	.490	.278
		studies in economics	other kind of university studies	.248	1.000
			no university studies	.125	1.000
D :C 1	Bonferroni	other kind of university	studies in economics	248	1.000
PepsiCola		studies	no university studies	122	
			studies in economics	125	1.000
		no university studies	other kind of university studies	.122	1.000
		studies in economics	other kind of university studies	.200	1.000
			no university studies	.311	.830
D1 '''	D 6 .	other kind of university	studies in economics	200	
Philips	Bonferroni	studies	no university studies	.111	
			studies in economics	311	+
		no university studies	other kind of university studies	111	1.000
		studies in economics	other kind of university studies	.162	1.000
			no university studies	144	1.000
G1 11	D. C	other kind of university	studies in economics	162	1.000
Shell	Bonferroni	studies	no university studies	306	.417
			studies in economics	.144	1.000
		no university studies	other kind of university studies	.306	.417

		studies in economics	other kind of university studies	.123	1.000
			no university studies	.038	1.000
Sony	Bonferroni	other kind of university	studies in economics	123	1.000
Solly	Bonnentoni	studies	no university studies	085	1.000
			studies in economics	038	1.000
		no university studies	other kind of university studies	.085	1.000
		studies in economics	other kind of university studies	.125	1.000 1.000
			no university studies	019	
Total	Bonferroni	other kind of university	studies in economics	125	1.000
Total	Bontenoni	studies	no university studies	144	1.000
			studies in economics	.019	1.000
		no university studies	other kind of university studies	.144	1.000
		studies in economics	other kind of university studies	030	1.000
			no university studies	163	1.000
Volkswagen	Bonferroni	other kind of university	studies in economics	.030	1.000
(VW)	Bontenoni	studies	no university studies	133	1.000
			studies in economics	.163	1.000
		no university studies	other kind of university studies	.133	1.000
		studies in economics	other kind of university studies	198	1.000
Volvo			no university studies	702	.060
	Bonferroni	other kind of university	studies in economics	.198	1.000
VOIVO	Bonnenoni	studies	no university studies	504	.153
			studies in economics	.702	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000
		no university studies	other kind of university studies	.504	.153

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

Table 21: Newsweek ranking

Rank	Company	Country	Industry Sector	Green score
1	Munich Re	Germany	Financials	83.6
2	IBM	United States	Information Technology & Services	82.5
3	National Australia Bank	Australia	Financials	82.2
4	Bradesco	Brazil	Financials	82.2
5	ANZ Banking Group	Australia	Financials	80.9
6	BT Group	United Kingdom	Telecommunications	80.4
7	Tata Consultancy Services	India	Information Technology & Services	79.1
8	Infosys	India	Information Technology & Services	77.3

9	Philips	Netherlands	Capital Goods	77.2
10	Swisscom	Switzerland	Telecommunications	77
11	Societe Generale	France	Financials	76.6
12	Bell Canada Enterprises	Canada	Telecommunications	76.5
13	Fujitsu	Japan	Technology Equipment	76.1
14	Wal-Mart de Mexico	Mexico	Retailers	75.9
15	Hewlett-Packard	United States	Technology Equipment	75.8
16	Sprint Nextel	United States	Telecommunications	75.6
17	Santander	Brazil	Financials	75.3
18	Westpac Banking	Australia	Financials	75.2
19	RBS	United Kingdom	Financials	75.2
20	SAP	Germany	Information Technology & Services	75.2
21	Nokia	Finland	Technology Equipment	75.1
22	Samsung	Korea, Republic Of	Technology Equipment	75.1
23	Telecom Italia	Italy	Telecommunications	74.9
24	Baxter	United States	Healthcare	74.9
25	Dell	United States	Technology Equipment	74.7
26	Johnson & Johnson	United States	Healthcare	74.6
27	Toshiba	Japan	Technology Equipment	74.2
28	Aviva	United Kingdom	Financials	74.2
29	Fiat	Italy	Vehicles & Components	74.1
30	Generali Group	Italy	Financials	74.1
31	Accenture	United States	Information Technology & Services	74
32	Standard Chartered	United Kingdom	Financials	74
33	Marks & Spencer Group	United Kingdom	Retailers	73.9
34	Novartis	Switzerland	Healthcare	73.9
35	Wipro	India	Information Technology & Services	73.4
36	KPN	Netherlands	Telecommunications	72.9
37	BMW	Germany	Vehicles & Components	72.7
38	Peugeot	France	Vehicles & Components	72.5
39	Telefonica	Spain	Telecommunications	72.4
40	Alcatel-Lucent	France	Technology Equipment	72.4

