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Eco-business: What, Why, How and Who?

A study on Eco-friendliness of Footwear Companies

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<p>The purpose of the thesis was to study eco-friendliness of footwear companies. The guiding research questions in the thesis were whether eco-friendly footwear companies exist and if eco-friendliness is profitable. The sub-questions: why should companies be eco-friendly, how can they be, and who is eco-friendly were also answered. Environmental concepts and theory of eco-business were covered and four footwear companies: Timberland, Nike, OAT Shoes and LYF Shoes, studied closer. The findings were based on secondary data from literature research: books, company reports, online articles and online statistics. Primary data was acquired from a small consumer survey that was conducted to get additional insight to the question on whether eco-friendliness is profitable.</p> <p>The conducted research showed that eco-friendly footwear companies do exist, but they are not absolutely environmentally friendly. Footwear companies have made significant eco-friendly improvements in their material and assembly choices and there is wide variety of business tools available to be eco-friendlier. However, the nature of footwear industry promoting fast cycled consumption is unsustainable. To the question whether eco-friendliness is profitable the answer is yes. Eco-business reduces production costs with improved water- and energy-efficiency, waste management and material choices. Eco-business also enhances the brand's image. However the results of the questionnaire revealed that the respondents were not aware of Timberland's and Nike's eco-efforts, and great majority did not consider them very eco-friendly companies. Half of the respondents still believed that eco-friendly companies in general do exist.</p>	
Keywords	Footwear, eco-friendly, sustainability, eco-business

Contents

1	Introduction	1
2	The object of the study	3
	2.1 Environmentally friendly companies	3
	2.2 Textile, clothing and footwear companies	4
	2.3 Environmental concepts	6
	2.3.1 Globalisation	6
	2.3.2 Sustainability	7
	2.3.3 Environmentally friendly	10
	2.3.4 Green	11
	2.3.5 Eco-business	12
3	Do eco-friendly footwear companies exist?	13
	3.1 Why should companies be eco-friendly?	13
	3.2 How can companies be eco-friendly?	15
	3.2.1 Managerial aspects	15
	3.2.2 Practical aspects	16
	3.2.3 Green tools	19
	3.3 Who is eco-friendly?	20
	3.3.1 Timberland	21
	3.3.2 Nike	23
	3.3.3 OAT Shoes and LYF Shoes	25
	3.4 Do these eco-efforts make them eco-friendly companies?	26
4	Is eco-friendliness profitable?	28
	4.1 Does Timberland profit from eco-business?	28
	4.2 Does Nike profit from eco-business?	29
	4.3 Are consumers aware of the eco-efforts?	29
5	Conclusion	32
	5.1 Recommendations for further studies	33
	References	34

Appendices

Appendix 1. Survey research methods

Appendix 2. Questionnaire

Appendix 3. Survey results

1 Introduction

22 billion shoes are produced a year worldwide which is three times the amount of people in the world. Footwear has become disposable fashion and footwear companies who promote this consumption are hard to believe to be eco-friendly. The purpose of this thesis is to study eco-friendliness of footwear companies. The intention is not only to answer the research questions but also to encourage the reader for further reflection on footwear manufacturing and consumption in the modern nations: to question the prevailing state of it. It is important to know what companies are doing as their environmental impacts are great in scale. Consumers should critically think about their consumption's environmental impacts and demand companies to do the same. This thesis investigates why should and how can footwear companies implement eco-friendly practices and if there are companies doing that and if they benefit from it.

The guiding research questions in the thesis are whether eco-friendly footwear companies exist and if eco-friendliness is profitable. The sub-questions: why should companies be eco-friendly, how can they be, and who is eco-friendly are also answered. The findings are based on secondary data from literature research: books, company reports, online articles and online statistics. Primary data was acquired from a small consumer survey that was conducted to get some additional insight to the question on whether eco-friendliness is profitable. The thesis will cover the theory of eco-business, the reasons behind it and introduce four footwear companies that are applying eco-friendly practices in their business. In the chapter two the work introduces the object of the study: the footwear industry and then explains to the reader the concepts of globalisation, sustainability, eco-friendly, green and eco-business, that need to be understood before addressing the research questions. The research questions will be answered in the chapters three and four, including the findings of the consumer survey, and then followed with conclusion of the whole research.

Earlier studies on eco-friendly companies in general have been made. There is good amount of literature on green business, many of them being guidebooks and case studies on eco-friendly practices and example companies. Very helpful literature for

this research has been the works of Croston, Dauvergne and Lister, Esty and Winston, Iannuzzi and Koester. Those studies generally, not industry specifically, describe the current state of eco-business. Analysis on footwear sector's environmental impacts was found made by Albers, Canepa and Miller, and Markkanen. There is no previous academic research done to specifically investigate if it is possible for footwear companies to be eco-friendly and whether it is profitable. This thesis addresses that problem.

2 The object of the study

2.1 Environmentally friendly companies

Environmentally friendly companies are an important focus for research as the environmental damage that business activities generate is significant. The 3.000 top public companies are responsible for one third of the total global environmental damage the humans cause. Out of total USD 6,6 trillion, the cost of the environmental damage they caused in 2008 was USD 2,15 trillion, that is equivalent to 11 percent of the total global GDP. (The Environmental Leader, 2010)

The environment's wellbeing directly affects the functions of companies and societies. Humans are connected with the environment and depend on it for resources (Esty & Winston, 2006:3). The concern and management of the extremely relevant and current issues like global warming, water scarcity, toxic chemicals, and extinction of species dictate who will survive. The companies, that find the solutions to manage and operate with these environmental issues in mind, will lead the competition in the future. (Esty & Winston, 2006:8).

The world economy is built on a concept of growth (Smith & Wolfe, 2011:4; Suarez-Villa, 2015:258-259) but the planet cannot support the kind of growth that is now prevailing. Economic growth is measured by gross domestic product (GDP) (Smith & Wolfe 2011:242). GDP represent nation's total output of goods and services, meaning the spending and buying of the nation (Smith & Wolfe 2011:44-46). These products that are produced using natural resources by escalating rates are not sustainable. Humans are using natural resources in a rate that exceed what Earth can generate each year. At the moment it takes the Earth one year and six months to regenerate what humans are using in a year. (Global Footprint Network, 2015) There is a conflict between the traditional economic growth and existence of a healthy environment. This work investigates if footwear companies can and how they can conduct their business without disturbing the environment's healthy balance.

2.2 Textile, clothing and footwear companies

The industry focus of this research is on the Textile, Clothing and Footwear sector (TCF), more specifically on the footwear sector. Nike and other footwear companies have been under extreme pressure starting from the 1990's after scandals and news about the poor working and environmental conditions at their factories (Iannuzzi, 2012:149) and is an illustrative industry example of how businesses are forced by market pressures to start thinking in a more environmentally friendly manner. The stock prices of companies have been seen affected by poor sustainability practices, as it was for Nike 20 years ago (Birch, 2012; Iannuzzi, 2012: 8). Since then along with Nike big footwear brands such as Adidas and Puma have started establishing more environmentally friendly practices (Birch, 2012).

The footwear sector uses many materials in its production – from textile, plastics and rubber to leather (European Commission, 2015a). Nike shoe, for example, can consist of 30 different materials (Nike Inc, 2015a). Footwear manufacturing is not considered to have heavy environmental impacts compared to other industries, such as mining, however its raw materials, specifically plastics and leather, are harmful to the environment. (European Commission, 2015b) Footwear manufacturing uses chromium tanned leather, synthetic rubber and chemical-based adhesives, which release dangerous greenhouse gases and toxic substances when produced and disposed (Albers, Canepa & Miller, 2008: iii).

The EU's TCF industry is an important part of the European manufacturing industry. In 2005 it consisted of 250.000 businesses, which was 12 percent of the whole manufacturing industry in the EU. It counted for 9,3 percent of the total employment in the EU. (EESC, 2008: 12) In comparison between continents, footwear production in North America was only 2 percent out of the world total, when it was 4 percent in Europe and 87 percent in Asia in 2013 (APICCAPS, 2014: 3). The majority of footwear sold in the USA comes from China that manufactures 8 out of 10 shoes purchased in the US footwear market (AAFA, 2014). Worldwide proportion that China produces is two out of every three pairs of shoes (APICCAPS, 2014: 3). From the 22 billion shoes produced worldwide in 2012, Europe consumed 2.510 million pairs and USA a bit less with 2.237 million pairs (APICCAPS, 2013). These numbers show that more shoes were produced in a year than there are people on the planet, the current estimated

population being 7.309 billion (Worldometers, 2015). Even though there are less than half (Europe 742 and USA 323 million) the people in the USA than there are in Europe, the USA consumes nearly the same amount of shoes a year than Europeans do (APICCAPS, 2013; Worldometers, 2015).

The industry is an interesting focus in this research because “the Textile, Clothing and Footwear sectors (TCF) are one of the most globalized sectors” (ILO, 2015). It employs 60 million workers worldwide and is a key employer in the developing countries (ILO, 2015). It seems that the sector has great worldwide impact and that is exactly why attention to the TCF companies should be drawn. The sector can contribute a lot to economic development as it is a big employer and huge in scale. What has perhaps driven many companies to conduct business in a non-sustainable manner is the scale and vulnerability of the market. Due to the global nature of the sector, companies have to deal with cost competitiveness, product innovation and ever-increasing competition worldwide. (ILO, 2015) The great possibility for businesses to utilise the labour in developing countries and to keep up with the competition surely motivates companies more towards bigger profits and growth, than towards greater commitment to do business in a more environmentally friendly manner.

