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Creating a hybrid business model to generate economic and ecological value

The case study of Fruta Feia Consumer Cooperative

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ABSTRACT

Title: Creating a hybrid business model to generate economic and ecological value: The case of Fruta Feia Consumer Cooperative

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The aim of this managerial case study is to identify which kind of issues may arise when building a hybrid business model that intends to achieve both economic and ecological impacts. More specifically, this thesis intends to move beyond general recommendations about managing social enterprises and instead strives to present the reader with the specific strategies implemented by the Fruta Feia Cooperative.

In particular, the analysis will focus on the relationship between the organisation and its stakeholders and how financial sustainability can be guaranteed on a long-term basis. To this end, along with the case study, different strategic critical success factors are pinpointed.

This study can also function as a guideline to leaders of social organisations by offering them elementary rules to overcome common challenges that they might face during the startup phase. They can find advice to shape their primary features, their business model, achieve financial sustainability and avoid mission drift.

SUMÁRIO

Título: Estratégias de criação de um modelo de negócio híbrido que origina valor económico e ambiental: O caso de estudo da Cooperativa Fruta Feia

Autor: Mariana Dias

Esta tese de mestrado tenta identificar eventuais constrangimentos no processo de implementação de um modelo de negócio híbrido, que pretenda ter impacto ambiental positivo, a par de um resultado económico sustentado. Tendo em consideração o universo de recomendações mais generalistas à gestão no ramo do empreendedorismo social, esta tese dá especial ênfase às soluções bem sucedidas implementadas na gestão da Cooperativa de Consumo Fruta Feia.

A sua análise baseia-se na relação entre a organização e os seus stakeholders assim como na sua estratégia económica e legislativa que garante uma sustentabilidade financeira a longo-prazo. Mais saliente que, por motivos de melhor aprendizagem, diferentes factores de sucesso implementados por parte da organização foram destacados durante o case study.

Para concluir esta reflexão, proponho que este caso de estudo seja utilizado como um auxiliar de normas simples, para todos aqueles que pretendam iniciar um projeto social e que enfrentem diferentes desafios durante a sua fase inicial. Aqui, poderão ser encontradas diferentes estratégias que ajudem potenciais empreendedores a definir o seu modelo de negócio bem como diferentes ferramentas para alcançar a sua sustentabilidade financeira e evitar a perda do seu propósito inicial.

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1 INTRODUCTION

“Welcome to a world where business requirements meet increasing societal demands”

(Santos, Pache, & Birkholz, 2015)

Research on organizational theory suggests that hybrid organizations are fragile organizations (Battilana & Dorado, 2010) due to their often incompatible goals (Westley & Vredenburg, 1996). Undoubtedly, the central challenge of these enterprises is trying to achieve financial sustainability while creating social and/or environmental impact (Santos et al., 2015). Identifying how leaders of social business hybrids are able to address these challenges while responding to a market failure can be really demanding. There are examples where social business hybrids had failed their mission due to an acquisition, leadership changes, or fierce competition from traditional commercial businesses (Haigh, Walker, Bacq, & Kickul, 2015).

For this reason, my thesis aims to identify and understand the **critical success factors** that lead Fruta Feia Cooperative to become a successful hybrid organization combining financial sustainability with social and environmental impact. The case presents the situation that Fruta Feia had to deal with in 2013, when the organization’s hybrid future was decided. More specifically, the main goal of this case study is to move beyond general recommendations about managing hybrids and to propose a working hybrid business model combining an innovative pattern with a specific type of revenue stream.

In order to better understand the solution of Fruta Feia Cooperative, an overarching Research Problem – *“Creating a hybrid business model to generate economic and ecological value”* - was broken down into three main research questions:

RQ1: Which type of hybrid business model best applies to Fruta Feia?

RQ2: What is the optimal business pattern for the chosen hybrid business model?

RQ3: Which strategy did Fruta Feia use in order to guarantee its financial sustainability?

A qualitative data analysis approach was used to answer these research questions. Initially, external and public data were analysed regarding Fruta Feia’s website, press and online news. As an official volunteer, I also had the privilege to observe their in-field activities during 4 months. In addition to that, internal data was added to the case study through explorative

interviews. Following a case-by-case analysis, key information was extracted and analysed regarding the purpose of this thesis.