41	WPP	United Kingdom	Media & Publishing	72.2
42	France Telecom	France	Telecommunications	72.1
43	BBVA	Spain	Financials	71.7
44	EMC	United States	Technology Equipment	71.6
45	Standard Bank	South Africa	Financials	71.6
46	Volkswagen	Germany	Vehicles & Components	71.6
47	Intel	United States	Technology Equipment	71.4
48	NEC	Japan	Technology Equipment	71.3
49	Ericsson	Sweden	Technology Equipment	71.1
50	Banco do Brasil	Brazil	Financials	71
51	Cognizant Technology	United States	Information Technology & Services	70.9
52	Staples	United States	Retailers	70.7
53	Motorola Solutions	United States	Technology Equipment	70.7
54	Itau	Brazil	Financials	70.6
55	EADS	Netherlands	Capital Goods	70.5
56	Hitachi	Japan	Technology Equipment	70.3
57	Intesa Sanpaolo	Italy	Financials	70.2
58	Vodafone	United Kingdom	Telecommunications	70.2
59	NTT DoCoMo	Japan	Telecommunications	70.2
60	Best Buy	United States	Retailers	70.2
61	Allianz	Germany	Financials	70.2
62	AstraZeneca	United Kingdom	Healthcare	70.1
63	Inditex	Spain	Textiles, Apparel & Luxury Goods	70
64	ING	Netherlands	Financials	69.9
65	LG	Korea, Republic Of	Consumer Goods	69.9
66	Ford Motor	United States	Vehicles & Components	69.8
67	PPR	France	Retailers	69.7
68	Walt Disney	United States	Media & Publishing	69.6
69	UniCredit	Italy	Financials	69.5
70	Citigroup	United States	Financials	69.5
71	American Express	United States	Financials	69.4
72	Novo Nordisk	Denmark	Healthcare	69.4

73	Adecco	Switzerland	Professional Services	69.2
74	Hyundai	Korea, Republic Of	Vehicles & Components	69.1
75	Sony	Japan	Consumer Goods	69.1
76	Commonwealth Bank	Australia	Financials	68.9
77	NTT	Japan	Telecommunications	68.9
78	HSBC	United Kingdom	Financials	68.8
79	Thales	France	Capital Goods	68.6
80	Deutsche Telekom	Germany	Telecommunications	68.4
81	BNP Paribas	France	Financials	68.4
82	Cisco Systems	United States	Technology Equipment	68.4
83	Aegon	Netherlands	Financials	68.3
84	TELUS	Canada	Telecommunications	68.2
85	TSMC	Taiwan	Technology Equipment	68.1
86	Rolls-Royce Holdings	United Kingdom	Capital Goods	68
87	Renault	France	Vehicles & Components	67.9
88	Panasonic	Japan	Consumer Goods	67.8
89	Deutsche Post	Germany	Transportation & Logistics	67.7
90	Barclays	United Kingdom	Financials	67.6
91	Microsoft	United States	Information Technology & Services	67.6
92	Bank of China	China	Financials	67.4
93	Fujifilm	Japan	Technology Equipment	67.1
94	AT&T	United States	Telecommunications	67.1
95	Vivendi	France	Media & Publishing	67
96	Boeing	United States	Capital Goods	66.9
97	Siemens	Germany	Capital Goods	66.7
98	KBC	Belgium	Financials	66.6
99	Fiat Industrial	Italy	Capital Goods	66.5
100	L'Oreal	France	Consumer Goods	66.5
101	Mitsubishi Electric	Japan	Capital Goods	66.3
102	Deutsche Bank	Germany	Financials	66.3
103	Roche	Switzerland	Healthcare	66.3
104	Kia Motors	Korea, Republic	Vehicles & Components	66.3