Footwear is worn by the majority of the world’s citizens on an everyday basis. Shoes cover a basic need: they protect the feet and keep them warm. The function of footwear has changed from merely a way to protect oneself from the elements into a fashion statement (Pierre-Louis, 2012: 29-31). Shoes are accessories like jewellery, a product we consume in vast amounts and not anymore just a way to be able to walk outdoors. Can we expect that consumers are ready to change their consuming habits and consider more the impact that footwear has on the environment? How can textile companies change? How can we expect them to change their attitude from creating easily disposable “fashion” to produce and sell less? Or is that even what we need them to do? Can the industry continue in the same way but just produce in an environmentally friendly way?

2.3 Environmental concepts

The concepts of globalisation, sustainability, eco-friendly, green and eco-business need to be understood before addressing the research questions. Sustainability is often linked with the terms "environmentally friendly" and "green". In a consumer survey (See Appendices 1-3) conducted for the purpose of this research, 38,5 percent of respondents said that "sustainable" out of multiple terms offered best described "environmentally friendly" but many also said that whole group of words mean the same thing with "environmentally friendly". Companies like Air Miles state that "the term 'environmentally friendly' means making choices that are better for the environment. Another term that we use to mean the same thing is 'sustainability'." (Air Miles, 2015) It is best not to argue about the actual definitions of the terms, nor about whether there is much difference in their basic meanings. These are descriptive words, not concrete concepts because the terms represent newer values for old nations so concentrated on economic growth. That is for sure that the concepts are closely related and can appear together. It is important to remember that there can be as many interpretations of the terms sustainable, green and environmentally friendly, as there are consumers and companies. Below those terms together with concepts of globalisation and eco-business are defined in a way that helps the reader to better understand the topics later discussed in this research.

2.3.1 Globalisation

"The world used to be so simple, so understandable – so local" (Smith & Wolfe, 2011: 203). Now the world is global and everyone is connected. Is globalisation good or bad? The nations have driven towards growth and connection with other nations for many centuries. The search for better living conditions and utilities that would enhance living has made globalisation a common word and concept, which relates to everything we do. As Smith and Wolfe would say, many do acknowledge that globalisation makes our lives richer. There are more products to choose from and many things to enjoy thanks to globalisation, without which we would not have such a great abundance of materials and services. Globalisation contributes to employment and the economy in a positive manner, but it also creates unfair distribution of the materials produced and the jobs required for the production of them. The majority of people enjoy the benefits of

global trade but that is not the case with everyone. (Smith & Wolfe 2011: 210) For quite some time the footwear industry trend has been to manufacture products in Asia and then sold in the USA and Europe (Markkanen, 2009: 1-6).

Globalisation, say some environmentalists is the core problem in achieving a more stable and sustainable system. What pollutes a lot and creates inequality is the moving of raw materials, waste and products across nations and continents. What is most regrettable in the modern state is that the products made in local communities are more expensive, than the products that have consumed tons of energy in producing and transporting them from primarily China to Europe and United States. (Nordberg-Hodge, Gorelick, and Page, 2013) Globalisation offers opportunities for many, but those many are usually large in scale: multinational corporations and wealthy consumers. Some people and environments benefit from the trend, others do not. How does globalisation affect the environment? Well, the activities of big global corporations raise suspicions. When the big global corporations are under extra scrutiny by regulators and other organisations worldwide to conduct their business in an ethical manner, the corporations are more likely to also act in a more environmentally friendly manner (Esty & Winston, 2006: 15).

2.3.2 Sustainability

Sustainability is something that relates very closely to big corporations. The leading footwear brands have included sustainability to their business principles and communicate about their sustainability efforts (Adidas, 2014: 42; Nike Inc, 2010; Puma SE, 2014; Timberland, 2015a: 1). But still "There is a genuine conflict between three generally accepted aims: prosperity, equity, and ecological sustainability." (Hornborg & Jorgenson, 2010: 114) What the word sustainability actually entail? Can the prosperous people stop consuming at the rate they are now consuming, and at the same time still enable the same progress for the people who have not got it yet? This conflict is closely related to the globalised footwear sector that wants to saturate the needs of all consumers and potential consumers in the future. Producing footwear on big scale and in a totally environmentally friendly manner is just not happening yet. Problematic with the footwear industry is that majority of the production is concentrated on one area: Asia (See page 4), materials sourced with the expense of local ecosystems (See page

26) and the products transported long distances (See above page 7) to prosperous consumers that already enjoy most of the wealth in the world. "If our prosperity and sustainability are ultimately dependent upon draining other nations or regions of their resources and the production capacity of their ecosystems, then our kind of wealth creation and "sustainability" must be considered fatally flawed." (Hornborg & Jorgenson, 2010: 60). If the sustainability that the companies in the western world talk about is about exploiting other nations and areas of their natural resources, how can we ever call it green or eco-business? Timberland, Nike, and Puma among many are using the "trade power" (Hornborg & Jorgenson, 2010: 60) when they buy from economically less developed countries to more developed ones.

The term sustainability can be explained as the "physical balance between the human society and the natural environment" (Bosselmann, 2008: 12). According to Bosselmann, sustainability is essential for human survival: "The air that we breathe, the water we drink, the soils that our food comes from" (Bosselmann, 2008: 9). He writes interestingly about sustainability in his book *Principle of Sustainability*. Bosselmann points out that there has never been a sustainable society. Just like inequality has always existed between the rich and poor, and countries and cultures, so has it been between ecological sustainability and economic prosperity. Bosselmann links sustainability with justice. Both are similar kinds of concepts, as both interpret that everyone knows there is 'good' and 'bad', and it is common knowledge to recognise both of these concepts. The use of fossil fuels and an increasing amount of waste are bad things because it is unsustainable. Like justice, the word sustainability is hard to define unambiguously as there are no unified criteria and principles for the definitions. Justice and sustainability have multiple dimensions and examples of what they can mean, what is considered 'good' and 'bad', and how one perceives the concepts. Humans realise the importance of sustainability, just like they appreciate and need justice. Sustainability is something essential that should be promoted, as we depend on the air we breath and the soil that gives our food and water. However, people are still too isolated from nature and too tied to old habits to act as fast to protect it, just like they would act to gain back justice. (Bosselmann, 2008: 9-12) Bosselman claims that "None of today's societies is sustainable" (Bosselmann, 2008: 10) as the big scale wasteful production practices and consumption are unsustainable. Bosselmann makes sustainability seem like a utopic idea that is hard to put into

practice in our consumption oriented societies. (Bosselman, 2008: 9-12). Even the word's "consumption" Latin origin refers to a negative notation of consumption being bad: *consumptio* means "wasting" in Latin (Pierre-Louis, 2012: title page).

In contrary to consumption, saving could be practiced more. Saving gives pleasure and is natural for some people, "but economists usually abstract from such pleasure: the only thing that gives me happiness now – utility – is current consumption" (Collier, 2010: 97). This Collier's founding suggests that not only are economic theories in favour of constant growth (See page 3), but they also favour consumption. If one is to believe the economists and consider the economic systems and practices, sustainability seems distant and laborious endeavour. How to start saving natural resources and consume less when the current system is so incompatible with that idea? Can the footwear companies suddenly change their practices completely?

Collier points out that the only sustainable way of using non-renewable resources is not using them at all. Just like Bosselmann critiqued (See page 8), the idea of total sustainability is utopic. Collier writes how economists help to see sustainability as something that is not the same as preservation, and says that the exploitation of natural resources should not be avoided – maybe they would not even exist if the humans were not using them. Economic growth has been sustained for two centuries, but no single activity has been sustained for long. In the nineteenth century the British Government realised that wood they used for building ships was going to deplete. Instead of stopping ship manufacturing people found new materials. Development and innovation is sustained, however the methods are changed when resources run out. (Collier, 2010: 98)

This perspective is similar to the one of The World Commission on Environment and Development as they define sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987: 2: I). The use of natural resources cannot be halted now and completely, when only a portion of the world's population has had the chance to enjoy the improved quality of life the development and use of natural resources has enabled. Sustainable development is to meet everyone's needs within the limitations of technology and the

environment's resources for now and in the future. Economic growth is, according to the Commission, required in places where the minimum for proper living standards has not yet been met. In places where living standards are above the minimum and consumption is beyond ecologically reasonable limits, economic growth can be consistent with sustainable development if principles of sensible consumption are promoted. (World Commission on Environment and Development, 1987: 2: I) The question is whether footwear companies can promote sensible consumption?

2.3.3 Environmentally friendly

Air Miles says that environmentally friendly to them means making good choices considering the environment (See page 6). The term implies that product is not harmful to the environment, when made or used, as the environmental factors have been taken into consideration in it's manufacturing. (Pearson Education Limited, 2015)

The idea of environmentally friendly is so new that no common, clear unambiguous explanation or definition has been formed yet. The problem with the word is its multitude of meanings. The consumer survey (See Appendix 3) conducted for the purpose of this research revealed that 46,2 percent of the respondents think that "sustainable", "green", "organic" and "energy-efficient" all describe accurately the concept "environmentally friendly". When a product obtains one characteristic that is considered environmentally friendly, that is often enough in business to claim it to be one. With products, many factors are involved in the production process, not all of which are environmentally friendly. One example of a case like this is solar panel manufacturing, where the production of one ton of polysilicon creates four tons of poisonous by-products that are destroying the local environment. Solar panels are eco-friendly but the production of them is not. (Pierre-Louis, 2012: 142-143)

Environmentally friendly is often shortened to 'eco-friendly'. It is a common notion that these terms are interchangeable and in this research the term eco-friendly is used as an abbreviation for the term environmentally friendly.

