

Consumer behavior research project

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Engaging in environmental responsibility increases the profitability of a company. | | | Consumer Behavior Research Project 2011 Engaging in environmental responsibility increases the profitability of a company.

INTRODUCTION More and more people are becoming aware of the importance of taking care of our environment. Almost everybody has heard about environmental problems (likely) caused by human consumption. In order to stop the constant decline in natural resources and the excessive demand of consumers, things need to change. Business has to change their philosophies into a focus on not harming human and ecosystems (Hofstra, 2011). But in our ‘ free market economy’ companies need to be able to make a profit or at least break-even from a change, before they will embrace it. That is why this research papers answers the question: Can a company increase their profitability by engaging in environmental responsibility? To answer this question, the following problem statement was formulated: Engaging in environmental responsibility increases the profitability of a company. Two sub questions need to be answered first: 1. Do consumers want eco-friendly products? 2. Do customers act upon their environmental believes? 3. Is there empirical evidence of increased profits by engaging in environmental responsibility? The first two sub questions are questions that must be answered positively for the hypothesis to hold. Without consumers willing to purchase products from environmentally responsible companies, there is no way that companies can make extra profit from engaging in environmental responsibility. Although a positive answer on the first two questions is a condition for the hypothesis to hold, it is still no conclusive evidence that engaging in environmental responsibility will increase profits.

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For conclusive evidence empirical proof is needed, which will be provided in the third sub question. The expectation is that engaging in environmental responsibility will increase the profitability of a company. Methodology of the research The first two sub-questions will be answered by examining the results of the provided questionnaire (among 24 respondents by e-mail). Several statistical tests will be used to determine the significance of outcomes and the relationship between several variables. In order to research the third sub-question of the research project, to test whether firms make more profits when they engage in an environmental responsibility, a literature study will be provided to review studies that look at the market value of firms. Due to the limited amount of time and resources for this research project, the use of existing science and literature is required to give a useful insight into the problem statement. These sources will provide an overview of the profitability of firms that are engaged in environmental responsibility. Theoretical background Our research considers 2 backgrounds. First, to research consumers, that is, the demand for environmentally responsible produced products, the assumption is made that consumers are aware of the impact consuming has on the environment. Recent years, media has reported frequently about environmental changes induced by mass consumptions and its corresponding mass production. Furthermore, more products use labels to signify they are produced in an eco-friendly manner. Also companies actively try to build their ‘ green’ image with marketing. Therefore this research assumes that people are aware of harming the environment by consuming. For the supply side of our research, the standard economic theory (SET) is used. One of the aspects of this theory states that firms are profit-maximizing. Firms will only involve in <https://assignbuster.com/consumer-behavior-research-project/>

certain activities such as environmentally responsible producing, when it pay-offs in terms of profits. When it does not improve a firm's profit, it will abandon it. According to SET, when this research shows that environmentally responsible producing results in larger profits, firms will adopt it. Research findings Do consumers prefer environmentally responsible produced products? Are consumers aware of environmental problems? The first four questions of the survey correspond with this question. But before the data from the survey can be used for analysis, an internal consistency reliability analysis is necessary. Such an analysis will tell us whether or not the data is useful and reliable. Reliability is important, because in the absence of reliability it is impossible to have any validity associated with the scores of a scale. Conducting and interpreting the internal consistency reliability analysis can be done through Cronbach's alpha. The following questions in the survey correspond with whether or not the respondent thinks the environment is important: - Q1: An increasing amount of consumers recognizes the relevance of taking care about "mother earth" considering the design, production and disposing of the purchased products. Do you agree or disagree? - Q2: What is your opinion about the statement? "Caring about the flora (vegetation) is important" - Q3: What is your opinion about the statement? "Caring about the fauna (animals) is important" - Q7A: Do you consider yourself as a person who is striving to be a more 'eco-friendly' consumer? Higher values of Cronbach's alpha are more desirable. As a rule of thumb a lot of professionals require a reliability of 0.70 or higher before using an instrument (See Appendix, Figure 1). Using SPSS an alpha value of 0.878 is obtained, which is considered very high (See Appendix, Figure 2). This means the test results are internally consistent and reliable. The data <https://assignbuster.com/consumer-behavior-research-project/>