		Of		
105	Industrial Bank	China	Financials	66.3
106	Pfizer	United States	Healthcare	66.2
107	Allstate	United States	Financials	66.1
108	Mapfre	Spain	Financials	66
109	TeliaSonera	Sweden	Telecommunications	65.8
110	Santander	Spain	Financials	65.7
111	Zurich Financial Services	Switzerland	Financials	65.7
112	Bank of America	United States	Financials	65.6
113	Xerox	United States	Technology Equipment	65.4
114	Oracle	United States	Information Technology & Services	65.2
115	Bayer	Germany	Healthcare	65
116	Kingfisher	United Kingdom	Retailers	64.8
117	Apple	United States	Technology Equipment	64.7
118	Toyota	Japan	Vehicles & Components	64.7
119	Northrop Grumman	United States	Capital Goods	64.7
120	Power Financial	Canada	Financials	64.6
121	Canon	Japan	Technology Equipment	64.5
122	KDDI	Japan	Telecommunications	64.5
123	MTN	South Africa	Telecommunications	64.5
124	Wal-Mart	United States	Retailers	64.4
125	Sanofi	France	Healthcare	64.3
126	Omnicom Group	United States	Media & Publishing	64.2
127	Medtronic	United States	Healthcare	64.2
128	Randstad	Netherlands	Professional Services	64.2
129	ACE	United States	Financials	64.1
130	U.S. Bancorp	United States	Financials	64
131	TD Bank	Canada	Financials	64
132	Kyocera	Japan	Technology Equipment	63.9
133	Tokio Marine	Japan	Financials	63.9
134	Google	United States	Information Technology & Services	63.8
135	Finmeccanica	Italy	Capital Goods	63.6

136	Metro	Germany	Retailers	63.5
137	Travelers	United States	Financials	63.5
138	Capgemini	France	Information Technology & Services	63.5
139	Bristol-Myers Squibb	United States	Healthcare	63.4
140	Carrefour	France	Retailers	63.4
141	General Electric	United States	Capital Goods	63.3
142	Ahold	Netherlands	Retailers	63.3
143	J. C. Penney	United States	Retailers	63.3
144	United Technologies	United States	Capital Goods	63.2
145	Eli Lilly	United States	Healthcare	63.1
146	Woolworths	Australia	Retailers	63.1
147	Medco Health Solutions	United States	Healthcare	63
148	TE Connectivity	United States	Technology Equipment	63
149	Humana	United States	Healthcare	62.9
150	Home Depot	United States	Retailers	62.9
151	Agricultural Bank of China	China	Financials	62.9
152	Merck	Germany	Healthcare	62.8
153	GlaxoSmithKline	United Kingdom	Healthcare	62.8
154	Qualcomm	United States	Technology Equipment	62.6
155	Raytheon	United States	Capital Goods	62.4
156	Dai-ichi Life Insurance	Japan	Financials	62.3
157	Rogers Communications	Canada	Telecommunications	62.3
158	Daimler	Germany	Vehicles & Components	62.2
159	Honda	Japan	Vehicles & Components	62.2
160	ABB	Switzerland	Capital Goods	62
161	Atlas Copco	Sweden	Capital Goods	61.8
162	Aeon	Japan	Retailers	61.8
163	Texas Instruments	United States	Technology Equipment	61.8
164	MAN	Germany	Capital Goods	61.8
165	Henkel	Germany	Consumer Goods	61.7
166	Scania	Sweden	Vehicles & Components	61.6
167	National Grid	United Kingdom	Utilities	61.6