2.3.4 Green

The word 'green' can mean many things. Green is associated with nature as many things in a forest or a park are green. When companies and consumers want to associate their products with nature, they use words like "green products" and "green businesses". Green is also associated with all the other terms that relate to nature. Terms like eco-friendly, sustainable, recyclable and natural can all mean "green". It depends on the person and how one perceives the word. The tricky part is that "green" is not defined by any formal standards or by any authority (Pierre-Louis, 2012: 64-65). "Green" is definable by every one personally; consumers and companies can use the word as they wish. This is a great opportunity for marketers who play with perceptions and mental images as well as with emotions that an allusion evokes in the receiver (Khan, 2006: 88-91, 95, 150-151), rather than true facts and specific attributes.

Koester, in his green guidebook for entrepreneurs, defines green business as something that requires "a balanced commitment to profitability, sustainability and humanity" (Koester, 2011: 8). His definition implies that environmental factors are not the single driver for green operations, but that making business profits and being fair goes hand in hand. Croston's definition, in his green entrepreneur book, is similar though a bit more specific: "Green Businesses have more sustainable business practices than competitors, benefiting natural systems and helping people live well today and tomorrow while making money and contributing to the economy." (Croston, 2009: 6). Both definitions strongly imply, that the underlined motivation for a business is to make money. These two definitions are as broad as the word green itself. For the author of this work, green in business settings is still no way near being totally green. After researching on Koester and Croston, it seems that green ideologies are still not dressed as more important than the growth and profit targets of a company.

Green in this research refers to products and practices that are sustainable and environmentally friendly. Green does not imply absolute greenest, but differentiates normal unsustainable acts from better acts that take into consideration the environment's health and limits. Green does not mean zero use of non-renewable resources, but use of relatively less of them, as well as all natural resources. Green also means smart and environmentally friendly waste management practices and

creating less of it. Green basically is minimizing use of environmental assets and rethinking how business should be conducted.

2.3.5 Eco-business

All the concepts and terms introduced above relate to the central concept of this research: environmentally friendly business, from here on: eco-business. The popular trend in the market is doing eco-business (Bosselman 2006: 1; Dauvergne & Lister, 2013: 1-2; Esty & Winston, 2006: 7-9) and the overuse of the word 'sustainability' (Bosselmann, 2006: 9). This of course is a good sign, however the word sustainable or eco-friendly does not always tell the whole truth.

Eco-business means companies acting more environmentally friendly and integrating sustainability principles in their operations. The sustainability efforts often relate to better waste, toxics and energy management. Various big global corporations are doing this what can be called eco-business. (Dauvergne & Lister, 2013: 1) The concept of eco-business is the invention of corporations and marketers, not by any governing body that would ensure that all eco-businesses are obeying the same 'green' rules and regulations. There are principles like: ISO 14020: Environmental Labels and Declarations - General Principles (Green Seal, 2015) that place standards for ecolabelling, and non-profit associations like The Global Ecolabelling Network (GEN) to provide information on eco-matters (Green Seal, 2015), but still it is in the hands of corporation how they conduct this new eco-business. When performance and success is not measured by how environmentally friendly and responsible a company is, rather by how well it is creating profits for shareholders, a problem emerges. However that is something that will not be changed over night. For now, eco-friendlier ways to produce the products the consumers desire must be conceived and implemented. Later, hopefully, the whole economic system and old-fashioned ways of thinking only about growth and globalisation and abundance of 'stuff' will be reshaped and connected with the planet's limitations. In the following sections the questions about eco-business will be discussed: Why should companies be eco-friendly, how they can do it and what are footwear companies doing to be eco-friendlier.

3 Do eco-friendly footwear companies exist?

Eco-business is a USD 200 billion market with thousands of companies claiming to be green businesses and various big multinational companies are working hard on their brand image to align themselves more closely with eco-business. (Koester, 2011: 11) How does the environment relate to companies? The connection is simple and straightforward: societies and economies depend on nature and natural resources that are harnessed from it. Every product is directly related to the environment because all the ingredients or components are either grown in nature or mined from it. (Esty & Winston, 2006: 3) So actually the existence of companies is straight connected with environment's existence.

This chapter introduces the theory of eco-business and four different companies that are applying green practices in their operations. The main focus is on large-scale operators because they set the course for all the other competitors in the market. If the giants can make environmentally friendly products, then the smaller companies can as well. As is generally assumed, environmentally friendly products tend to be a bit more expensive than products not made in such a sustainable way (Iannuzzi, 2012: xii,153). So when the price is set according to sustainable production costs, all could produce in a similar more environmentally friendly way.

3.1 Why should companies be eco-friendly?

The existence of footwear companies is dependent on nature's resources. There is no future for footwear industry if the natural resources run out. Without sustainable practices there will be no environment for the companies to operate in, so eco-friendly practices are necessary. In the light of this fact why is not everyone inventing greener ways to produce their footwear?

Even though Dennis Beal from FedEx has said that "There is no instant return on investment" (Dauvergne & Lister, 2013: 63) when implementing more eco-friendly company practices, many companies have had many cost-saving results of their new eco-friendly products introduced. They have also gained business value in terms of better product quality, risk management and consumer trust. The biggest advantage

might be the good publicity the companies are gaining from eco-business. (Dauvergne & Lister, 2013: 55-81)

Green guidebooks emphasize that smart companies are implementing environmental management in their core strategy and thinking differently about business. Some companies, the smart ones, have realised the potential of the green product market and it is predicted that they will be the ones who are going to sustain profit in the long run and who will occupy the position as market leaders. (Esty & Winston, 2006: 2-4) The potential and predicted future size of the green product market is extensive. The footwear giant Nike, among many, sees great potential in implementing sustainability principles and practices to improve company profits. (Dauvergne & Lister, 2013: 74-78). Not only are eco-friendly practices “the right thing to do” (Esty & Winston, 2006: 14) according to many executives, like Nike CEO, whom Esty and Winston interviewed, but also a way to gain intangible assets. Implementing green practices improves brand image, reputation, and most importantly employee morale and commitment. (Esty & Winston, 2006: 150). What is highlighted in many green guidebooks is that operating eco-friendly brings company competitive advantage. (Dauvergne & Lister, 2013: 132-133; Esty & Winston, 2006: 283-286; Iannuzzi, 2012: 160,149)

In market surveys, consumers rank high the environmental factors of the products they wish to consume (Iannuzzi, 2012: 143) and they desire for more sustainable products. 70 percent of the consumers in China, India and Brazil answered in a survey that they will spend the same amount or more money on green products in the coming years (Iannuzzi, 2012: 11). To give a number for the scale of the demand, the State of Sustainability Initiatives Review reported that the growth rate of eco-labelled product manufacturing was 41% in all standard commodity sectors in 2012 (Potts et al. 2014: 8). Eco-business is big scale, but also smart as it decreases the amount of resources and energy used, and waste created (Dauvergne & Lister, 2013: 12). The competitive advantage possibility is not only about saturating the market of an ever-growing number of conscious consumers who demand eco-products, but also about cutting costs in production. Global big brands have realised that even the smallest changes in company facilities can result in financial savings. An energy research has proved that a 10-percent reduction in the average store building’s energy costs increases sales by 1.26 percent (Dauvergne & Lister, 2013: 62). One concrete example

is IKEA saving on energy costs after installing motion detectors for lighting in their factories. Walmart also made savings of EUR 20.000 a year by simply reducing lighting from 32 watts to 25 watts (Dauvergne & Lister, 2013: 62).

Waste management is also a cost for a company. Waste does not add additional value to the product and can be a huge part of one's production costs. The more waste to handle, the more expensive the price will be. Again smart companies can address this issue by managing the waste better and, for example, by selling the loose material back to the supplier so they can reuse it. (Dauvergne & Lister, 2013: 71-72).

3.2 How can companies be eco-friendly?

"It requires something that is difficult for most of us: change." In the case of companies, it requires changes in products, processes, and procedures. It requires top-level commitment, but also grassroots support" (Iannuzzi, 2012: xi). To be more eco-friendly people, consumers and companies, need to make some changes in everything they are learned to do – as mostly they have inherited ways that have unnecessary burdensome effects on the planet: like discarding 1,2 KG of waste each day per person (The Economist, 2012). But to change our habits, which are deeply seated in us, and most importantly change our way of thinking is a long and hard process, a process not all of us have the strength and interest in doing. The businesses' role in the change is to offer the consumers something better, give them initiative to want the change (Iannuzzi, 2012: xi).

