ECOPRENEURSHIP IN PORTUGAL:

A CONTEXT & MARKET ANALYSIS

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2. ABSTRACT

This thesis focuses on the role of ecopreneurs and green businesses in the economy and in the environment as drivers of environmental sustainability and addresses ecopreneurs’ incentives to pursue a more environmentally sustainable world.

It also studies both the level of environmental sustainability in Portugal and the opportunities for ecopreneurship and green start-ups to emerge in the Portuguese economy and help tackle Portugal’s environmental issues.

Keywords: Ecopreneurs; Green Business; Environmental Sustainability.

3. INTRODUCTION

Nowadays environmental degradation is an issue that seems to be on everyone’s minds. Policy makers and country leaders have been paying special attention to it for a while now, as the recently signed Paris Agreement shows, companies have slowly been embracing environmental sustainability and consumers have been taking this issue into account and changing their consumption habits to include eco-friendly products and services.

This thesis will focus on environmentally sustainable companies, referred to as green businesses, and on a specific set of entrepreneurs, the ecopreneurs, whose goal is to create these companies. It will look at entrepreneurship and ecopreneurship in Portugal, the environmental degradation in the country, the level of environmental sustainability in the Portuguese economy and the incentives to entrepreneurs and ecopreneurs provided by the Portuguese Government and other institutions. This will serve as a basis to establish the context in which Portuguese ecopreneurs currently find themselves.
It will then study the green industry through a market analysis in order to understand the opportunities to ecopreneurs present in the market as well as establish possible weaknesses and threats they may encounter in this industry.

The goal of this thesis is to study whether the advantages of creating a green business (start-up) in the Portuguese economy outweigh the disadvantages. In other words, the goal is to see whether the Portuguese economy is welcoming (politically, economically and environmentally) to ecopreneurs and to the emergence of green businesses.

4. LITERATURE REVIEW

4.1. Definitions

Throughout the years many authors have tried to define the term entrepreneur. Gartner (1985) considers the term entrepreneur to be related to an individual who starts a new business where there was not one before. Peterson (1985) defines an entrepreneur as a person capable of identifying and exploiting an opportunity. More recently, Schaper (2002) defines an entrepreneur as an individual who “conceives new business opportunities and who take on the risks required to convert those ideas into reality”. He goes as far as saying that “entrepreneurs often play an important role as engines of change (…)” in the economy “(…) because they are responsible for introducing innovation, adaptation and new ideas”.

The most accurate definition of entrepreneur, in my opinion, was provided by Jenny Ta, CEO and founder of Sqeeqee.com, an online social commerce platform. According to her, an entrepreneur is a confident, self-motivated and tenacious person who understands his/her own limitations. An entrepreneur disregards the status-quo and has a “healthy disrespect for established rules” which means he/she will often do things that most people may not have the courage to do. And finally, what I believe to be the most essential trait of an entrepreneur is that, as Jenny Ta puts
it, he/she is “willing to fail and start over again, taking the lessons (…) learned to create something new and improved”.

It is clear that the definition of entrepreneur has been changing throughout the years as entrepreneurship becomes more and more relevant and evident in the world of business.

What this last definition, unlike the former definitions, refrains from stating is that the term entrepreneur is linked to the creation of a new business venture. Although the founders of new ventures can be considered entrepreneurs, literature on the subject suggests that the term is a lot broader than that. The common entrepreneurial trait among most definitions is the creation of something new and improved. This can be interpreted as the creation of a new venture but also as the creation of innovation within a currently operating business. This can come in the form of new and innovative departments, processes, products, services, technologies, etc. This type of entrepreneur is often denominated “intrapreneur” as he/she is working from within a company.

Antoncic and Hisrich (2003) define intrapreneurship as entrepreneurship within an existing company. They say that it involves a behavior related to “departures from the customary”.

Despite the lack of consensus among authors regarding the definition of entrepreneurship, most of them seem to be in agreement when it comes to the definition of intrapreneurship and its existence within corporations.

One other derivation of entrepreneurship which is “green entrepreneurship” or “ecopreneurship”, has been drawing a lot of attention lately due to growing concerns regarding de environment. However, the concept of ecopreneurship is not necessarily a new concept.

