Sustainable entrepreneurship in the reuse of textile waste: H Sarah Trading case study in Portugal.

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Abstract: The current business models are experiencing changes guided by the solution for serious global problems, related to the indiscriminate use of the planet resources, as well as the unrestrained production of waste and disposals. Thus, companies are being stimulated to rethink their market strategies, based on sustainable entrepreneurship theme, aimed at enhancing economic enterprise development and at the same time having environmental and social purposes. Faced with this new reality, this article aims to analyze how the structures of the new business models, with a focus on sustainable entrepreneurship, for the management of textile wastes, are being designed. So, a qualitative research was carried out, through a case study of a Portuguese company - H Sarah Trading - that works with waste management. The research results point to the construction of business structures that are moving towards sustainable development, balanced with economic profitability, and environmental and social benefits.

1. Introduction

Sustainable entrepreneurship has occupied space in the creation of new companies that seek to adapt their products and services, in order to require for a new and more conscious consumer that is already emerging. Its growth is also justified by the need to reach a balance between financial profitability and economic development, within justice and social welfare, environmental conservation and the rational use of natural resources [1].

This way, many companies begin to make use of sustainable entrepreneurship, as an agent of social and economic transformation, to find solutions to the negative impacts that are generated by the production processes. In the textile sector, the issues related to the management of its discards become even more evident, due to the relevance of this segment in the world economy.

In Europe, for example, 5.8 million tons of textile waste is discarded every year, 75% are sent to landfills or for incineration and only 25% to recycling [2]. Specifically, in Portugal, 5% of the 4607 tons of urban solid waste consists of garments or household textiles, ending up in landfills or are incinerated [3].

The present context motivates us to understand the changes that are being implemented by the textile and clothing sector in search for new waste management systems that can incorporate the concept of sustainability to minimize ecological and social crises, aiming at the maintenance and perpetuation resources for future generations [4].

Thus, this article aims to conduct an exploratory study to analyze the structure of business models, focusing on sustainable entrepreneurship, to minimize the impacts caused by textile waste, possibly minimized with reuse and/or recycling.

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Therefore, the company H Sarah Trading, which operates with waste management and it is based in Portugal, was chosen as the unit of analysis for the case study of this research. The selection was based on the differentials of its corporate structure, the immense network of established partnerships and the benefits delivered to its stakeholders.

Based on data collected and analyzed, it is expected that the investigation can become relevant in the development of knowledge for future investigations on the business models that are managing textile waste, guided by sustainable entrepreneurship as well as for the reflection of new paths searching for a more fair and sustainable society.

2. Background

Sustainable entrepreneurship is a recent theme of studies, and still in process of conceptual construction. This subject contains a nascent flow of research that finds an intersection between sustainable management and entrepreneurship [5]. Despite presenting several definitions, sustainable entrepreneurship can be understood as the discovery and exploitation of economic opportunities that come from states of market imbalances and that can initiate the transformation of a sector towards an environmentally and socially sustainable state [6].

The environmental aspect aims to reducing the exploitation of valuable resources for the environment, reducing the conception and use of harmful substances, minimizing the environmental pollution and the production of waste. On the social area, sustainability can encompass the promotion of social integration, and the development of safer and fairer societies, with respect to human rights, diversity and equality, as well guaranteeing the main means of subsistence [7].

The discovery, development, and exploitation of opportunities are related to a generic process and the activities of sustainable entrepreneurship. The economic, social and ecological benefits generated refer to the triple bottom line, which must be kept in balance.

The delineation of these trends leads to the construction of different models of sustainable entrepreneurship, which are defined with a typology that considers three indicators: the niche of sustainability explored, the role of sustainability and the use of corporate social responsibility. As for the *niche* of sustainability exploited, this could be environmental or social (although hybrid business also exists). The role of sustainability is related to what this concept represents for the company, in other words, whether it means to achieve its end or the purpose of the organizational culture. Social responsibility is related to the company's awareness of assuming its active role in generating positive impacts on society [8].

Thus, sustainable entrepreneurial orientation is identified as an adaptive, innovative and externally oriented capacity that refers to the organizational predisposition to accept proactive, innovative and risk-taking processes, practices and behaviors, towards the achievement of sustainable development [9].

3. Methodology

This study was developed with a first phase through a literature review, in current indexed studies and books, which investigate the theme of sustainable entrepreneurship. In the second moment, a qualitative-exploratory research was carried out, through a case study, of H Sarah Trading Ltda.

This company has been operating in the Portuguese market since 2006 and is holder of a license to operate in waste management. It presents itself as a liaison between the citizen and the textile recovery cycle. Its activity aims to reduce the quantities of textile waste destined to landfills by reusing/recycling these materials, contributing to the awakening of a sustainable awareness among citizens [10].