3.2.1 Managerial aspects

"Doing the right thing and doing what's good for business are not mutually exclusive." (Esty & Winston, 2006: 161). Doing the right thing draws positive attention from customers and regulators, which is crucial for any business. Esty and Winston lay down many aspects that an eco-business leader should possess. The starting point in being an eco-business is to adopt the right attitude. Seeing the connection between environmental preservation and the future of the company is the core idea in starting to adopt the eco-friendly mind-set of doing business. Another important thing is to be

innovative and entrepreneurial, which basically means to be ahead of the competition. (Esty & Winston, 2006: 145-165)

Nike has two maxims in their operation: they need to do the right thing and keep in mind their nature as innovators. They say that doing the right thing is possible through innovation. (Esty & Winston, 2006: 11-12) It all must start from the top. The visionaries of the companies, who obtain the skills of an innovator and entrepreneur, have to lead the way. Like at Nike, the CEO needs to keep in mind the "maxims", adopt the approach and only then can the rest of the company follow. Full commitment and persistence is vital. The leaders cannot accept no as an answer, nor settle for compromises. The environmental goals should be challenging for the company to execute, but never compromised from. (Esty & Winston, 2006: 156-158)

To enable such revolutionary development, the company should "Look at the forest, not the trees" (Esty & Winston, 2006: 146). Allowed timeframes for change should be flexible and reasonable and no instant payoff should be expected. As the whole mentality of going green requires, success should not be measured only in short-term earnings. To realise the significance of intangible gains is crucial. Long-term vision is necessary to pull greener practices through. (Esty & Winston, 2006: 146-156)

Understanding the market is also important. Companies need to keep in mind that they are judged based on feelings and not facts. The results of scientific, objective studies can be overlooked if the studied issue is perceived as morally wrong or bad as an action. When a consumer has a preconceived notion of how they feel about genetically modified food, the scientists assuring that the food is not a threat to one's health has no importance. This happened when the company Monsanto wanted to bring the sustainable GMO-based revolution to Europe and people protested so that Monsanto did not succeed in the European market. (Esty & Winston, 2006: 160-162)

3.2.2 Practical aspects

There is a wide spectrum of more practical aspects that a company can pay attention to in order to operate in a more environmentally friendly manner. Koester guides companies to build green by choosing the most energy-saving options for an office or

factory building's roof and flooring. The use of renewable energy should also be maximized with, for example, solar and wind technology. (Koester, 2011: 219-230). The choices of material make a big difference in building green. The production of building material is burdensome industry for the environment and many materials are still considered toxic for humans and when disposed of, for the environment. (Pierre-Louis, 2012: 99)

Not only should the buildings be energy-efficient and eco-friendly but also the use of them. Lighting can be planned more energy efficiently. Small changes can save a significant amount of money. (See page 15 examples of Ikea and Walmart). Energy-efficiently planned smart heating, ventilating, and cooling systems also save energy. The correct use of, for example, shading, windows and office design diminish the need for air conditioning and heating. (Koester, 2011: 219-230; Pierre-Louis, 2012: 102)

At offices and factories, the equipment can be chosen to be the most environmentally friendly options the market has to offer. This can be a computer with a certified ecolabel that guarantees that the product is more energy-efficient than its alternative. All the material needed in business operations could be purchased from the greener product category. (Koester, 2011: 220-221)

In the USA buildings were counted to produce 38 percent of the CO₂ emissions, which is more than the transportation and industrial sectors create. The buildings use 39 percent of energy, 40 percent of the materials used and 14 percent of the drinkable water. (Pierre-Louis, 2012: 99) Another big environmental burden are the toxics released in manufacturing processes in many companies and count as one of the biggest environmentally negative impacts. When chemicals used and released in manufacturing processes are treated better: by reducing and handling them carefully with appropriate disposal systems, the environment is better off. (Esty & Winston, 2006: 48-52; Pierre-Louis, 2012: 97-99)

Reducing, reusing and recycling have a positive effect on the company savings and the environment. Using less of resources such as: material, water and energy has a direct impact on production costs, and clever waste management and the reuse of material saves the company in costs that occur from disposing waste. Water efficient company,

for example, has rethought their operations and reduced the water they pump, treat and dispose of per unit of product produced, which occur as cost savings. (Dauvergne & Lister, 2013: 66)

Much of the waste ending up in landfills is packaging. Drastic about it is that most of that is recyclable materials such as cardboard and plastic. 40 million tons of recyclable material is burned and landfilled every year. (Dauvergne & Lister, 2013: 71) U.S. EPA estimates that 30 percent of the municipal waste in the USA is packaging-related material (Koester, 2011: 221). As Koester advises, companies should focus more on packaging and use green options (Koester, 2011: 221). Especially in the footwear section packaging is a very visible part of the product as nearly all the shoes come in shoeboxes.

Great examples of what big companies have done include altering the way they sell their shoes. Nike made its shoeboxes lighter in 2011. They updated their old box to be sturdier and lighter, and made it using 30 percent less material. This innovation saved approximately 200.000 trees. (Lesser, 2012)

Puma made a similar green move by altogether replacing its shoeboxes with reusable bags. The new "box" consists of one piece cardboard and a reusable bag. This packaging method uses 65 percent less cardboard than the standard shoebox and the bag is 100 percent recyclable material. Puma named the bag "the Clever Little Bag" and with this clever innovation, they save 60 percent annually, as the manufacturing of the bag uses significantly less water, energy and diesel. The light weight of the new packaging makes it cheaper and more eco-friendly also to transport with 500.000 liters less of diesel fuel needed. (Paul, 2010)

"The three C approach" (i.e. Cube, Content and Curb) is a green tool to design consumer goods' packaging. The Cube aspect questions how big the packaging box is. Content is about the material it is made of, and Curb is about recyclability of the box. (Dauvergne & Lister, 2013: 70)

3.2.3 Green tools

To manage all the new green practices implemented in a company, many tools are used. Life Cycle Assessment (LCA) is a well-established tool to address the product's total effect on the environment. LCA is "compilation and evaluation of the inputs, outputs and potential environmental impacts of a product system throughout its life cycle" (Guinee, 2002:5). The environmental burden measured with LCA covers all kinds of impacts a product has on its environment throughout its life cycle. The evaluation encompasses the cradle-to-grave life cycle of a product (Guinee, 2002:5), meaning from the acquisition of resources, all parts of production, to its use and disposal or recycling at the end of its useful life. (Guinee, 2002:5) In Timberland's iconic yellow leather boot manufacturing, the energy used at their factory was calculated to generate less environmental burden than the production of leather at the supplier. Calculating the environmental impacts with LCA tool, Timberland can direct its green efforts to the right activities, which have a more positive impact on the environment. (Esty & Winston, 2006: 191; Iannuzzi, 2012: 53)

Companies should track environmental outcomes: the products' impact on the environment, the resources used and the waste generated. Esty and Winston suggest that each company should choose its own environmental metrics to concentrate on depending on the situation, the field, product or factory. The journey of sustainability has to be measured with environmental metrics also to let people know where they are now. Metrics make environmental management possible, as without indicators - just like profits in monetary units - progress cannot be measured. Examples of the key environmental metrics a company can choose are in roughly these main categories: energy, water, air, waste and compliance. They can choose, for example, to observe the water used in production or how much toxic chemicals are released into the air. Along with the metrics, there must be an environmental management system (EMS) implemented as well to keep the whole package together. ISO Standards, for example, are a ready-to-be-implemented framework for an EMS. (Esty & Winston, 2006: 173-179)

The companies, which want to be eco-friendly, are also encouraged to partner with other operators. To make eco-friendly supplier orders possible, the manufacturers need

big scale in production. When instead of one there are ten companies demanding recycled paper, as an example, the supplier is more likely or able to supply that. Partnering with NGOs also benefits all and is nowadays necessary. It is a great way of finding solutions for more environmentally friendly company practices, as often the company itself do not have all the necessary knowledge. Partnering with NGO also improves the company image and saves them from the hassle of fighting with environmentalists as they are given possibility to engage. (Esty & Winston, 2006: 183, 293; Iannuzzi, 2012: xvi)

To encapsulate the steps of green engagement by a company, there is this idea of a simple three waves process. The first wave is to do no harm, the second suggest doing well by doing good, meaning that the improved efficiency will improve the bottom line. The third wave is about growing the top line by innovating. (Koester, 2011: 219) As long as environmental issues remain untied to company's strategy, it cannot be a leader and sustain its profitability. (Esty & Winston, 2006: 173)

3.3 Who is eco-friendly?

It is known that the use of toxic chemicals, non-renewable resources and the waste created by the footwear industry is harmful to humans and the environment (Albers, Canepa & Miller, 2008: iii; Markkanen, 2009: 23-27). If these issues are used as metrics to observe the major footwear companies, assumptions of their eco-friendliness can be made.

Nike and Timberland have been mentioned earlier as they have made smart green moves. Timberland, especially, has obtained a position as a great example of using environmental business tools and metrics mentioned in the previous chapter (See pages 19-20) to their advantage in creating greener products.

To demonstrate the environmental aspects, which can be expected from eco-friendly footwear, EU's Ecolabel logo criteria is presented below. The EU Ecolabel informs the consumer that the footwear they purchase fulfils the following criteria:

- Limited water pollution during production
- A reduction of emissions of volatile organic compounds during production
- The exclusion of substances harmful for the environment and health
- Limited residues of metals and formaldehyde in the final product
- The use of recycled packaging

- The careful control of different aspects of durability
- Excluded or limited substances (non-exhaustive list):
- Exclusion of certain azo dyes
- Exclusion of PVC (except recycled PVC for outsoles)
- No arsenic, cadmium and lead in the final product
- Limited use of formaldehyde and hexavalent chromium (European Commission, 2015c).

The eco-friendly PlanetShoes store sells only products that fulfil certain criteria. The eco-friendly footwear according to their standards should be made using renewable energy resources and out of sustainable and recycled materials – both the packaging and the shoe. (Planet Inc, 2015) Many footwear companies are implementing some of the above-mentioned criteria into their production practices in order to better preserve the environment. Timberland's, Nike's, OAT Shoes' and LYF Shoes' eco-friendly efforts are introduced next.