Table 1: Structure of the collected data

SOURCE	SUBJECT		OBJECTIVES
11 Interviews with actors within the organization	Phone	I. Soares (CEO)	Characterize the project's main goals, business model strategy and initial idea; Understand the project scale and its performance; Identify the main challenges faced by the organization; Operations/Logistics explanation; Future objectives.
	Personal		
	Personal	M. Canelhas (Employee)	In-field work; Logistics explanation
	Email	A. Catarino (Volunteer)	Opinion and feedback
	Email	C. Querido (Partner)	Measure Fruta Feia's impact among its partnerships
	Phone	P. Dias (Farmer)	Economical and social impact; EU Quality Standards explanation; Examples of national retailers' behaviours.
	Personal	D. Henriques (Farmer)	Economical and social impact
	Personal	L. Domingos (Farmer)	Economical and social impact
	Email	R. Rodrigues (Associate)	Social impact; Opinion and Feedback
	Email	F. Ventura (Head of Efficiency and Innovation Environmental Projects from Jerónimo Martins)	Corporate Social Responsibility measures; JM's procedures regarding UE Quality Standards and Consumer Behaviour; CSR report; JM Food Waste CEMS
	Email	Pedro Lago (Director at Business Project)	Sonae MC's procedures regarding UE Quality Standards and Consumer Behaviour; Sonae MC's strategies.
Internal documents	Strategic documents; Reports		Financial Results; Costs Strategy; Rules of Procedure; Cooperative official statutes
Public Documents	Facebook; Instagram		Green Marketing Strategy
	Website		Cooperative overview; Associates' personal area, Published news; Results; Number of stakeholders; CSR report from Jerónimo Martins
Third Party Data	Online Articles, UE Quality Standards, FAO's report		Characterize and understand the industry and its challenges; Understand the phenomenon of FVW (causes and impacts); Provide theoretical insides regarding critical successful points.

In the following chapters, the reader can find relevant information about Fruta Feia Cooperative along with the academic theories from different scholars exposed on the literature review. The latter is divided into three different main topics that are aligned with the research questions presented above. It was built on existing knowledge in the fields of Social Enterprises, Business Models and innovative financing strategies. The Business Model Canvas template proposed by Alexander Osterwalder and Yves Pigneur (2010) will be presented in order to understand how a leader can build his model within an intensely competitive landscape. Examples will be presented pictorially in order to give a practical guide for the reader. Furthermore, aligned with the Canvas, five different Business Model Patterns will be analyzed for sustainable financially reasons within different organizations' structures. These topics are finally followed by an in-depth analysis of hybrid business model characteristics as well as the barriers that these kind of social enterprises face nowadays.

For the purpose of this research, the term social enterprise will be seen as a social and environmental mission that engages in commercial activities to sustain its operations (Dees, 2001; Mair, 2010). By other words, **the term environmental impact will cover both ecological and social purposes.**

Finally, the teaching note is structured to function as a class discussion where students are invited to analyze the research questions exposed. They should be able to recognize the best hybrid business model for Fruta Feia Cooperative and develop the nine building blocks of its strategy in order to understand what are the best tools to achieve financial sustainability.

2 CASE STUDY

2.1 Initial Idea

“I couldn’t believe that merely aesthetics standards would originate such a huge amount of food waste”

Isabel Soares, Founder of Fruta Feia Cooperative

Christmas time, 2012

As Isabel rolled over to turn off her alarm at 7 o'clock in the morning, she realized that, once again, she had not slept the whole night. It had been a week since she saw *that documentary* about food waste, which somehow had left her with mixed feelings: Indignation? Rage? Or the desire to lead change and make a difference in her own country?

Isabel was working as an environmental engineer in Barcelona for the last few years. To an outsider her career progress might have seemed solid, but to her, it lacked impact and significance. Although with the work experience she had gathered, she had the chance to start a new social and sustainable enterprise: “We are talking about 30% of food waste produced by farmers which translates to more than 1.7 million tons per year in Portugal (PERDA, 2002) only due to aesthetics. This waste has not only ethical but also environmental consequences, since it requires the unnecessary use of resources for its production (like soil, energy and water) and the emission of carbon dioxide and methane, a by-product of the decomposition of the food that is not eaten”.

In managerial terms, Isabel was trying to find a way to give a second life to those “ugly fruits and vegetables” that are despised not only by supermarkets but mainly by their potential final consumers. She wanted to channel that part of the wasted production to clients who did not judge the food quality by its appearance (format, size and color) while fighting a market inefficiency and creating a movement that could change consumption patterns. (“Fruta Feia | Gente bonita come fruta feia,” n.d.)