needs to be normally distributed to use a parametric test; otherwise we will have to use the non-parametric test. Both the Kolmogorov-Smirnov as the Shapiro-Wilk test of normality, tells us the data (Q1, 2, 3, 7A) is not normally distributed (See Appendix, Figure 3). A good non-parametric test is the 'one sample chi square test'. To use this test the data needs to be simplified to agree and disagree. Running the chi square test on the first three questions, results in a significant positive outcome for all three questions (See Appendix, Figure 4). Looking at the percentages of people that responded positively, it's very clear in general a significant majority of people care about the environment (Q1: 75%, Q2: 95, 8% Q3: 87, 5%). Also 95. 8% of the respondents indicated that they are aware of environmental problems caused by human consumption. (See Appendix, Figure 5) When asking respondent's why they think taking care of the environment is important, a common answer is 'Sustainability' and 'Biodiversity'. In short: The vast majority of people is aware of environmental problems and thinks taking care of the environment is important because of 'sustainability' and 'biodiversity'. Are consumers convinced buying products from environmentally responsible companies will offer a solution for environmental problems? Questions 6A and 6B are both questions indicating that the consumer believes buying products from environmentally responsible companies will have benefits for the environment, if answered positively. A 'one sample chi square test' on both of these questions tell us that a significant majority answered these questions positively (See Appendix, Figure 6). This means that consumers think that companies need to pay attention to the environmental impact of their activities. The industry and the shop chains have to change their methods of production and selling

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of the products. By looking at the way people answered the questions, one can say that consumers almost demand companies to be environmentally responsible. Not only do they want companies to meet the legal requirements (with regard to the environment), but they want companies to really examine and optimize their production process in order to minimize the use of energy, pollution and waste. From our research it is very clear that consumers are aware of environmental problems and want to do something about it. They also believe that the environment will benefit from companies that produce and sell products in an environmentally responsible manner. This is why they are not only willing to buy products from environmentally responsible companies, but are almost demanding companies to be environmentally responsible. Do consumers act upon their environmental beliefs? In the previous question, we have found that consumers prefer environmentally responsible produced products. However this does not necessarily have to mean that consumers act upon this. First of all we have to know if consumers believe that they (the consumers) are responsible for making a change and buy eco-friendly products. This is what Q6C asked our respondents. The result of the 'one sample chi square test' is that a significant majority of the respondents think that consumers are responsible to make a change in purchasing 'eco-friendly' products (See Appendix, Figure 6). So now we know that not only do people believe companies should produce in an environmental responsible manner, but that they also believe consumers are responsible to buy the products of those companies. As it is common knowledge that people don't always do what they think others should do, let's take this research a step further and take a look at how the individuals themselves behave. Question 7A answers this perfectly, by <https://assignbuster.com/consumer-behavior-research-project/>

asking: “ Do you consider yourself as a person who is striving to be a more ‘ eco-friendly’ consumer? ” This time a ‘ one sample chi square test’ tells us nothing, because there is no significant majority of people who agree or disagree. The ‘ one sample chi square test’ is therefore not of use this time. A ‘ Related-Samples Wilcoxon Signed Rank Test’ is useful in this case; this test measures the differences between the answers on question 6C and 7A and then tests if the media between them equals zero (not significant). The result of this test is a rejection of the null hypothesis ($H = 0$ $\hat{=}$ „ Median of differences between Q6C and Q7A equals zero.). A closer look at the results tells us that people don’t do what they think others should do (See Appendix, Figure 7). This result is very interesting, and in laymen’s terms means that a majority of the people claims that ‘ consumers are responsible to make a change in purchasing ‘ eco-friendly’ products’ but do not ‘ consider themselves as a person who is striving to be a more ‘ eco-friendly’ consumer’. To make matters worse the same test between Q6A and Q7B also leads to a rejection of the null hypothesis (See Appendix, Figure 8). Meaning that a majority of the people think consumers are responsible to purchase ‘ eco-friendly’ products, but not purchase them themselves or talk about environmental issues with friends. What do these findings mean for the answer on the question if people act upon their environmental beliefs? Even though our results are not directly in favor of a positive answer on this question, we can make some nuances. Because when looking at the descriptive statistics and frequencies we can obtain that still 37. 5% of the consumers strives to be a more ‘ eco-friendly’ consumer (vs. 29, 2% not & 33, 3% don’t know). (See Appendix, Figure 9). In short, not all consumers how see the importance of ‘ eco-friendly’ products, act upon this. Sometimes they do not act upon it,