3.3.1 Timberland

Is footwear manufacturing unsustainable when the products are transported from China to American and European users? Globalisation, a topic discussed earlier in this report (See page 6), can be seen highly volatile to the environment as it includes lot of moving around of resources, products and suspicious practices that long supply chains can allow. With the LCA tool (See page 19), Footwear manufacturer Timberland could track down the impact of transportation of footwear (Iannuzzi, 2012: 53). Transportation accounted for less than 5 percent of the total climate impact and is not among the first things the company should tackle in the process of making their products more eco-friendly (Iannuzzi, 2012: 53). Material choices are a more crucial target for footwear companies to first concentrate on when going green.

Timberland has made a significant green initiative by introducing in 2007 (Timberland, 2015b) a program called Green Index®, where the LCA tool is used. Iannuzzi writes the Green Index®, as the most impressive greener product program out there. The index helps Timberland to innovate products that are more responsible, and aims to measure a product's environmental performance and its environmental impacts. (Iannuzzi, 2012: 52). Timberland was one of the first companies to assign a metric and calculation system for the environmental impacts its products have. To communicate this to their consumers, the Green Index® label is displayed on their shoeboxes in the

same way the nutrition content information is displayed on food product packaging. (Iannuzzi, 2012: 156)

How exactly does the Green Index® help the environment and does it make Timberland eco-friendly? Three metrics used in the index are: climate impact, chemicals used and resource consumption. In climate impact the amount of the green house gas emissions produced in the making of the raw material and producing the final footwear. The second metric, chemical use, indicates how much harmful chemicals like polyvinyl chloride (PVC) and solvent-based adhesives Timberland footwear includes. PVC is a very common and questionable chemical used in the majority of footwear, which can harm the environment and human health. Solvent-based adhesives can produce indoor and outdoor pollution if not treated appropriately. The third metric, resource consumption, indicates how eco-friendly the materials used are. Timberland products will have better eco-impact if it exploits less land, water and chemicals. Products made of recycled, organic (grown and harvested without synthetic chemicals) or renewable (fast-growing, plant based material) material is less harmful to the environment. (Timberland, 2015b)

Based on Timberland's index innovation, their products are greener now than they were before the invention. Does the good Green Index® score guarantee that the product and the company are eco-friendly? In numbers the new production method of Timberland's Earthkeepers™ 2.0. boot means 500.000 KG of less carbon than the old version of the boot used. The change is one unit point in the Green Index® score that scales from one to ten. (Iannuzzi, 2012: 53) The eco-friendly improvements in Timberland's Earthkeeper 2.0. boot have made it in total 50 percent recyclable at the end of its useful life (Timberland, 2015c). Its laces are 100 percent organic cotton, and their lining 100 percent recycled PET lining. The outsole is made of 42 percent recycled rubber that can be again recycled. (The Original Yellow boot, 2015)

Timberland has whole collection of Earthkeeper® footwear which all feature PET bottles in lining, recycled rubber in soles, leather from eco-friendly suppliers and other organic material (VF Corp, 2011: 33). In total 87,9 percent (2013) of the material Timberland uses in its footwear are recycled materials. One of the materials it uses is the recycled PET from plastic bottles. 128 million used plastic bottles have been used

this far in Timberland's footwear, which saves the landfills from this amount of waste. (Timberland, 2015d)

The eco-friendly changes are still relatively small in scale and the use of the index does not extend over all Timberland footwear. Only 5 percent of their footwear is part of the Green Index® program (Iannuzzi, 2012: 54). But progress in other areas has been made. In 2010 the company set a goal to remove PVC entirely from its shoes by 2015, and now, in 2015, 94,7 percent (Timberland, 2015e) of its footwear is PVC free. (Iannuzzi, 2012: 54; Timberland, 2015e)

3.3.2 Nike

Nike is known, not only as a super brand of athletic footwear, apparel, and equipment, but for their multiple campaigns and efforts to operate more sustainably (Lesser, 2012). The company has always treated innovation as its core driver (See page 16). Nike communicates to the public that innovation serves the customer, the company's growth and the environment (Nike Inc, 2015b). Nike's innovative approach to business shows also in its new eco-friendlier product designs. The transportation of the finished Nike products counts as 7 percent of energy used and 5 percent of emissions. As in Timberland's case, the biggest drawback is not the globalized nature of the business and moving of goods across continents, but design and manufacturing of the goods. (Nike Inc, 2014a)

Nike has seen significant effort in using recycled material in its clothing and shoes. Like Timberland, it utilises plastic bottles in its garments, but also its factories own waste. Nike has model of sneakers called "Trash Talk", which are made from the leftover material of the factories. (Stonebrook, 2014). On top of recycling material and reducing factory waste, Nike has designed shoes that consider the environment in its material use. An illustrative example is the Air Jordan shoe model, whose amount of material and glue was reduced by simply using more stitching (Stonebrook, 2014). Nike has also come up with a manufacturing method that creates significantly less waste. Nike FlyKnit is a technology that can reduce up to 80 percent of footwear waste (Nike Inc, 2013: 11). Since 2012 it has reduced 907.184 KG of waste: the weight of more than three world's largest passenger jets (Nike Inc, 2015c). FlyKnit innovation creates

lightweight, knitted fabric that, unlike normal sneaker's assembly, do not require multiple pieces to be cut and sewn together. This way the leftover fabric from cutting, production waste, is minimized. The technology weaves yarn into a single piece fabric that forms the whole upper part of a shoe. So Nike has figured out how to decrease the impact of the upper part of the footwear, but also gave attention to the soles. Some of Nike's models do not use the normal shoe rubber with toxic compounds, but 100 percent eco-friendly rubber. Again, as mentioned earlier (see page 18), not only is some of its footwear greener but it comes in 100 percent recycled shoebox, that Nike redesigned to lessen its environmental impact. (Stonebrook, 2014) Not just the box but Nike sneakers can also be recycled when returned to a shop, after which they are ground into material used in sporting surfaces like running tracks and football fields. (Nike Inc, 2015d)

Nike's eco-friendlier shoe lines do not end with Trash Talk, FlyKnit and green rubber shoes. "Nike Considered" is a concept in which shoe materials originate primarily within two hundred miles of the factory. This line considers the environmental impact the transportation of raw materials has. The materials are chosen from among the better options such as: polyester, hemp and only vegetable tanned leather from a factory that recycles its wastewater. It is part of the objective of decreasing waste and toxic chemicals, which is something Nike is partnering to do. (Lesser, 2012)

Multiple partnerships with NGOs and other industry operators have helped Nike to green its operations (Dauvergne & Lister, 2013:145), or at least image. One significant green move, collaboration with companies like Puma, Adidas and others, has set Nike to aim for zero discharge of hazardous chemicals in production by 2020 (Lesser, 2012). The process is called "Companies to Reach Zero Discharge". Toxic chemicals are a significant environmental burden caused by all manufacturing and reducing it to zero would be very eco-friendly.

Partnerships are also making Nike greener in a way that is familiar from Timberland's case (See page 21). Nike uses the "Footwear Sustainability Index (FSI)" to measure its footwear's environmental impacts (Nike Inc, 2014b). The index evaluates the product in four areas; materials, waste, solvents and energy. The index is a result of collaboration with the Sustainable Apparel Coalition (Lesser, 2012). The Sustainable

Apparel Coalition is a trade organisation with multiple stakeholders consisting of world leaders in clothing and apparel industry and non-profit organisations. Nike, among its competitors such as: Adidas, Brooks, New Balance and Puma, is a member of that organisation. The organisation's objective is to address the social and environmental challenges of the apparel and footwear industry, which are both an inevitable thing to deal with and a business opportunity. (Sustainable Apparel Coalition, 2015)

Thanks to Nike's environmental innovations towards reducing waste with product designs, in 2013 it had 71 percent average waste efficiency, which is 13 percent less waste generated than in 2008. The Footwear Sustainability Index was applied to 98 percent of all new Nike Brand footwear products. The index scale ranges from Bronze to Gold medal ratings, gold being the most eco-friendly. 68 percent of its footwear achieved a silver or gold rating. For a bronze metal, footwear has to be excellent in one or more of the index areas (materials, waste, solvents and energy). Additional points are given for material choices or production processes that clearly demonstrate improved energy, waste, water and chemistry efficiency. (Nike Inc, 2014b) The earlier mentioned FlyKnit technology, with 80 percent less waste generated, means 66.000 KG (weight of 12 adult African elephants) in material savings in 2012 and 2013 (Nike Inc, 2013: 11). When it comes to carbon dioxide (CO₂) emissions, Nike's FlyKnit shoe created 21 percent less emissions. (Nike Inc, 2013: 25)

3.3.3 OAT Shoes and LYF Shoes

How do the multinational footwear brands differ from the other smaller operators? As the cases of Nike and Timberland show, big footwear companies have managed to reduce their environmental impacts. Maybe they could be even greener?