168	Lloyds Banking Group	United Kingdom	Financials	61.5
169	Starbucks	United States	Hotels & Restaurants	61.5
170	H&M	Sweden	Textiles, Apparel & Luxury Goods	61.5
171	Amgen	United States	Healthcare	61.4
172	3M	United States	Capital Goods	61.3
173	Ferrovial	Spain	Capital Goods	61.2
174	J Sainsbury	United Kingdom	Retailers	61.1
175	MetLife	United States	Financials	61
176	VTB	Russian Federation	Financials	61
177	UBS	Switzerland	Financials	60.9
178	Nissan	Japan	Vehicles & Components	60.9
179	Lockheed Martin	United States	Capital Goods	60.8
180	Tesco	United Kingdom	Retailers	60.7
181	Gas Natural	Spain	Utilities	60.6
182	Komatsu	Japan	Capital Goods	60.6
183	ACS	Spain	Capital Goods	60.5
184	Sears Holdings	United States	Retailers	60.4
185	ICBC	China	Financials	60.3
186	WellPoint	United States	Healthcare	60.3
187	Repsol	Spain	Energy	60.1
188	Credit Agricole	France	Financials	60.1
189	Sberbank	Russian Federation	Financials	60.1
190	Volvo	Sweden	Vehicles & Components	60
191	Time Warner	United States	Media & Publishing	59.9
192	Morrisons	United Kingdom	Retailers	59.9
193	Verizon Communications	United States	Telecommunications	59.9
194	Thomson Reuters	Canada	Media & Publishing	59.9
195	Great-West Lifeco	Canada	Financials	59.8
196	Kohl's	United States	Retailers	59.8
197	Denso	Japan	Vehicles & Components	59.7
198	Li & Fung	Hong Kong	Retailers	59.7

199	Comcast	United States	Media & Publishing	59.7
200	United Parcel Service	United States	Transportation & Logistics	59.6
201	Kimberly-Clark	United States	Consumer Goods	59.6
202	China Mobile	China	Telecommunications	59.6
203	Canadian National Railway	Canada	Transportation & Logistics	59.5
204	Schneider Electric	France	Capital Goods	59.5
205	Credit Suisse	Switzerland	Financials	59.4
206	AXA	France	Financials	59.3
207	Telstra	Australia	Telecommunications	59.2
208	CIGNA	United States	Healthcare	59.2
209	RBC	Canada	Financials	59.2
210	Total	France	Energy	59.1
211	China Construction Bank	China	Financials	59.1
212	Sandvik	Sweden	Capital Goods	59.1
213	Procter & Gamble	United States	Consumer Goods	59
214	Eletrobras	Brazil	Utilities	59
215	Gap	United States	Textiles, Apparel & Luxury Goods	59
216	Anglo American Platinum	South Africa	Materials	59
217	Adidas	Germany	Textiles, Apparel & Luxury Goods	58.9
218	Ingersoll-Rand	United States	Capital Goods	58.8
219	Tyco International	United States	Capital Goods	58.8
220	Wolseley	United Kingdom	Capital Goods	58.7
221	JR-EAST	Japan	Transportation & Logistics	58.6
222	SAFRAN	France	Capital Goods	58.6
223	Covidien	United States	Healthcare	58.6
224	ВМО	Canada	Financials	58.5
225	CIBC	Canada	Financials	58.5
226	Ping An	China	Financials	58.5
227	Aetna	United States	Healthcare	58.5
228	Merck	United States	Healthcare	58.4
229	Sumitomo	Japan	Capital Goods	58.1
230	Avon Products	United States	Consumer Goods	58.1