From as early as the 1970’s there has been a discussion regarding the “ecology movement” and how this could lead to profitable new markets.
The term “ecopreneur” was introduced in the 1990’s with authors such as Bennett (1991). According to the author: “An ecopreneur can be anyone who wants to be successful at earning a living by solving environmental problems”.

Isaak (2002) defines ecopreneur as a person who sets out to change a sector of the economy by making it more environmentally sustainable. This is achieved by starting a business in that sector that entails a green design, green processes and a life-long commitment to environmental sustainability.

So, to summarize, as Wani and Dhami (2016) put it, ecopreneurs differ from conventional entrepreneurs in the sense that they are able to build a bridge between environmental progress and market success.

It is clear that ecopreneurs are responsible for the creation of green companies whose goal is not only to generate profit, as every business strives to do, but also to achieve environmental progress. But what exactly does this mean? How is it achieved? And most importantly, what makes a company green?

There are many definitions of green business in play nowadays. Croston (2009) provides one of these definitions. According to the author, a green business is one that has “more sustainable business practices than its competitors, benefiting natural systems and helping people live well today and tomorrow while making money and contributing to the economy”. As this definition shows, Croston (2009) considers the line that divides a green business and a sustainable business to be blurred. According to him, a green business is one that is not only environmentally sustainable but also economically and socially sustainable. This is very much in line with the generally accepted definition of sustainable business. According to most authors, a sustainable business is one that can thrive in the long term and in order to do so must have the three pillars of sustainability (environmental, social and economic) well established within the company and its operations.
As far as the green business goes, other sources such as the Sustainable Green Certified Business platform, define it as a business “taking action to reduce its environmental impact on its immediate area of concern”, apparently excluding the economic and social facets of sustainable development from their definition.

Čekanavičius, Bazytė and Dičmonaitė (2014) offer a definition of green business that seems to fall somewhere in between the previously mentioned definitions. According to the authors, “a green business is an organization that is committed to the principles of environmental sustainability in its operations, strives to use renewable resources, and tries to minimize the environmental impact of its activity.” The authors consider a green business to be a stepping stone towards a sustainable society by providing it with one of its three pillars which is environmental sustainability. But what does environmental sustainability entail? What are the principles that a business has to adopt in order to be considered environmentally sustainable?

The Business Dictionary defines environmental sustainability as “the maintenance of the factors and practices that contribute to the quality of the environment on a long-term basis”.

Morelli (2011) has compiled a list of principles of this type of sustainability, some of which are: preservation of biodiversity; reusing and recycling; regenerative capacity (i.e. making sure that the nonrenewable resources are not depleting at a higher rate than the renewable substitutes are being created); and constraints on waste generation.

Even though the definition provided by Čekanavičius, Bazytė and Dičmonaitė (2014) is now clearer, it still seems somewhat broad. To truly understand the activities of a green business, thus differentiating it from other businesses, it is essential to define the green economy, and learn what sectors/industries are considered to be included in it.

The United States’ Bureau of Labor Statistics characterizes the green economy into five categories: Renewable energies; Energy efficiency; Pollution reduction and removal, greenhouse
gas reduction, recycling and reuse; Natural resource conservation; and Environmental compliance, education and training and public awareness.

The Bureau further differentiates these categories by output generated as follows:

Table 1 – Output Considered to be Green Output by the BLS

<table>
<thead>
<tr>
<th>Renewable Energy</th>
<th>Energy Efficiency</th>
<th>Pollution Reduction and Removal, etc.</th>
<th>Natural Resource Conservation</th>
<th>Environmental Compliance, Education, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity generated by:</td>
<td>Products and services that improve energy efficiency:</td>
<td>Products or services that reduce GHG emissions, reduce the creation of waste</td>
<td>Products and services that preserve natural resources</td>
<td>Environmental Regulations &amp; Enforcement</td>
</tr>
<tr>
<td>- Wind</td>
<td>Ex: Appliances</td>
<td>Ex: Nuclear Energy</td>
<td>Ex: Organic Agriculture</td>
<td>Energy &amp; Environmental Awareness Programs</td>
</tr>
<tr>
<td>- Biomass</td>
<td>- Equipment</td>
<td></td>
<td></td>
<td>Training &amp; Education for Green Work Activities</td>
</tr>
<tr>
<td>- Geothermal</td>
<td>- Buildings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Solar</td>
<td>- Vehicles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Ocean</td>
<td>- Industrial Processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Hydropower</td>
<td>Sustainable Construction &amp; Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Landfill Gas</td>
<td>Mass Transit (Large-Scale Public Transportation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Solid Waste</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Biofuel/Biodiesel</td>
<td></td>
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</tr>
</tbody>
</table>

A green business should, therefore, operate within one or more of the 5 areas of the green economy.

Another concept that is used a lot is “eco-friendly”. Some authors do not make any distinction between “eco-friendly” businesses and green businesses, however, most of those who do, are in consensus when they consider an “eco-friendly” business to be one that makes an attempt to reduce
the impact of its activities on the environment. This definition seems in line with some of the
previously mentioned authors’ narrow views of green business.

It becomes apparent that these are concepts that are still very much up to interpretation since
literature on them varies so much from author to author.

4.2. Environmental and Political Context

The need for ecopreneurship, much like its definition, is not a recent one. For centuries, the
rate and extent of the environmental degradation have been increasing at a fast pace.

According to Milman (2015), humanity has been damaging its “own life support systems at a
rate unseen in the past 10,000 years”. As can be read on the article, this overall environmental
degradation is a product of the degradation of land and freshwater systems, the emission of
greenhouse gases and the release of agricultural chemicals into the environment. These, among
other factors contribute to climate change, the loss of biosphere integrity and the pollution of
oceans. Due to this, there has been an increasing concern about the environment. There has also
been an increasing realization of the role played by businesses in the degradation of the
environment. Ultimately, the more environmental problems we face the more we need solutions
for these problems. This means that more business opportunities arise as these new problems give
way for someone to create environmentally sustainable solutions to solve them.

For all the above mentioned reasons, ecopreneurs are encouraged to step in and try to help the
economy make a transition towards a more environmentally sustainable system.

Other than environmental reasons, ecopreneurs can be encouraged to perform their role due to
political reasons such as Government incentives, although literature differs when it comes to the
need for such incentives.

Isaak (2002) defends that this process of change towards sustainability would be impossible
without Government incentives and adds that certain public policy strategies such as: tax incentives
to promote the creation of green jobs and to punish resource use, the use of ecopreneurship as a strategy for boosting civic competence and social capital and the start of a public campaign to de-legitimatize non-sustainable business results could facilitate the work of ecopreneurs.

However, Farinelli, Bottini, Akkoyunlu and Aerni (2011) defend that although Government incentives would be beneficial to the change towards sustainability, they are not indispensable. According to the authors, there is evidence that green innovation existed throughout the 20th century despite the absence of Government intervention.

Although it seems to be possible to achieve some level of sustainability without government aid, it is also clear that this would further encourage companies to go green as well as facilitate the creation of new green businesses.

4.3. The Role of Ecopreneurs

Schaper (2002) states that ecopreneurs play a critical role in the adoption of green business practices by the rest of the business community through the example they portrait to the other firms. The author states that by demonstrating not only the environmental but also the economic benefits of being green, ecopreneurs act as a “pull factor” that encourages other firms in the market to go green. Wani and Dhami (2016) say that by showcasing the economic advantages of energy and resource maximization, waste reduction and respect of the ecosystem, ecopreneurs can encourage other companies to go green.