A company called OAT has manufactured 100 percent biodegradable footwear since 2011. Not only can its shoes be buried in the ground after their useful life, but they turn into blooming flowers. OAT shoes are made of cork, hemp, biodegradable plastic, flax, and organic cotton, which make them non-toxic – something that many footwear manufacturers fail to offer (OAT Shoes, 2015). Normal footwear, like the ones of Nike and Timberland, can take up to 1.000 years to decompose in a landfill due to the chemically derived materials (Leigh, 2014). According to a recycling expert, rubber

boot sole can decompose in 50-80, a nylon fabric in 30-40 and a leather shoe in 25-40 years (LeBlanc, 2015). For an OAT shoe, once buried it takes them only a couple of months to degrade and for the plastic parts approximately 6 months (OAT Shoes, 2015). Production of OAT shoes has 33 percent less negative environmental impact and 25 percent less CO₂ emission compared with similar canvas shoes made of cotton (Leigh, 2014). OAT's ideology includes also local production. The footwear is made in Europe and sold in Europe. (OAT Shoes, 2015)

Like OAT Shoes, LYF (Love Your Footprint) Shoes in the USA have made eco-friendlier shoes for local consumers. They address the fact that outsourced, overseas production is unsustainable and want to make their shoes in front of the customer at the shop. LYF Shoes are made of 100 percent recyclable materials and do not use PVC or toxic adhesives that are needed in gluing together the upper part and sole of an average shoe. The shoes are assembled together without glue, which both makes it possible to recycle and manufacture them without toxics. LYF has conducted a CO₂ emission calculation with the LCA tool. Compared to a typical comfort shoe made in China from the local materials, The LYF shoe's carbon footprint is 49 percent smaller. (LYF Shoes, 2015)

3.4 Do these eco-efforts make them eco-friendly companies?

If all the above-mentioned eco-friendlier methods of making footwear would be combined, could truly eco-friendly footwear be invented? If Nike's FlyKnit technology would be combined with OAT's fast biodegradable materials and recyclable Timberland soles assembled together locally with LYF Shoe's technique, a very eco-friendly shoe seems possible. But one can still argue that "There is no such thing as a green product. The only true green product is the one you don't use." (Iannuzzi, 2012: xiii) All the methods introduced in this research use natural resources and the manufacturing processes have negative impacts on the environment.

Organic cotton, as an example of green footwear material, needs warm temperatures and lot of water to grow. That is why it is produced in tropical or subtropical climates: such as China, India, and Pakistan, in areas that are already short on water. Without rainwater in those areas, to cultivate cotton, the water is taken from ground water

supplies. Ground water, that feeds rivers and streams on which people are dependent on for livelihood, if not used moderately, is a non-renewable resource. Once the ground water is used up, it will not return. This scarce resource is used to cultivate 53 percent of the world's cotton fields. (Pierre-Louis, 2012: 26-27)

Apart from footwear materials, also manufacturing has negative impacts on the environment. Timberland's and Nike's product manufacturing create CO2 emissions and use non-renewable energy resources (Nike Inc, 2013: 31-34; Timberland, 2015f). Not even OAT Shoes or LYF Shoes report that they would be only using renewable energy sources in manufacturing. Even the eco-friendlier products on a big scale burden the environment as, no matter of the material, the soles and garments have to be made and assembled and the process consumes energy and creates emissions. Producing and consuming less is eco-friendly, however only changing to eco-friendlier methods is not alone enough. In the book *Green Washed* Pierre-Louis have come to same conclusion as the author of this work: "fashion – green or otherwise – is unsustainable because it is an industry that depends on people constantly buying more of what it has to offer, regardless of actual need." (Pierre-Louis, 2012:29) The core drive for Timberland, Nike, OAT Shoes and LYF Shoes, or any company in the world is to sell and grow.

Current footwear manufacturing and consumption are not sustainable and companies that provoke the consumption are not 100 percent eco-friendly. The companies studied in this work, Timberland, Nike, OAT Shoes and LYF Shoes, are clearly thinking about the impacts their actions have on the environment. But Timberland and Nike are not absolutely eco-friendly: they are just eco-friendlier and less harmful to the environment than before. OAT Shoes and LYF Shoes are eco-friendly in the light of the facts that are available. Answer to the question whether eco-friendly footwear companies exist is yes. With the green business tools introduced and methods that some footwear companies are using, eco-friendly footwear production is possible. The consumers and companies just should re-evaluate the concepts of fashion and consumption.

4 Is eco-friendliness profitable?

What is the motivation for companies to go eco-friendly? Were the scandals about unethical labour practices the spark for Nike? Without improved publicity Nike could be out of business. Was the ultimate trigger financial or environmental? Who do the eco-products serve – the environment or companies?

Since 2005, there has been an expanding trend of companies adapting a style of producing more with less. After incorporating environmentally friendly practices companies are saving in production costs even when producing more. (Dauvergne & Lister, 2013: 56). Sustainable practices were considered responsibility and something mandatory to do when companies first started to adapt the idea. Now it is wise move in monetary terms. Eco-business for big-brand companies is “to lower costs and improve margins, to enhance product quality, to increase sales, and to grow markets.” (Dauvergne & Lister, 2013: 80). Eco-business helps to improve profits and revenue growth and inspire innovation. (Dauvergne & Lister, 2013: 80).

There is a grand demand for eco-friendly products (See page 14) and it is profitable to satisfy this market demand. All the companies studied in this research, and provably many others as well (See pages 15, 18, 25), have realised the need for sustainability and seized the potential of eco-friendly market. Smart footwear companies realise, that without the natural resources their operations depend on, they cannot continue in business. So actually the motivation to be eco-friendly is rather selfish and profit driven, not only about being just to the environment and doing the right thing. The ways Timberland and Nike have benefitted from eco-business are introduced next.

4.1 Does Timberland profit from eco-business?

Timberland has been committed to sustainability for over 40 years (Whitney, 2015). It is only natural for an outdoor apparel company to help preserve the nature where Timberland’s products are used. Timberland introduced their Green Index® in 2007, since then the revenues and profits have been increasing (Whitney, 2015). In 2014, Timberland brand’s sales grew with 13 percent globally (VF Corp, 2014: 8). The Earthkeepers® collection (See page 22) introduced in 2007, had grown 35 percent by

2011 (VF Corp, 2011: 33). The line is now Timberland's "fastest growing and largest product line" (Timberland, 2015d). Emily Alati from Timberland says, that consumers do not have to choose anymore between product performance and green product. Use of recycled materials benefit the environment, consumer and the company's bottom line. (Timberland, 2015d)

4.2 Does Nike profit from eco-business?

Nike recognise that "sustainability is a route to future profitability" (Nike Inc, 2009). Nike's sustainability efforts (See page 23-25) are not at least slowing their growth, but even improving their performance. In fiscal year 2014, the company achieved record revenues and earnings per share (EPS), revenues by 10 percent and EPS by 11 percent. Nike explains the results with the value brought by the product types and technologies like FlyKnit (See page 23). (Nike Inc, 2014: 64). Nike's footwear revenues grew with 12 percent, which is more than those of apparel and equipment (Nike Inc, 2014: 67). The footwear unit sale growth was 7 percent, even when the average selling price per pair grew 5 percent (Nike Inc, 2014: 67). According to Nike the growth in footwear sales performance is due to consumers' increased demand for shoes like FlyKnit (Nike Inc, 2014: 67), which are among the most expensive shoes they offer (Nike Inc, 2015). Nike has managed to create eco-conscious shoe that is of the higher price range and that sells well. This all suggest that eco-friendlier product offering and attention to waste reducing innovation is profitable.

The company found also a way to utilize waste as a resource and this way save money in materials costs. Nike's Trash Talk shoe costs less and performs well while made from material that otherwise would end up as waste. The idea was profitable and the shoe sold out within hours when it was introduced in 2008. (Dauvergne & Lister, 2013: 74) In 2010, Nike's FIFA World Cup soccer shirts were also made from trash. The shirts consisted of 13 million plastic bottles collected from landfills and less of expensive virgin material was needed. (Dauvergne & Lister, 2013: 77)

4.3 Are consumers aware of the eco-efforts?

It is obvious that companies cannot make profit with eco-friendly products if there is no eco-conscious market for them. A consumer survey (See appendices 1-3) was conducted to gather primary data on whether consumers are eco-friendly or aware of the efforts the footwear companies introduced in this research have done. The structured online questionnaire consists of 17 multiple-choice questions that aim to study consumers' eco-friendliness and their awareness of recycling and footwear companies' eco-efforts. One of this work's research questions is to study whether eco-friendly companies exist. The questionnaire answers to the question whether eco-friendly consumers exist and if the consumers think eco-friendly companies exist. The results reveal how well the eco-efforts of Timberland, Nike, OAT Shoes and LYF Shoes have reached the consumers. For the eco-friendlier products to be profitable the consumers should be aware of them and this survey hints that the consumers are not yet that informed.

50 percent of the survey respondents think about the environment in their everyday actions including purchases, which strengthens the assumption stated earlier (See pages 13-14) that eco-friendly products are welcome to some consumers. The survey tried to find out whether the respondents see themselves as eco-friendly. The majority, 61,5 percent, of the respondents answered that "sometimes". It seems to be linked with the answer of another question on whether they buy environmentally friendly products, as also 61,5 percent claim to do it "sometimes". The answer "sometimes" explains well why footwear companies can exist also without eco-friendly practices and products. For this sample of respondents, environmental factors seem not mean a lot. Like not all footwear corporations, they are also not extremely eco-friendly.

When it comes to recycling, 50 percent of the respondents said that they recycle and 38,5 percent said to do it "sometimes". But when asked if they know how to recycle shoes, 65,4 percent had no knowledge on how. Based on this research's sample answers, the footwear companies' efforts do not make a difference for many consumers. If consumers do not know that they can recycle their shoes by returning them to Timberland, Nike or LYF Shoes store, making them out of materials that can be recycled is pointless. The same applies to OAT Shoes that could be planted in the ground but instead, in the lack of knowledge, might be thrown to landfill like other shoes. Concerning about the survey results was also that over half of the respondents

estimate that sneaker decomposes in a landfill in less than fifteen years. In reality footwear decomposes in 25-80 years (LeBlanc, 2015).