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even if they believe consumers are responsible for making choices and buying eco-friendly products. But there are still a lot of people who do act upon it and strive to be more 'eco-friendly' consumers. Now we have a positive answer on the first two sub-questions, the conditions for the hypotheses to hold are met. There is demand for products from environmentally responsible companies. However, this is still no conclusive evidence that engaging in environmental responsibility will increase profits. For that, some empirical proof is needed. Is there empirical evidence of increased profits by engaging in environmental responsibility? In order to give a reliable conclusion about the third question of our problem statement, Is there empirical evidence of increased profits by engaging in environmental responsibility?, already existing literature was used. But before something meaningful can be said about increased profits, the term environmental responsibility(ER) and also increased profits itself need to be defined. In the literature studied, the ISO14000 standard was used to signify ER. The use of this standard, or certificate, is to[1] 1. Recognize and manage the environmental impact of a firm's activities, products and services. 2. Give the firm support to constantly improve their impact on the environment. 3. Give a firm the methods to set environmental goals and methods how to achieve these goals. Among these methods to reach these environmental goals are management systems that take into account the environment and also the use of product labels. Beside the certificate for ER, increased profits also needs to be defined. This can be done by looking at the market value of a firm. The market value of a firm represents the book value plus expected future earnings[2]. The book value consists of all assets on the balance sheet of the firm[3]. An increase in the market value of a firm will show that a firm

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has become more worth, because its assets have increased in value, for example its current assets has risen. Another possible increase in market value is by a change in expected future profits. For instance, the disclosure of forecasted profits by the board of the firm can increase market value.

What does the empirical evidence reveals about environmental responsible firms? The study that was used compares the market value of 156 Egyptian firms over 3 years, between 2003 and 2005. Of the examined firms, 84 of them did have an ISO14000 certificate; the other 72 firms did not have a certificate. Next, the research looks at the contribution of such an ISO14000 certificate, the dependent variable, to the market value, the independent variable. Being environmental responsible as a firm, has a positive and significant impact on the market value[4]. Thereby, the research concludes

that the firms, who do have the ISO14000 certificate, have increased their market value. In other words, the research found that applying ER to your firm is positively reflected in your market value and, on average, does not lower your market value.[5] Discussion Survey The first obvious shortcoming of the survey is the low number of respondents (24). With such a low number of respondents, statistical test are not very reliable. Most of the respondents fell into the same age group, meaning that the survey is not a good representation of the population. Also a lot of respondents were irritated by the large amount of open questions, which could lead to rushed answers.

Literature Study Now we have seen that the practice of ER is profitable, we will look at the shortcomings of this research and its results. The first downside of the research, from a company's perspective, is the fact that we do not know by how much ER is profitable. Indeed, the goal of the firm is to maximize shareholders value as much as possible, mainly in order to attract

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new and reward current shareholders. However, we do not know to what extent engaging in ER is more (or less) beneficial in comparison to firms that do not produce with the environment in mind. Firms will only engage massively in ER when it will maximize shareholders value more than when they do not apply ER to their firm. This research does not provide conclusive results on this topic. Another downside of the research is that it only focuses on Egyptian firms. A study that takes firms of other countries into consideration will provide a better conclusion. Although Egypt has a free market economy, a research conducted in the West with positive results regarding to profits due to engaging in ER, will inspire Western firms more than the same outcomes in Egypt. Furthermore, the small period the research evaluates, 3 years, is subject to market fluctuations. It could be that the general stock market, where the market value of a firm is based upon, improved during these examined 3 years. On the other hand, the environmental business is changing constantly. A research that examines a period longer than 3 years needs to account for increased legislation regarding waste and pollution, which would increase the difficulty of the research. Lastly, we also face the limitation of why firm profits increase by involving in ER. Having concluded that engaging in ER is profitable is step 1, why engaging in ER is profitable, is the next step. Is it because firms that practice ER are selling more? Do these firms sell more because they can sell their products for a lower price? Or do they sell more because customers or businesses who purchase these products or services perceive more value because these creations are produced responsibly? Or do profit increase because firms have smaller expenses to produce the same amount of products or services? Are those lower expenses the result of economies of