231	Hon Hai Precision Industry	Taiwan	Technology Equipment	58
232	Johnson Controls	United States	Vehicles & Components	58
233	FedEx	United States	Transportation & Logistics	58
234	News Corp.	United States	Media & Publishing	57.9
235	LG Chem	Korea, Republic Of	Materials	57.9
236	Seven and I Holdings	Japan	Retailers	57.8
237	Vinci	France	Capital Goods	57.7
238	Marriott International	United States	Hotels & Restaurants	57.7
239	Wells Fargo	United States	Financials	57.7
240	Statoil	Norway	Energy	57.7
241	Quanta Computer	Taiwan	Technology Equipment	57.7
242	Telenor	Norway	Telecommunications	57.6
243	CMBC	China	Financials	57.5
244	Xstrata	United Kingdom	Materials	57.5
245	Veolia Environnement	France	Utilities	57.5
246	Hess	United States	Energy	57.4
247	Erste	Austria	Financials	57.3
248	Grupo Pao de Acucar	Brazil	Retailers	57.3
249	China CITIC Bank	China	Financials	57.2
250	BASF	Germany	Materials	57.2
251	Automatic Data Processing	United States	Information Technology & Services	57
252	Time Warner Cable	United States	Media & Publishing	57
253	Bouygues	France	Capital Goods	56.9
254	DIRECTV	United States	Media & Publishing	56.9
255	Mitsubishi UFJ Financial Group Inc.	Japan	Financials	56.8
256	Caterpillar	United States	Capital Goods	56.8
257	Michelin	France	Vehicles & Components	56.6
258	Groupe Casino	France	Retailers	56.6
259	Capital One Financial	United States	Financials	56.6
260	General Motors	United States	Vehicles & Components	56.5
261	Saipem	Italy	Energy	56.5

262	JR-CENTRAL	Japan	Transportation & Logistics	56.5
263	PICC	China	Financials	56.4
264	OMV	Austria	Energy	56.3
265	Lufthansa	Germany	Transportation & Logistics	56.3
266	CRH	Ireland	Materials	56.3
267	Fluor	United States	Capital Goods	56.3
268	Delhaize Group	Belgium	Retailers	56.3
269	Baker Hughes	United States	Energy	56.2
270	Mitsubishi Heavy Industries	Japan	Capital Goods	56.2
271	Toyota Industries	Japan	Vehicles & Components	56.2
272	Sysco	United States	Retailers	56.2
273	Macy's	United States	Retailers	56.1
274	POSCO	Korea, Republic Of	Materials	56
275	China Merchants Bank	China	Financials	56
276	Limited Brands	United States	Textiles, Apparel & Luxury Goods	56
277	ENI	Italy	Energy	55.9
278	State Bank of India	India	Financials	55.9
279	Takeda	Japan	Healthcare	55.9
280	Iberdrola	Spain	Utilities	55.9
281	Bank of Communications	China	Financials	55.8
282	Mizuho Financial Group	Japan	Financials	55.7
283	Marsh & McLennan	United States	Financials	55.7
284	SCA	Sweden	Materials	55.6
285	British American Tobacco	United Kingdom	Food, Beverage & Tobacco	55.5
286	Eaton	United States	Capital Goods	55.4
287	Suzuki	Japan	Vehicles & Components	55.4
288	CBS	United States	Media & Publishing	55.3
289	Cummins	United States	Capital Goods	55.3
290	Lowe's	United States	Retailers	55.2
291	Imperial Tobacco	United Kingdom	Food, Beverage & Tobacco	55.2
292	Unilever	Netherlands	Food, Beverage & Tobacco	55.2
293	China Telecom	China	Telecommunications	55.1