The idea seemed intuitively appealing and it would provide the Portuguese engineer with an opportunity to pursue a pro-environmental mission while decreasing producers’ losses. The commitment was becoming real: Fruta Feia would address a market failure.

Nevertheless, as time passed, difficult decisions emerged: Isabel knew that finding a good business model would be vital to survive within the market. Moreover she had to be sure that

stakeholders would remain perfectly engaged throughout the life-cycle of the project in order to create a quadruple win situation (for producers, consumers, environment, and Fruta Feia as a company).

With a hybrid value proposition, that would promise not only a price reduction for consumers but also an ecological movement, Isabel started thinking about her options. The idea of building a typical for-profit organization was against her own values since she didn't want to take any advantage of Portuguese farmers who were facing a real problem in their own business. On the other hand, building an NGO that needs external help such as public or philanthropic funding could rapidly compromise her business and her commitment to her stakeholders.

As an ultimate solution, a Cooperative organization could be a reasonable idea since the consumers are the ones who need to fight against this issue. It was important to make sure that a sense of belonging was being created. In fact, what differentiates consumer Cooperatives from supermarkets is the importance that each associate has, since he/she isn't just a mere buyer, but also an owner of the business. The purpose is to provide quality goods and services at the lowest cost to the consumer/owners rather than to sell goods and services at the highest price above cost that the consumer is willing to pay. (Chapter James Peter Waebasse & Charles Gide, n.d.)

Bearing all this information in mind, Isabel knew that her organization had to move forward, but she was unsure of what strategy to pursue.

2.2 Understanding the Environment – Industry and its challenges

2.2.1 A world of food waste and loss

It is estimated that almost 90 million tons of food are annually wasted in the European Union (Stenmarck, Jensen, Quested, & Moates, 2016). This value is expected to increase by 40% during the next 4 years (Plazzotta, Manzocco, & Nicoli, 2017). Studies point to 280 kg wasted per capita per year in Europe and North America (FAO, 2011) which poses moral problems given the inequality in access to food across the globe (Parfitt, Barthel, & Macnaughton, 2010). Furthermore, this also means a huge economic loss to the farmers.

Food and Agriculture Organization of the United Nations recognizes that one third of the edible parts of food that are intended to human consumption get lost or wasted (FAO, 2011). Particularly in Portugal, the waste goes up to 1.7 million tons every year, according to PERDA, 2002 ("Fruta Feia | Gente bonita come fruta feia," n.d.).

Regarding the fruits and vegetables industry (where Fruta Feia company operates), a common term is being used: FVW - Fruits and Vegetables Waste – “defining fruits and vegetables that are discarded during collection, handling, transportation and processing” (Chang, Tsai, & Wu, 2006). For this reason, in this case study, the term Fruits and Vegetables Waste (FVW) will be used to generally indicate fruit and vegetables that are discarded along their supply chain.

2.2.2 The causes of FVW along their supply chain & the concept of Suboptimal Food

The causes of FVW tend to be different regarding the industry and geographics: inaccurate forecasting, product damage, packaging/labelling mistakes, out of shelf-life product, cannibalization due to promotions, among others (Mena, Adenso-Diaz, & Yurt, 2011). Agriculture in particular is mainly affected by programmed overproduction, quality standards requested by the European Union and the fruits’ and vegetables’ appearance (FAO, 2011). The latter represents the small sized or misshaped fruits and vegetables usually defined as “**substandard or suboptimal**” food (Mena et al., 2011) that consumers assume as low quality, ugly or out of date. Authors like (Aschemann-Witzel, Jensen, Jensen, & Kulikovskaja, 2017) also defend that since these products are visually suboptimal or come with minor defects they are automatically considered as unsafe. Moreover, this is one of the main reasons why retailers are avoiding “ugly fruit and vegetables”: more than a question of standardization, is truly a commitment with consumer expectations and demands. However, such demand results in a waste of about 30% of what’s produced by farmers (“Fruta Feia | Gente bonita come fruta feia,” n.d.).