In fact, according to Farinelli, Bottini, Akkoyunlu and Aerni (2011), green enterprises, created by ecopreneurs, are being increasingly successful in proving that sustainability, despite being a cost, is also an opportunity to increase revenues and customer loyalty while protecting the environment.
5. RESEARCH AND DISCUSSION

5.1. Research Question and Methodology:

Entrepreneurship is a much discussed concept nowadays. Although many consider the term to have a narrow meaning, some consider the term to be extremely broad. This thesis will be studying a particular set of entrepreneurs, referred to as ecopreneurs. In order to define ecopreneur, it becomes necessary to have a clear definition of entrepreneur. I will be assuming a broader definition for entrepreneur, one that originates from two different definitions found in previously published literature on the subject. Specifically, I will be assuming that an entrepreneur is an individual who disregards the status-quo and has a healthy disrespect for rules. As such, an entrepreneur is responsible for introducing innovation, adaptation and new ideas and takes the risks required to convert those ideas into a reality.

Taking this definition into account, an ecopreneur is an entrepreneur who, by creating a green business, sets out to change a sector of the economy by making it more environmentally sustainable. It is someone who is able to build a bridge between market success and environmental progress.

In order to fully comprehend this definition, it is also necessary to define green business.

The definition of green business I will be assuming throughout this thesis is derived from the definition provided by Čekanavičius, Bazytė and Dičmonaitė (2014) and uses the United States’ Bureau of Labor Statistics’ framework for dividing the green economy. As such, a green business is an organization that is committed to the principles of environmental sustainability in its operations and tries to minimize the environmental impact of its activity. It operates in one or more of the following three areas: renewable energies; energy efficiency; and pollution reduction and removal, greenhouse gas reduction, recycling and reuse.
My definition includes only four of the five areas of the green economy considered by the Bureau of Labor Statistics. The area eliminated from my definition was the environmental compliance education, training and public awareness because I believe companies in this area do not necessarily fit into the definition I assumed for green business. Although they are most likely committed to the principles of environmental sustainability, since they are education-based companies and not production-based companies, they are usually non-profit organizations and in this thesis I will be focusing on profit-oriented green businesses.

Another important concept to define is sustainable business. The definition I will be assuming is the overall accepted definition of sustainable business. As such, a sustainable business is one that can thrive in the long term and in order to do so must have the three pillars of sustainability (environmental, social and economic) well established within the company and its operations.

The last concept I consider important to define is the “eco-friendly” concept. To put it simply, I will be assuming an “eco-friendly” company to be one that makes an attempt to reduce the impact of its activities on the environment.

These last three concepts, although different, are definitely related. Since all of these concepts are somehow derivations of each other it becomes true that a sustainable company can be considered a green company and a green company can, in turn, be considered an eco-friendly company. However, the opposite is not true.

The research question that this thesis tries to answer is the following: Is the Portuguese economy welcoming to ecopreneurs and to the emergence of green businesses?

To answer this question I intend to analyze the context of the Portuguese economy and to study the green industry in order to see if Portugal presents an attractive political, economic and environmental context for ecopreneurs to start green businesses in the hope of helping the country become more environmentally sustainable.
The discussion section of this thesis is divided into two parts. I begin by studying the Portuguese context when it comes to entrepreneurship, environmental degradation, environmental sustainability and incentives to entrepreneurs, which I then summarized by performing a PESTLE analysis. The second part of this discussion is a market analysis for a green start-up. This includes an outlook of the green industry and of the target market, a competitive analysis and a SWOT analysis which will summarized this section of the discussion.

In order to discuss this theme I will mainly rely on secondary data from papers, articles, statistical sources and published surveys. This is where the biggest weakness of this work lies. Since I did obtain any observational data or performed any surveys or interviews, I will be solely relying on other authors’ studies and on data collected by other sources to perform my study. However, since this thesis is, in summary, an analysis of Portugal’s environmental situation and sustainability, a lot of the information I required was already available.

5.2. Research results:

5.2.1. Context analysis:

5.2.1.1. Entrepreneurship in Portugal

Entrepreneurship in general has been a huge trend in Portugal for a while now. A study from Dun & Bradstreet shows that Portugal has an average of 47,000 new entrepreneurs each year, of which 64% are new to the business world. It also shows that between 2007 and 2015, 31,000 start-ups were created and that the turnover of a Portuguese start-up grows on average 136% in the first year. However, not all start-ups survive past the first year. In fact, approximately 67% of start-ups born between 2007 and 2015 survived the first year and only 52% survived the third year. The sectors which currently harbor the largest number of birth of start-ups are Services (26.7%) and Retail (16.1%), followed closely by Restaurants (12.1%). Refer to Figure 1 on the Annexes.
This year, though, there has been a decrease in the number of companies created (28 326) compared to previous years. However, there has also been a decrease of 22% of the number of insolvencies and shut downs, which makes this an encouraging scenario for new entrepreneurs.