Nike's eco-friendly efforts are profitable when studying the company reports and results. However, the great majority (69,2 percent) of the consumer group who answered the survey did not know FlyKnit shoe model being eco-friendlier than AirMax shoe. According to the survey results, 84,6 percent of respondents do not think Nike is an eco-friendly footwear manufacturer. They perceive Timberland to be eco-friendlier than Nike, with 23,1 percent seeing Timberland as eco-friendly footwear manufacturer when in Nike's case it is only 7,7 percent. Timberland's sustainability efforts seem to be working as consumers have better image of it than they do have of Nike in comparison. However, Timberland's Green Index® labels were not recognised by the survey respondents. Only one respondent had seen the labels before and 76,9 percent never.

Based on the survey, Nike and Timberland have not yet reached all the consumers with their eco-innovations. Nor are all of them aware that eco-friendly footwear companies such as OAT Shoes and LYF Shoes can exist. In case of the studied consumers, the companies' efforts are not profitable in a sense that eco-conscious consumers would purchase their products based on the green value that FlyKnit (See page 23) and Green Index® (See page 21) offer. The companies were not perceived very eco-friendly either. 50 percent of the respondents know that eco-friendly companies exist and 42,3 percent experience that they do not exist. The 42,3 percent still believe that it could be possible. Overall the findings of the survey suggest that more effort put into eco-business is necessary in order it to be profitable.

5 Conclusion

The author, together with the survey respondents, did not have much faith towards footwear companies. In the beginning of the research the author's assumption was that eco-friendly footwear companies do not exist. A little faith has been restored on the footwear manufacturers, as the research proves that companies are trying to come up with better solutions all the time and great progress has been made.

Do eco-friendly footwear companies exist? Yes they do, but they are not absolutely environmentally friendly. The footwear materials can be eco-friendly but there are non-eco-friendly factors in the production that must be still addressed. Even when the materials and assembly technics are eco-friendly, the manufacturing burdens the environment, and in the lack of knowledge the consumers do not utilize the full potential of footwear innovations of using eco-friendlier materials. Unsustainable with the footwear market is also the consumption of it as fashion in ever increasing amounts. So the consumers need a change. Can the footwear companies suddenly change their practices completely? Managerial and practical tools have been introduced in this research and it sheds a light to the fact that footwear companies can be eco-friendlier. This requires change – in attitudes and practices, and commitment from top to the bottom of a company. The examples of OAT Shoes and LYF Shoes show that the big companies such as Timberland and Nike could be even greener.

Is eco-friendliness profitable? Yes it is. The research shows that eco-business decreases production costs due to improved water- and energy-efficiency, waste management and material choices. Eco-business also enhances the brand's image. For Timberland and Nike, among many others, it has brought revenue growth. Though, based on the consumer survey results, they should increase and promote more their eco-efforts to reach more consumers and raise awareness on eco-friendlier footwear. The respondents were not very eco-conscious nor did they have knowledge about how to recycle their footwear. The results of the questionnaire revealed that the respondents were not aware of Timberland's and Nike's eco-efforts, and great majority did not consider them eco-friendly footwear companies.

5.1 Recommendations for further studies

The author wishes to see that further studies would answer the questions that this research proposed and left unanswered: How to start saving natural resources and consume less when the current system is so incompatible with that idea? Can we even expect that consumers are ready to change their consuming habits and consider more the impact that footwear has on the environment? Or is it the companies' responsibility to change their attitude from creating easily disposable "fashion" to produce and sell less?

There is a need for academic literature on more profound analysis of footwear companies' eco-friendly practices. The future studies could take a hard look on the companies and bring to light how much actually they are helping the environment with their innovations. Does Nike's and Timberland's reduced emissions help at all the planet or should they just totally stop manufacturing? Is that the only true eco-friendly solution?

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Research methods of the consumer survey

A consumer survey was conducted to study whether the consumers are aware of the efforts that the footwear companies introduced in the thesis have done. The questionnaire's aim was to study consumers' eco-friendliness and their awareness of recycling and footwear companies' eco-efforts. One of the research questions in the thesis is to study whether eco-friendly companies exist. The questionnaire answers to the question whether eco-friendly consumers exist. The results also reveal how well the eco-efforts of Timberland, Nike, OAT Shoes and LYF Shoes have and could reach the consumers. For the eco-friendlier products to be profitable the consumers should be aware of them.

The survey was conducted to gather primary data for the research and was in a form of structured quantitative questionnaire that consisted of 17 multiple-choice questions. The questionnaire was self-administered and internet-mediated. The questionnaire was realised with Google Forms tool and distributed to the respondents through Facebook, email and LinkedIn. The data was collected in 2nd – 13th of April 2015.

The questionnaire consisted of statements that respondents were asked to answer according to their perceptions and behaviour as consumer. The categories of questions were: recycling habits, footwear consumption, eco-friendly attitude, knowledge of eco-concepts, knowledge on footwear industries eco-actions and perception of footwear companies eco-friendliness.

The sample size of the survey was 26 respondents, whom majority of were aged 18-28. The questionnaire was sent to Finnish and Spanish consumers.

Questionnaire



Consumer survey

Please, spare a few minutes of your valuable time to answer this simple questionnaire.

The questionnaire is part of a BBA thesis research. Purpose of the questionnaire is to study footwear industry.

What is your age?

- 17
- 18 - 28
- 29 - 39
- 40 - 50
- 51 - 61
- 62 - 72
- 72 -

Please, choose the best option to describe yourself as a consumer.

	Yes	Sometimes	No
Are you environmentally friendly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you recycle?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you buy environmentally friendly products?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think about the environment in your everyday actions (transportation, energy and water use, shopping etc.)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which one of the following terms describes most accurately the concept of 'environmentally friendly'?

Sustainable
 Green
 Organic
 Energy-efficient
 All the terms mean the same thing with the term 'environmentally friendly'
 None of the above

Do you own or have you owned environmentally friendly shoes?

- Yes
 Yes, all my shoes are environmentally friendly
 Never
 I don't know what environmentally friendly shoes mean

Do you know how to recycle your shoes after they are worn out?

- Yes
 No

If you answered yes to the previous question, please specify which of the following you do:

- I give them to charity
 I put them to organic waste bin
 I put them to mixed waste bin
 I put them to energy waste bin
 I return them to the store
 I don't do any of the above mentioned
 Other:

How many years you estimate that it takes for a sport sneaker to biodegrade in a landfill?

- 0 – 3 years
 4 – 7 years
 8 –11 years
 12 – 15 years
 More than 15 years

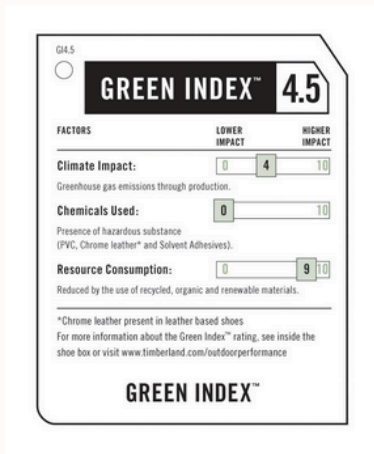
How do you feel about a casual sneaker shoe, that is made of 100% biodegradable materials and grows into flowers when you plant it into soil?

You may choose multiple options

- Sounds impossible
 Great idea
 I don't think a shoe like that is more environmentally friendly than a normal one
 I would buy shoes like that

Have you seen the "Green Index" labels shown below before or heard about them?

- Yes
- No
- Looks/sounds familiar but I am not sure



Do you think Nike's Flyknit shoes are environmentally friendlier choice than their Air Max shoe?

✓
No
Yes
I don't know

20€ more from a hundred euro footwear (120€) if it was produced more environmentally

Would you pay 20€ more from a hundred euro footwear (120€) if it was produced more environmentally friendly?

✓
Yes
No

Do you think Nike is an environmentally friendly footwear manufacturer?

Do you think Nike is an environmentally friendly footwear manufacturer?

- Yes
- No

Do you think Timberland is an environmentally friendly footwear manufacturer?

- Yes
- No

Do you think environmentally friendly footwear companies exist?

✓
Yes, I know they exist
No, environmentally friendly footwear companies cannot exist
They can exist but there isn't any



Consumer survey

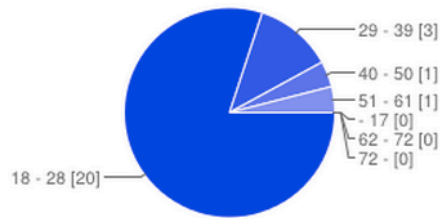
Your response has been recorded. Thank you very much for answering the questions. If you wish to hear the result and/or have any questions regarding the questionnaire, please do not hesitate to contact the researcher via email: heidi.hietala@metropolia.fi

This form was created using Google Forms.
[Create your own](#)



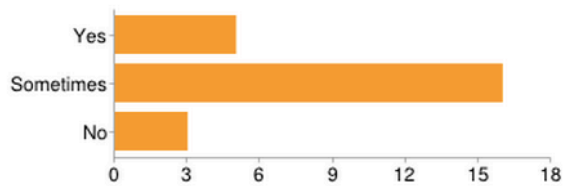
Survey results

What is your age?



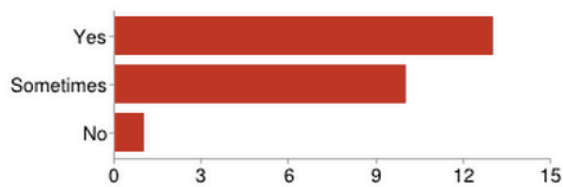
- 17	0	0%
18 - 28	20	76.9%
29 - 39	3	11.5%
40 - 50	1	3.8%
51 - 61	1	3.8%
62 - 72	0	0%
72 -	0	0%

Are you environmentally friendly? [Please, choose the best option to describe yourself as a consumer.]