294	CPIC	China	Financials	55
295	Softbank	Japan	Telecommunications	54.9
296	PepsiCo	United States	Food, Beverage & Tobacco	54.8
297	Thermo Fisher Scientific	United States	Healthcare	54.8
298	China Life	China	Financials	54.8
299	American International Group	United States	Financials	54.7
300	Wesfarmers	Australia	Retailers	54.6
301	Fresenius Medical Care	Germany	Healthcare	54.6
302	JPMorgan Chase	United States	Financials	54.6
303	Kansai Electric Power	Japan	Utilities	54.5
304	UnitedHealth Group	United States	Healthcare	54.5
305	Barrick	Canada	Materials	54.5
306	Suncor	Canada	Energy	54.5
307	Goldman Sachs Group	United States	Financials	54.4
308	AIA Group	Hong Kong	Financials	54.3
309	Abbott Laboratories	United States	Healthcare	54.2
310	Mitsubishi	Japan	Capital Goods	54.2
311	Costco Wholesale	United States	Retailers	54.2
312	Vale	Brazil	Materials	54.1
313	Deere	United States	Capital Goods	54.1
314	Loblaw	Canada	Retailers	54
315	EDF	France	Utilities	54
316	McKesson	United States	Healthcare	53.9
317	Continental	Germany	Vehicles & Components	53.9
318	BHB Billiton	United Kingdom	Materials	53.8
319	Akzo Nobel	Netherlands	Materials	53.6
320	Shell	United Kingdom	Energy	53.4
321	BAE Systems	United Kingdom	Capital Goods	53.4
322	Rio Tinto	Australia	Materials	53.4
323	Teva	Israel	Healthcare	53.4
324	Prudential	United Kingdom	Financials	53.3
325	Kroger	United States	Retailers	53.3

326	Tata Motors	India	Vehicles & Components	53.3
327	Bridgestone	Japan	Vehicles & Components	53.1
328	Carlsberg	Denmark	Food, Beverage & Tobacco	53
329	China State Construction Engineering	Hong Kong	Capital Goods	53
330	LVMH	France	Textiles, Apparel & Luxury Goods	53
331	Tata Steel	India	Materials	53
332	Nordea Bank	Sweden	Financials	52.8
333	China Unicom	China	Telecommunications	52.7
334	SingTel	Singapore	Telecommunications	52.6
335	KOC Holding	Turkey	Capital Goods	52.5
336	ScotiaBank	Canada	Financials	52.5
337	Prudential Financial	United States	Financials	52.4
338	Diageo	United Kingdom	Food, Beverage & Tobacco	52.2
339	Reckitt Benckiser	United Kingdom	Consumer Goods	52.2
340	Maersk	Denmark	Transportation & Logistics	52.1
341	H. J. Heinz	United States	Food, Beverage & Tobacco	52.1
342	Altria Group	United States	Food, Beverage & Tobacco	52.1
343	Express Scripts	United States	Healthcare	52
344	Alstom	France	Capital Goods	52
345	Safeway	United States	Retailers	52
346	Target	United States	Retailers	52
347	Hyundai Heavy Industries	Korea, Republic Of	Capital Goods	51.9
348	Richemont	Switzerland	Textiles, Apparel & Luxury Goods	51.7
349	FEMSA	Mexico	Food, Beverage & Tobacco	51.7
350	Chubu Electric Power	Japan	Utilities	51.6
351	Nestle	Switzerland	Food, Beverage & Tobacco	51.6
352	Marubeni	Japan	Capital Goods	51.6
353	Centrica	United Kingdom	Utilities	51.6
354	Asahi Glass	Japan	Capital Goods	51.6
355	Nike	United States	Textiles, Apparel & Luxury Goods	51.5
356	E. ON	Germany	Utilities	51.5