**5.2.1.2. Environmental Degradation in Portugal**

Portugal is currently the fourth country with the best performance when it comes to fighting climate issues, according to the Climate Change Performance Index. This index includes 58 countries that are responsible for over 90% of worldwide Greenhouse Gas (GHG) emissions.

In 2015, the production of renewable energies in Portugal represented over 60% of total energy production, placing it in fifth place from a total of 29 countries when it comes to the production of renewable energies, according to the IEA¹.

Despite a good performance regarding renewable energies, Portugal was still presenting a high energy dependence in 2015. In 2014, imported energy represented 71% of consumed energy which was a drop from 81% in 2005. Although lower than it was nine years ago, this value was still well above EU average (54%) and it has since increased to reach 78.3% in 2015.

On that same year, the most imported source of energy was petrol, corresponding to 77.2% of total energy imports. Refer to *Figure 2* on the Annexes.

As high as petrol imports were in 2015, the increase in energy dependence could not have been due to this fuel as petrol imports decreased 2.9% from 2014 to 2015. Instead, this increase was due to an increase in the imports of electricity, natural gas and biofuel.

Despite this increase in imports of other energy sources, petrol was still the main source of energy being consumed in the country in 2015, representing 49% of total energy consumption. Refer to *Figure 3* in the Annexes.

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¹ IEA - International Energy Agency
With almost half of total energy consumption being linked to petrol, CO₂ and GHG emissions in the country are a natural consequence. In 2015, Portugal was one of the countries responsible for the increase in total CO₂ emissions in the EU. It caused an increase of 8.6% when compared to the previous year. As such, there is definitely some room for improvement when it comes to CO₂ emissions. In order to reduce these emissions, energy consumption has to shift from petrol to renewable energies as much as possible. It, therefore, becomes essential to learn which industry/sector uses petrol the most, so as to know how to reduce the overall petrol usage.

In 2014, the sector that presented the highest primary energy consumption was the transports sector, with 36% of overall primary energy consumption. This sector managed to surpass agriculture and fishing (3%), the industrial sector (31%), the domestic sector (17%) and the services sector (13%). Of these 36% of total energy consumption, 99% was in the form of petrol. Refer to Table 2 in the Annexes.

As mentioned above, there is a clear link between the use of petrol and the emission of GHG. As such, it is expected that the transports sector would present the highest levels of these emissions when compared to other sectors. Indeed in 2014 the total emission of GHG by the transports sector was 15 712 tons of CO₂ equivalent (tCO₂e) which surpassed the GHG emissions generated by the other sectors. Refer to Figure 4 in the Annexes.

With the high emissions of CO₂ and other harmful gases in mind, BCSD² Portugal implemented the “Low Carbon Economy – Solutions made in Portugal” project in 2015. This project sets out to build a low carbon economy, or green economy, which is an economy capable of creating jobs and richness and promoting business competitiveness through a lower environmentally impactful production of goods and services. Low Carbon Economy – Solutions

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² BCSD Portugal - Portugal’s Business Council for Sustainable Development
made in Portugal includes 32 sustainable solutions created by the BCSD to be implemented by Portuguese or Portugal-based companies. These solutions represent a step towards creating energetic efficiency, larger production and use of renewable energies, the replacement of raw materials, low carbon transportation systems and production and use of alternative fuels. They have been implemented by companies such as ANA, Brisa, Bosch, EDP, Galp and Metropolitano de Lisboa, among others.

GHG emissions are an important cause of environmental degradation but they are not the only cause. The production of waste also plays an important role in this degradation.