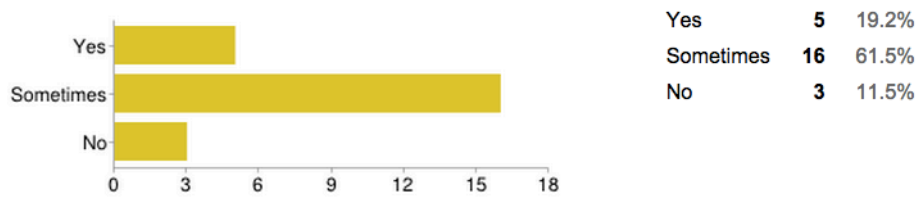
Yes	5	19.2%
Sometimes	16	61.5%
No	3	11.5%

Do you recycle? [Please, choose the best option to describe yourself as a consumer.]

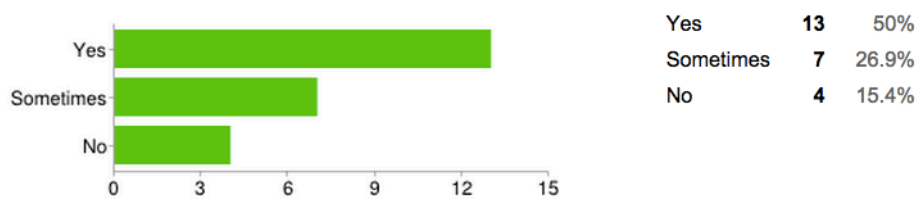


Yes	13	50%
Sometimes	10	38.5%
No	1	3.8%

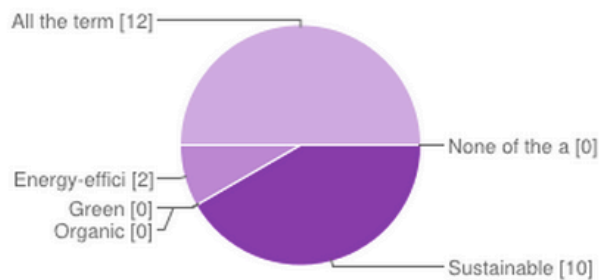
Do you buy environmentally friendly products? [Please, choose the best option to describe yourself as a consumer.]



Do you think about the environment in your everyday actions (transportation, energy and water use, shopping etc.)? [Please, choose the best option to describe yourself as a consumer.]

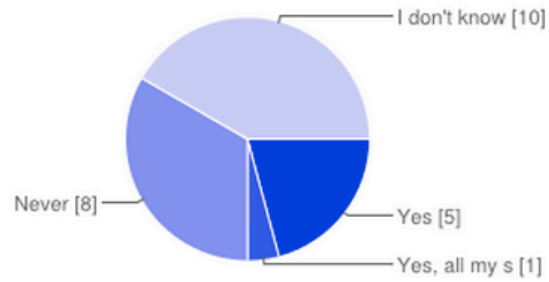


Which one of the following terms describes most accurately the concept of 'environmentally friendly'?



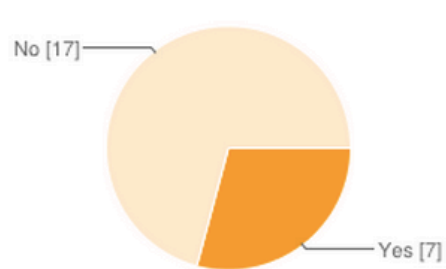
Sustainable	10	38.5%
Green	0	0%
Organic	0	0%
Energy-efficient	2	7.7%
All the terms mean the same thing with the term 'environmentally friendly'	12	46.2%
None of the above	0	0%

Do you own or have you owned environmentally friendly shoes?



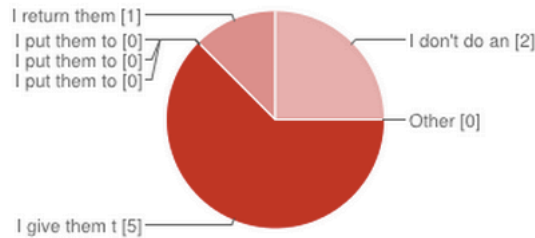
Yes	5	19.2%
Yes, all my shoes are environmentally friendly	1	3.8%
Never	8	30.8%
I don't know what environmentally friendly shoes mean	10	38.5%

Do you know how to recycle your shoes after they are worn out?



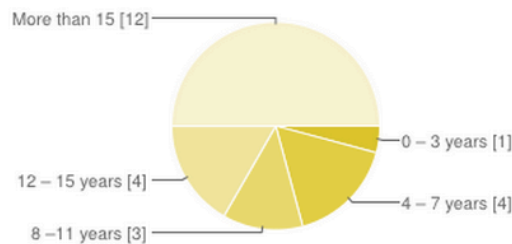
Yes	7	26.9%
No	17	65.4%

If you answered yes to the previous question, please specify which of the following you do:



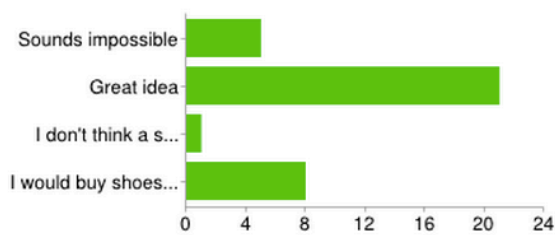
I give them to charity	5	19.2%
I put them to organic waste bin	0	0%
I put them to mixed waste bin	0	0%
I put them to energy waste bin	0	0%
I return them to the store	1	3.8%
I don't do any of the above mentioned	2	7.7%
Other	0	0%

How many years you estimate that it takes for a sport sneaker to biodegrade in a landfill?



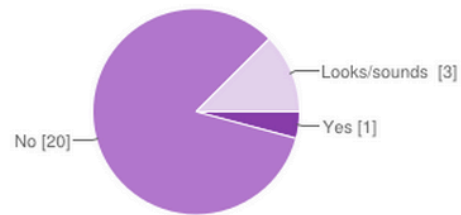
0 – 3 years	1	3.8%
4 – 7 years	4	15.4%
8 – 11 years	3	11.5%
12 – 15 years	4	15.4%
More than 15 years	12	46.2%

How do you feel about a casual sneaker shoe, that is made of 100% biodegradable materials and grows into flowers when you plant it into soil?



Sounds impossible	5	19.2%
Great idea	21	80.8%
I don't think a shoe like that is more environmentally friendly than a normal one	1	3.8%
I would buy shoes like that	8	30.8%

Have you seen the "Green Index" labels shown below before or heard about them?

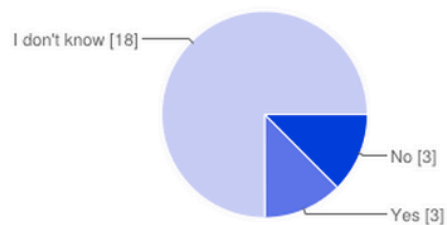


Yes	1	3.8%
No	20	76.9%
Looks/sounds familiar but I am not sure	3	11.5%

[Image]

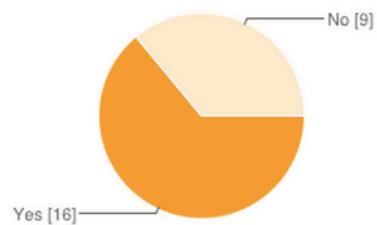
[Image]

Do you think Nike's Flyknit shoes are environmentally friendlier choice than their Air Max shoe?



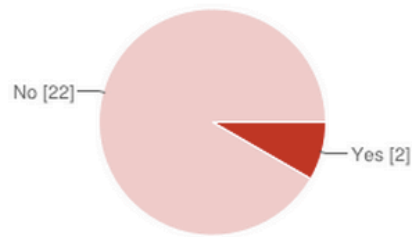
No	3	11.5%
Yes	3	11.5%
I don't know	18	69.2%

Would you pay 20€ more from a hundred euro footwear (120€) if it was produced more environmentally friendly?



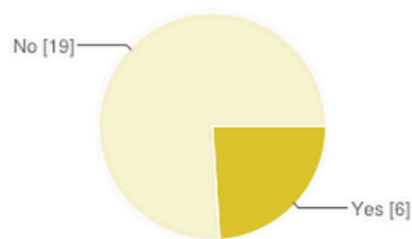
Yes	16	61.5%
No	9	34.6%

Do you think Nike is an environmentally friendly footwear manufacturer?



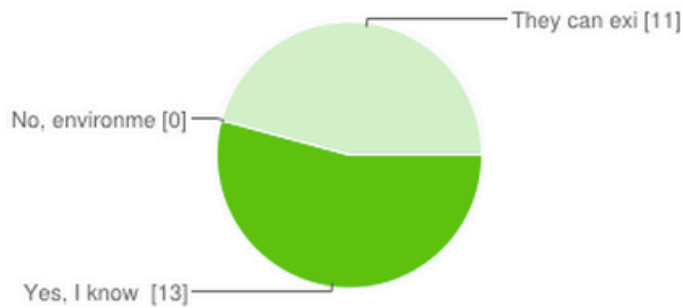
Yes	2	7.7%
No	22	84.6%

Do you think Timberland is an environmentally friendly footwear manufacturer?



Yes	6	23.1%
No	19	73.1%

Do you think environmentally friendly footwear companies exist?



Yes, I know they exist	13	50%
No, environmentally friendly footwear companies cannot exist	0	0%
They can exist but there isn't any	11	42.3%