357	Research in Motion	Canada	Technology Equipment	51.5
358	Illinois Tool Works	United States	Capital Goods	51.4
359	Baosteel	China	Materials	51.3
360	CVS Caremark	United States	Retailers	51.3
361	Marathon Oil	United States	Energy	51.2
362	Anglo American	United Kingdom	Materials	51.1
363	Praxair	United States	Materials	51.1
364	Petrobras	Brazil	Energy	51.1
365	Anheuser-Busch InBev	Belgium	Food, Beverage & Tobacco	51.1
366	Saint-Gobain	France	Capital Goods	51
367	China Unicom (Hong Kong)	China	Telecommunications	51
368	Kraft Foods	United States	Food, Beverage & Tobacco	50.9
369	SSE	United Kingdom	Utilities	50.8
370	ONGC	India	Energy	50.8
371	Magna	Canada	Vehicles & Components	50.8
372	Nomura	Japan	Financials	50.7
373	RWE	Germany	Utilities	50.7
374	Sodexo	France	Hotels & Restaurants	50.6
375	TJX	United States	Textiles, Apparel & Luxury Goods	50.5
376	BP	United Kingdom	Energy	50.5
377	Schindler	Switzerland	Capital Goods	50.4
378	Fresenius	Germany	Healthcare	50.3
379	CSX	United States	Transportation & Logistics	50.2
380	General Dynamics	United States	Capital Goods	50.1
381	Heineken	Netherlands	Food, Beverage & Tobacco	50.1
382	Luxottica	Italy	Textiles, Apparel & Luxury Goods	50.1
383	JX Holdings	Japan	Energy	49.8
384	PTT	Thailand	Energy	49.8
385	Danone	France	Food, Beverage & Tobacco	49.8
386	SMFG	Japan	Financials	49.8
387	Delta Air Lines	United States	Transportation & Logistics	49.7
388	PNC Financial Services Group	United States	Financials	49.7

389	Halliburton	United States	Energy	49.7
390	Manulife	Canada	Financials	49.6
391	Cardinal Health	United States	Healthcare	49.5
392	Carnival	United States	Transportation & Logistics	49.5
393	Linde	Germany	Materials	49.4
394	Weatherford International	United States	Energy	49.4
395	Chevron	United States	Energy	49.4
396	Christian Dior	France	Textiles, Apparel & Luxury Goods	49.4
397	Freeport-McMoRan	United States	Materials	49.4
398	Enel	Italy	Utilities	49.3
399	Coca-Cola	United States	Food, Beverage & Tobacco	49.2
400	Rosneft	Russian Federation	Energy	49.1
401	McDonald's	United States	Hotels & Restaurants	49
402	DuPont	United States	Materials	48.7
403	State Street	United States	Financials	48.5
404	HeidelbergCement	Germany	Materials	48.5
405	Syngenta	Switzerland	Materials	48.4
406	Bidvest	South Africa	Capital Goods	48.4
407	GDF Suez	France	Utilities	48.4
408	SABMiller	United Kingdom	Food, Beverage & Tobacco	48.2
409	Parker-Hannifin	United States	Capital Goods	48.1
410	Union Pacific	United States	Transportation & Logistics	48.1
411	Exxon Mobil	United States	Energy	48
412	Reliance Industries	India	Energy	47.9
413	Exelon	United States	Utilities	47.9
414	Yum Brands	United States	Hotels & Restaurants	47.8
415	Sinopec	China	Energy	47.8
416	Amazon.com	United States	Retailers	47.8
417	Ambev	Brazil	Food, Beverage & Tobacco	47.8
418	L-3 Communications	United States	Capital Goods	47.6
419	General Mills	United States	Food, Beverage & Tobacco	47.6
420	Sasol	South Africa	Energy	47.6