In 2014, 14 586 917 Tons of waste were produced in Portugal. That includes household waste, produced by families and waste originated by the different economic sectors of activity. Households were the largest source of waste produced in the country (4 710 465 Tons) in the same year. It was followed by activities related to water supply, sewage and waste management (3 469 668 Tons) and by the manufacturing industry (2 615 819 Tons). Refer to Figure 5 in the Annexes.

Although 14 586 917 Tons of waste puts Portugal in 10th place for the lowest amount of waste produced in the EU, it is still an area that should be worked on, especially because Portugal is a large touristic base and the more tourists the country welcomes, the larger the waste production not only by the visitors but by the sectors of activity that cater to tourists more directly such as the services sector.

5.2.1.3. Environmental Sustainability in the Portuguese Economy

BCSD Portugal along with Instituto Superior Técnico created the OSE\(^3\) in 2008 which is an organism of observation, analysis and evaluation. It looks at the contribute of BCSD Portugal’s

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\(^3\) OSE – Observatório de Sustentabilidade Empresarial
member companies to the sustainable development of the country. The basis of this mechanism is the ISE\(^4\) which is a tool, more specifically a survey, which measures the performance of companies and identifies their needs regarding environmental sustainability based on the following areas of diagnosis: Strategic Leadership; Human Capital; Sustainable Production and Consumption; and Energy and Climate.

The last ISE survey was performed in 2014 and included 42 companies. Data shows that 76% of companies claims to have a model of strategic leadership that is prepared to meet the challenges regarding environmental sustainability, 56% claim to have employment posts where environmental sustainability is a requirement in the job description. In terms of sustainable consumption, 64% of the companies claim to select suppliers based on their environmental performance and 57% use renewable energies. As far as energy and climate goes, 81% said to have established goals regarding the reduction of energy use and 67% indicated that they have integrated climate change into their strategy.

The results of this survey seem to indicate that companies tend to focus more on areas of intervention where they can actively see a change, such as reduction of GHG emissions, but not so much on the investment in human capital which could potentially lead to more sustainable changes in the future.

Some of the reasons why companies tend to become sustainable are: Cost Savings; Customer Retention; Risk Management; Fiscal Incentives; Employee Retention; Reputation; Competition and Concern over the Environment.

If, as the above mentioned survey seems to suggest, companies are more concerned with making noticeable changes instead of investing in the future, it could be that this change towards

\(^4\) ISE - Índice de Sustentabilidade Empresarial
sustainability has been brought about by short-sighted reasons such as reputation and competition as opposed to more solid reasons such as building a sustainable society. Although, any change towards sustainability is appreciated, this is a little worrisome in the sense that companies do not seem to be thinking about the future in a sustainable way and, since they are the biggest contributors to Portugal’s environmental degradation, they are pivotal to reversing this trend and building a sustainable future.

5.2.1.4. Incentives to Entrepreneurs by Portuguese Institutions

Nowadays there are a lot of programs in place that aid young entrepreneurs in the creation of their business. These include, among many others, “Investe Jovem” by the IEFP\(^5\), “Projectos Inovadores” by ANJE\(^6\), “Empreendedor +” by the IAPMEI\(^7\) and “Startup Portugal” by the Portuguese Government. For example, the latter provides fiscal benefits to investors who choose to invest at least two thousand euros in Portuguese start-ups.

As for ecopreneurs specifically, there are some programs that encourage the creation of sustainable solutions. These include the POSEUR\(^8\), a part of Portugal 2020, which has the goal of creating a model of sustainable development for the country, the “Fundo Português de Carbono”, approved 3 years in a row which supports, among other things, projects that contribute to the reduction of GHG, the “Fundo de Intervenção Ambiental” which supports projects that help reduce the production of residue, and a few other environmental funds which the government intends to combine into one single fund, the “Superfundo Ambiental”, until 2019.

\(^5\) IEFP - Instituto de Emprego e Formação Profissional
\(^6\) ANJE – Associação Nacional de Jovens Empresários
\(^7\) IAPMEI - Instituto de Apoio às Pequenas e Médias Empresas e à Inovação
\(^8\) POSEUR – Programa Operacioanal de Sustentabilidade e Eficiência no Uso de Recursos
5.2.1.5. PESTLE Analysis

A PESTLE analysis is a way to better understand the market context by analyzing the macro-economic trends visible in it that may affect one’s business operations. These trends are grouped into six categories: Political, Economic, Social, Technological, Legal and Environmental (PESTLE). For the full PESTLE analysis refer to Appendix A in the Annexes.