The data collection was done through a semi-structured interview, *in loco*, at the unit in Braga-Portugal. The research was applied in July 2018 by the researchers of this study, intervening the two project managers of the company: Liliana Neves Cruz and Daniela Filipa Pereira. In addition, the technical materials available, as reports, videos, and the company website were consulted.

4. Results and Discussion – Case Study

The data on the H Sarah Trading case study were collected with the prior definition of parameters in order to systematize the analysis procedure and was divided according to the following items: i) analysis of the business model; ii) identification the environmental and social benefits of the business; iii) the relevance of the business to the partners' network; and iv) communication strategies for visibility and brand building.

4.1 Business Model Analysis

The H Sarah was established in 2006, but the waste management activities began in 2010. The company holds the Waste Management Operator's Permit and has an integrated system of selective screening of textiles, giving new meanings to the material that is collected. This material includes used clothes, footwear, and toys, which are deposited in more than 3 thousand containers spread throughout the national territory of Portugal, in public or private areas.

Another collection channel is through partnerships, based on protocols with public and private entities that receive garment donations and assign them to H Sarah to undergo hygiene and selection processes and then return according to the specific needs of the organizations.

Today, there are 3 poles that work as transfer warehouses, in the cities of Lisbon, Braga and Seia, the last one being the center of sorting and headquarters of the company. The collected materials are sent to one of these centers, where the initial screening is carried out in 3 categories: shoes, toys, and clothes. After this initial separation, the materials are sent to the screening unit of Seia, which has a crew of 80 people.

The used clothes undergo a triage according to the quality of the pieces and depending on this, it takes different destinations. Pieces that are classified as good quality, in the new or semi-new state, are intended for donation. Thus, they are referrals to the partner institutions, after having gone through the service of sorting and cleaning and separation according to the demand of each institution, thus meeting the social objectives of poor families.

After these sorting processes, the pieces go to a process of hygiene in a fumigation machine, which disinfects the pieces by vapors, which reduces the energy consumption, compared with a traditional washing process.

The second level with the usable parts, that do not meet the quality of donation, are valued for export to African countries, but from this point, the company has no further intervention in the screening of materials.

The third level quality parts, that not suitable for use, are directed to recycling and shipped for export, mainly to Pakistan and India. In this case, according to information from the company managers, they do not fall into the status of waste, since they have already undergone transformation processes.

The second and third level of parts represents the core business of the company, the main area of operation of H Sarah Trading. It is the business generated by these two types of materials, that the company can remain economically active and competitive in the waste management market.

It was observed that the business model under analysis is gaining strength by the construction of partnerships, which allow the company to capillarity of waste collection points, through protocols. Some of these agreements, according to the interviewees' testimony, are established by the exchange of services or financial compensation, reverted to benefit to the public attended by the partner entities.

4.2 Identification of the environmental and social benefits of the business

The business model developed by H Sarah Trading presents environmental benefits by helping to minimize the problem of the disposal of garments as urban solid waste. By proposing environmentally correct solutions to the destination of these materials, H Sarah ends up reducing the environmental impact of pollution and minimizing the extraction of natural resources. Currently, the company collects an average of 350 tons of waste per month. In 2017, 79,63% of total waste was destined for reuse (valorization and donation), 7,56% for textile

recycling, 1,24% for recycling of other materials (such as plastic and cardboard) and 11,58% are not used and thus are directed to landfills.

About social benefits, one can observe the company's commitment to actions that promote its active participation in society in the sense of developing cooperation bridges and promoting corporate responsibility. A social contribution observed, refers to the service of sorting, sanitizing and re-routing of donations according to the needs of each partner institution. Through this action, the institutions receive the donations back according to their specific demands, to facilitate processes.

In addition, it was observed the company's interest in contributing as protagonist or partner in social actions. With the project "Sarah goes to school", for example, the company aims to sensitize children and young people to the practice of environmental education and correct recycling and reuse through playful activities of manual labor with textile.

The association with the ABAE - Blue Flag Association of Europe, which coordinates the "Eco Schools" program in Portugal, contributes to reinforcing social actions in the field of textile recycling. Thus, H Sarah entered as a partner in the project "Used clothes are not finished" which now has more than 200 schools enrolled. The objectives of the project are to inform and raise awareness about the importance of textile reuse and recycling, to promote the reuse of end-of-use clothing and to provide the community with delivery sites with the correct referral of this waste. The themes of this project involve issues of cultural valorization and the year 2018, had as a motto "Our Forest in Tissue" that invites the students to personalize discarded pieces of fabric inspired by icons of the forests of Portugal.