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scope or economies of scale? All those questions are beyond the scope of this research should be answered with future research. Conclusions This research tried to answer the question whether or not engaging in environmental responsibility can increase the profits of a company. After finding that consumers really prefer environmentally responsible produced products in the first sub-question, the second sub-question asked if they also act upon this. The answer was somewhat interesting because a lot of respondents believed the consumer is responsible for eco-friendly consuming, but at the same time didn't strive to be 'eco-friendly' consumers themselves. Nevertheless a lot of consumers do strive to be 'eco-friendly' customer. It is beyond the scope of the research to look at the reasons don't do what they want other to do, but is interesting for further research. After concluding there is a demand for environmentally responsible produced products, the research continued by looking at empirical proof for supply these environmentally responsible produced products. Knowing those consumers are willing to buy, there is possibility for firms to supply these environmentally responsible produced products. However, firms will only produce and provide these products when this is more profitable than their current supply. In order to determine whether it actually pays off for a firm to provide environmentally responsible produced products, a literature study looked at this. The literature study provided empirical proof that firms engaging in environmental responsibility have an increase in profit or market value. This conclusion is somewhat positive because there is a positive relation between producing environmentally responsible produced products and the market value of a firm. However, the literature study did not give insight into whether applying environmental responsibility to a firm

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outperforms firms that do not practice environmental responsibility. This leaves room for future research to examine to what extent engaging in environmental responsibility is beneficial for a firm's profits. References

Books Frank, Robert H. 2008. Microeconomics and Behavior. Europe: McGraw-Hill Education. Blackwell, Roger D., Miniard, Paul W., Engel, James F. 2006. Consumer behavior. Mason: Thomson/South-Western. Papers Wahba, H. 2008. " Does the market value corporate environmental responsibility? An empirical examination, " Corporate Social Responsibility and Environmental Management 15: 89—99. Appendix Figure 1 | Cronbach's alpha | Internal consistency | | $\hat{\alpha} = .9$ | Excellent | | $.9 > \hat{\alpha} = .8$ | Good | | $.8 > \hat{\alpha} = .7$ | Acceptable | | $.7 > \hat{\alpha} = .6$ | Questionable | | $.6 > \hat{\alpha} = .5$ | Poor | | $.5 > \hat{\alpha}$ | Unacceptable | Figure 2 | Reliability Statistics | | Cronbach's Alpha | Cronbach's Alpha Based| N of Items | | on Standardized Items | | .878 | .889 | 4 | Figure 3 | Tests of Normality | | Kolmogorov-Smirnova | Shapiro-Wilk | | Figure 4 | Test Statistics | | Q1 | Q2 | Q3 | | Chi-Square | 10.714a | 20.167b | 18.182c | | df | 1 | 1 | 1 | | Asymp. Sig. | .001 | .000 | .000 | | Figure 5 | Q1 | | Frequency | Percent | Valid Percent | Cumulative Percent | | Valid | | Frequency | Percent | Valid Percent | Cumulative Percent | | Valid | | Frequency | Percent | Valid Percent | Cumulative Percent | | Valid | | Frequency | Percent | Valid Percent | Cumulative Percent | | Valid | | Q6A | Q6C | | Chi-Square | 14,727a | 11,842b | | df | 1 | 1 | | Asymp. Sig. | .000 | .001 | | Figure 7 [pic] Figure 8 [pic] Figure 9 [pic] ----- [1] http://www.iso.org/iso/iso_14000_essentials [2] <http://www.investopedia.com/terms/m/marketvalue.asp#axzz1fUqMwWqQ> [3] [pic]()*+,-.78Å <Å'? Å½? ÅµÃ Å◆Ã, ³£ÃµÃ, "? n[Ã, H