A political trend currently recognized in the market is the Government incentives and aid programs in place which are a great encouragement to entrepreneurs and ecopreneurs. The Brexit is also a political trend and, since it may alter the trading relationship between Portugal and the UK, it is important to acknowledge in the case of companies that are considering exporting as an option.

As for economic trends, the economic crisis seems to be the most obvious and harmful trend for companies already operating and for ecopreneurs who plan to create a company.

Socially, some of the most noticeable trends are the health movement and the sustainable consumption which are somewhat related to each other.

Technological trends such as the demand for online products or services should be carefully considered as it opens up an additional way to do business which many companies have been taking advantage of for years now.

Legally, the search for an environmental certification to have a chance at competing with other green businesses is among the current trends.

Lastly, as already mentioned, some of the environmental trends currently found in the market are the concerns with the carbon footprint, climate change and the scarcity of resources.
5.2.2. Market Analysis

In order to know the potential for ecopreneurship in Portugal, it is essential to understand the market that integrates this form of entrepreneurship. Thus, a market analysis will be conducted for ecopreneurship in Portugal.

5.2.2.1. Industry Outlook

The industry in question here is the green industry. This industry is served by green companies or start-ups. Collected data shows that in 2015, the total annual turnover of companies that produce environmental goods and services was 4 726 339 thousands of euros. This represents an increase from 2011, when the total annual turnover was 4 637 221 thousands of euros. Refer to Table 3 in the annexes.

To sum up, the size of this industry was, in 2015, 4 726 339 thousands of euros.

This increase in success throughout the years could be due to the increased awareness of environmental issues which has increased the demand for more sustainable products or services, thus increasing the companies’ sales and, ultimately, turnover. This increase in demand means that there is an opportunity for ecopreneurs to step in and increase the market supply for sustainable goods and services in order to match this new demand.

The reported growth rate of the companies’ annual turnover was 5.3% from 2014 to 2015. Taking this into account, it is expected that the total annual turnover of companies producing environmental goods and services will continue to grow by 5.3%, thus reaching 4 976 835 thousands of euros in 2016 and 5 240 607 thousands of euros in 2017.

5.2.2.2. Target Market

Without a specific company, product or service on which to base this analysis, it is difficult to analyze the target market with precision. As such, I will broadly characterize the target market for green companies.
A green company can be B2B, B2C or both. Thus, in case of a B2B company, the target market can be other companies who wish to become greener and are in search of processes, services or technologies that will allow them to achieve some level of environmental sustainability, or companies that use green materials or processes in order to carry out their main activity. In case of a B2C company the target market will be customers who worry about health and the environment and who are potentially willing to pay a premium for products and services that are environmentally friendly.

Given the increase in awareness of environmental issues and the trend that is environmental sustainability, it is likely that the target market for green companies will increase with time.

5.2.2.3. Competitive Analysis

Once again, the analysis of the competition in the green industry will be extremely broad due to the lack of specificity regarding the company or the product/service offered.

As for green companies, there is a lot of competition, especially since sustainable companies are also considered green companies. EDP, Sonae Sierra, Galp and Caixa Geral de Depósitos are a few examples of sustainable Portuguese companies.

When it comes to green start-ups, there are a few successful examples in the Portuguese Economy such as EMOVE, Unplugg, BioBoards, Wisecorp and PLY&co.

Although short on barriers of entry, the green industry does present some. These would be the patents and the need for product certification. Since this industry is based on creativity and invention of new, innovative products/services, patents are a big part of it. They constitute a barrier to entry in the sense that they prohibit the use and production of the patented products and services, thus reducing the opportunities available for companies to enter the market. As for the need for product certification, since it has become a trend among companies to acquire environmental certifications so they improve their reputation and answer consumers’ wishes for more
environmentally-friendly products and services, to not have such a certification would make it hard for a company to compete in this industry.