421	China Resources Enterprise	China	Retailers	47.6
422	America Movil	Mexico	Telecommunications	47.5
423	ConocoPhillips	United States	Energy	47.5
424	Honeywell International	United States	Capital Goods	47.3
425	International Paper	United States	Materials	47.2
426	Dominion Resources	United States	Utilities	47.1
427	Lukoil	Russian Federation	Energy	47
428	Schlumberger	United States	Energy	46.9
429	China Railway Construction	China	Capital Goods	46.7
430	Mitsubishi Chemical Holdings	Japan	Materials	46.7
431	Emerson Electric	United States	Capital Goods	46.6
432	Compass Group	United Kingdom	Hotels & Restaurants	46.5
433	Walgreen	United States	Retailers	46.4
434	Morgan Stanley	United States	Financials	46.3
435	Surgutneftegas	Russian Federation	Energy	46
436	Gazprom	Russian Federation	Energy	45.9
437	Jeronimo Martins	Portugal	Retailers	45.9
438	Dow Chemical	United States	Materials	45.8
439	Kellogg	United States	Food, Beverage & Tobacco	45.7
440	ArcelorMittal	Luxembourg	Materials	45.7
441	Alcoa	United States	Materials	45.7
442	Las Vegas Sands	United States	Hotels & Restaurants	45.7
443	Astra	Indonesia	Vehicles & Components	45.7
444	Dongfeng Motor Group	China	Vehicles & Components	45.6
445	BB&T	United States	Financials	45.5
446	Dollar General	United States	Retailers	45.3
447	Japan Tobacco	Japan	Food, Beverage & Tobacco	45.2
448	PPG Industries	United States	Materials	45
449	United Continental Holdings	United States	Transportation & Logistics	45
450	Duke Energy	United States	Utilities	45
451	Danaher	United States	Capital Goods	44.9

452	Occidental Petroleum	United States	Energy	44.7
453	Colgate-Palmolive	United States	Consumer Goods	44.7
454	Norfolk Southern	United States	Transportation & Logistics	44.5
455	CSR	China	Capital Goods	44.4
456	Air Liquide	France	Materials	44.3
457	Holcim	Switzerland	Materials	44.3
458	JFE Holdings	Japan	Materials	44.1
459	ThyssenKrupp	Germany	Materials	44.1
460	China Railway Engineering	China	Capital Goods	44.1
461	Nippon Steel	Japan	Materials	44.1
462	Associated British Foods	United Kingdom	Food, Beverage & Tobacco	44
463	Gerdau	Brazil	Materials	43.8
464	China Communications Construction	China	Capital Goods	43.7
465	Power Corp. of Canada	Canada	Financials	43.6
466	BNY Mellon	United States	Financials	43.5
467	National Oilwell Varco	United States	Energy	43.4
468	Philip Morris International	United States	Food, Beverage & Tobacco	43.3
469	Mitsui	Japan	Capital Goods	43.3
470	Lafarge	France	Materials	43.3
471	Norilsk Nickel	Russian Federation	Materials	43.1
472	Daqin Railway	China	Transportation & Logistics	42.9
473	Itochu	Japan	Capital Goods	42.8
474	Kirin Holdings	Japan	Food, Beverage & Tobacco	42.7
475	Hutchison Whampoa	Hong Kong	Capital Goods	42.4
476	Waste Management	United States	Professional Services	42.3
477	Valero Energy	United States	Energy	41.7
478	Midea	China	Consumer Goods	40.8
479	Kuehne & Nagel	Switzerland	Transportation & Logistics	40.6
480	Grupo Bimbo	Mexico	Food, Beverage & Tobacco	40.3
481	Transocean	United States	Energy	40
482	PetroChina	China	Energy	39.7

483	LyondellBasell	United States	Materials	39.2
484	Cez	Czech Republic	Utilities	38.4
485	Berkshire Hathaway	United States	Financials	38.1
486	Southern	United States	Utilities	37.8
487	CHALCO	China	Materials	36.2
488	China Coal Energy	China	Energy	35.9
489	Severstal	Russian Federation	Materials	34.3
490	Kepco	Korea, Republic Of	Utilities	33.7
491	Tingyi (Cayman Islands) Holding	China	Food, Beverage & Tobacco	31.4
492	China Shenhua Energy	China	Energy	30.7
493	Tyson Foods	United States	Food, Beverage & Tobacco	30.3
494	Bunge	United States	Food, Beverage & Tobacco	27
495	ENRC	United Kingdom	Materials	26.6
496	Archer-Daniels-Midland	United States	Food, Beverage & Tobacco	26
497	Monsanto	United States	Materials	22.8
498	NTPC	India	Utilities	22.1
499	Coal India	India	Energy	17.9
500	Wilmar	Singapore	Food, Beverage & Tobacco	17.5