Another example of H Sarah's social contribution is the partnership with the Dorcas Project, which was born in 2013 in Cartaxo-Portugal. The project consists of volunteers who, in addition to other social activities, make dresses, (as an example of figure 1), from shirts, sheets, and other donated garments, which are sent to girls in need mainly from African countries.

According to the information gathered, the structure of the analyzed business model follows the principles of sustainable entrepreneurship. It can remain economically active in the market, generating more than 120 jobs, contributing to boost the national economy, while at the same time, it brings environmental and social benefits to partners and society.

4.3 Relevance of the business to the network of partners

Based on the benefits that have been mapped out, it can be said that H Sarah Trading turns out to be a relevant business for its stakeholders. Currently, the company has a network of almost 50 municipalities and parishes and more than 20 public and private institutions with which it maintains different partnership protocols.

For municipalities and parishes, H Sarah contributes to improving the management of the collection of municipal solid waste, clothing, shoes, and toys, by making collection points and disposal service environmentally correct for reuse or recycling. This fact minimizes costs of municipal funds with the management of this waste and mainly reduce impacts with the environmental pollution of the materials that would be directed to landfills.

Regarding public institutions, H Sarah has relevance for facilitating the work of sorting donations, because the clothes that are received by these entities end up not meeting their demands of size or gender, for example. Thus, with the partnership created, H Sarah offers the service of sorting and disinfection or even financial consideration, or in foodstuffs, used in favor of the actions with the poor public served by these entities.

Private institutions also benefit from the partnership because they end up adding a positive brand image in the minds of their consumers by supporting sustainable causes and providing them with points for the correct collection of textiles.

4.4 Communication Strategies for visibility and brand building

The relationship between sustainability and economic development appears to be an antagonistic structure and thus, many business models, guided by sustainable entrepreneurship, end up being criticized and generate doubts about the ethical business question. This also happens because many companies use the banner of sustainability only to achieve their economic goals and not a true business value.

In this sense, communication becomes a key tool to build a relationship of transparency with all the public involved, having a notable role in convincing consumers of the importance of sustainable consumption.

Consumers also expect more concrete information on how their behavior, for example, can affect waste reduction. The transparency of the production process is crucial to gaining consumer confidence. All communication channels should be widely used, and web paper and social media channels contribute to reaching a wider audience with an interest in sustainability issues [11,12].

According to Liliana Cruz, there is a concern to present in a transparent way, for the different publics of the Organization, all the activities, and processes that are developed by the Company. For the partners are presented monthly and quarterly reports with information of quantities and destination of waste. Already for society in general, the company is intensifying work on social platforms with the dissemination of videos of different stages of the waste management process, to demystify all activities that are developed by the Company.

The design of the containers presents differentials itself because they are designed in "t-shirt shape" and have the possibility of personalizing the visual identity according to the needs of the partners, as an example of figure 2. They are also explanatory with respect to the type of material, which can be collected and leave contacts for further information on waste disposal. In this way, they end up attracting the visual attention of the people while being a point of contact of the brand with the public.



Figure 1. Dorcas Project's dress



Figure 2. H Sarah's waste container

5. Conclusions

The research shows that today's societies are experiencing changes in their production and consumption systems to ensure the survival of future generations and reduce environmental impacts. This fact exposes the need for radical changes with the adoption of sustainable postures, both in people's daily lives and in productive systems, which need to find innovative and disruptive solutions to their waste.

The productive chain of the textile and clothing industry continues to follow these trends and starts to create industries and services focused on sustainable entrepreneurship. The case study carried out in Portugal with waste management, company H Sarah Trading, represents a business model that is based on the Triple Bottom Line [13], by adding environmental and social benefits to the development the Organization.

The structure of the business is being consolidated mainly by the creation of collaborative strategies through a network of partnerships that makes the business more financially viable to deal with complex environmental problems, caused by the harmful impact of incorrect disposal of post-consumer textile waste.

The use of containers in the public spaces of the cities, to collect the textile discards, is presented as a strategy to engage with consumers to attract attention and awaken sustainable

awareness. The results of the projects implemented with different stakeholders of the Organization strengthen the partnership network and gives visibility to the Company's positioning.

It should be emphasized that the communication strategies becomes fundamental to establish a sustainable business transparency relationship and design a positive image of the Brand for different communication channels, especially social platforms with greater reach.

Thus, it can be concluded that sustainable entrepreneurship has consolidated itself as a path with no return, to companies and emerges as a promising alternative for the textile sector to manage the impacts of its discards in a creative, innovative and financially viable way. In addition, it is emphasized that through entrepreneurship, companies can create new markets for sustainable products and services, influencing their productive chain that becomes more sensitive to environmental and social issues.

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