One way of determining the opportunities available to companies in this industry is through tools that provide insight into a determined market/industry, in this case the green industry, as well as into the capabilities of a company to succeed in the industry in question. The tool that will be used in this thesis in order to make this analysis is the SWOT analysis.

5.2.2.4. SWOT Analysis

A SWOT analysis can be performed with a company, an industry or a person in mind. In this case, I will be performing a SWOT analysis for a hypothetical green start-up in Portugal. For the full analysis refer to Appendix B in the Annexes.

The four pillars of the SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) were carefully constructed and a brief summary of the results will be presented below.

The strengths of a green start-up are the internal factors that may provide the company with a competitive advantage in the market. I believe that a green start-ups’ biggest strength is its people. These companies are created by ecopreneurs who have a vast knowledge of environmental issues, who are eager to make a difference and who are persistent, innovative and creative individuals.

The opposite of strengths, the weaknesses are the internal factors that may provide a green start-up with a disadvantage in the market. As the previously mentioned Dun & Bradstreet survey shows, 64% of ecopreneurs do not have any previous business experience which if that is the case may constitute a weakness of the company’s. Also considered a weakness is the size of the start-up because once operating in the market it will have to compete with larger and more established companies which can be a disadvantage.

The opportunities are considered to be the external factors. They are elements of the surrounding environment that a green start-up can exploit to its advantage. The higher demand for
green products as well as for sustainable tourism are considered opportunities. The EU community funds and the reduction in the corporate tax rate\(^9\) are equally considered opportunities for a green start-up.

And finally, the threats are the external elements that may be harmful to the businesses’ operations. As threats are considered the discouraging long-term company survival rates, the risk and uncertainty and the economic crisis.

6. CONCLUSION

Portugal is recognized for its efforts towards sustainability. For a few years now, businesses have been making changes in order to become more sustainable. However, as shown by the D&B survey, the reasons for these changes may be fueled by a need for reputation and not for a genuine care for the environment. Green start-ups, on the other hand, are created with the future of the environment in mind and, as such, I believe it is on them that investors should focus their efforts.

The market analysis which was the base for this thesis and which I hoped would answer the question that I set out to answer in the beginning of this work project has revealed some great opportunities for ecopreneurs in Portugal, such as, the expansion of the target market due to the increase in awareness of environmental issues, the steady growth in market size, the EU community funds, the programs supporting entre- and ecopreneurship, and the reduction in the corporate tax rate. It has also revealed some weaknesses and threats that ecopreneurs may encounter, such as, the smaller business experience compared to larger companies, the risk and uncertainty and the barrier to entry in the green industry. However, being aware of these weaknesses and threats allows ecopreneurs to better prepare themselves to face the future.

\(^9\) Normal Corporate Tax Rate is 21%. However, for small and medium businesses, the first 15.000€ of collectables are taxed at 17%.
Although Portugal’s efforts towards environmental sustainability, there are still some areas lacking in sustainable solutions. These areas are the production of waste and the emissions of GHG. These are areas that require a lot more intervention, which ecopreneurs should view as an opportunity.

Data shows that the transports sector is the most polluting sector as well as the most petrol dependent and, as such, appears to be a sector in which a big change can be accomplished. When it comes to the production of waste, the households seems to be big contributors, followed by water supply, sewage and waste management and the manufacturing industry. These areas could, therefore, use some intervention.

The research question I set out to answer at the beginning of this thesis was whether the Portuguese economy is welcoming (politically, economically and environmentally) to ecopreneurs and to the emergence of green businesses.

I believe the answer is yes. Environmentally speaking, there are definitely some opportunities for improvement when it comes to GHG emissions and waste production. When it comes to the political and economic spectrums, despite the economic crisis still present in the country, I believe that the opportunities available to ecopreneurs, be that the programs and incentives or the expansion of the green industry and target market definitely outweigh the weaknesses and threats that they may encounter.

7. REFERENCES


23. 2015. “76% das Empresas Diz Ter Modelos Estratégicos para Responder aos Desafios da sustentabilidade”. *Green Savers*