2.2.3 Fruits and Vegetables Waste Management - Existing initiatives and its key success factors

Food retailers and start-ups around the world have been reacting to this situation by offering food items close to the expiration date or suboptimal in appearance but at a lower price (Aschemann-Witzel, de Hooze, et al., 2017). At first sight, this action seems a successful strategy since it’s not only morally right to consumers (Gjerris & Gaiani, 2013) but also economically profitable for retailers, who can still make some profit and be seen as social responsible and ethical. (See Appendix 1 for Intermarche campaign – Inglorious fruits and vegetables – and for the Dutch project: Kromkommer). Indeed, from a national panorama, Jerónimo Martins also confirmed by its Head of Efficiency and Innovation Environmental Projects, Fernando Ventura that the group is trying to fight food waste along different fronts. This initiative results on:

- Promoting good health through food supply of soups ready to cook and salads ready to eat, incorporating non standard products;
- Buying non calibrated food products that use to have no or little market value (more than 13000 tons in 2016) to be used in Pingo Doce's kitchens and to be sold to Recheio's customers.

However, all these examples accentuates the realization that **consumers are still not prepared for ugly products disposable in regular supermarkets' shelves**. As mentioned above, big retailers and other organizations are trying to work around this problem by using these products in ready-made meals.

Moreover, the data gathered by Pedro Lago, Director at Business Project in Sonae MC, give some strong evidence confirmatory about this problematic. The manager assumes that the group is a "customer centric" company where the main goal relies on customer satisfaction:

“We are constantly adapting our offer, our concepts and our services according to what the customer asks us for (explicitly or implicitly). Moreover, fighting against food waste is another very important question for us. Although, we try to reach it in such a way that our strategic positioning is not threatened”.

(P. Lago, Sonae MC, personal communication, December 2017)

Additionally, Sonae MC confirms that 90% of Fruits and Vegetables Waste is related to appearance and quality (real or perceived) – a measure that is made at the time of the withdrawal of the sales plate.

2.3 Fruta Feia – “Beautiful people eat ugly fruit”

2.3.1 Start selling ugly fruit

The requirements imposed by retailers and consumers regarding fruits and vegetables are forcing Portuguese farmers to have strict control and selection policies within their products. Size, colour and shape are measured in detail in order to ensure that the final consumer is presented only with “perfect and beautiful” products. Figure 1 shows an example of different “ugly products” that were banned from the preliminary retailer's selection.

Figure 1: “Ugly Products” sell by Fruta Feia



In line with this topic, Figure 2 shows an information poster located inside of a farmer’s warehouse where different criteria for tomatoes’ selection are described (colour, shape and number of tomatoes per stalk).

Figure 2: Information Poster regarding UE quality standards



Trying to change this national paradigm, Fruta Feia Cooperative “arises from the need to overturn the standardization trends regarding food, which have nothing to do with its quality and safety. **The project aims to fight a market inefficiency by changing consumption patterns and by creating an alternative market for ugly fruits and vegetables.** A market that values farmers and consumers and that can prevent food waste as well as the unnecessary use of resources to their production” (“Fruta Feia | Gente bonita come fruta feia,” n.d.). The

existence of Fruta Feia in the market doesn't affect the regular cycle of the "non-ugly" products since farmers only sell to the Cooperative those products that are not demanded by retailers. Moreover, this also means that an increase in ugly fruit consumption does not imply a decrease in non-ugly fruit consumption since the clients are not the same.

Indeed, Fruta Feia's strategy was meticulously implemented to take into account these dynamics. Fruta Feia model is based on a replication scheme where during four days a week, a wooden box of fruits and vegetables is delivered to each associate. The latter pays an annual fee of five euros, according to the Cooperative rules, that also works as a **subscription/membership** program. This means that besides promoting customer loyalty and community engagement, by default, the organization counts with every associate once per week. In other words, these individuals have always a prepared box waiting for them in case they don't cancel it in advance. For this reason, Fruta Feia website disposes a personal online area that truly engages the customer with the purpose of the project. In fact, they can not only check the box's composition from the following week as also give feedback, cancel orders, share healthy recipes and the most important thing: realize how much food waste was avoided through their own contribution. Of particular relevance, this is one of the most innovative strategies from Fruta Feia, which will be explained further on in this section chapter. (See **critical success factors – 2.5.4 "My personal impact"**).

Each city where Fruta Feia operates, namely Lisbon, Almada and Porto, has several delivery points geographically dispersed that work alternately. Thus, for each delivery point the products are transported from local farmers directly to the final consumer on the same day. This strategy not only guarantees fresh products but also **avoids any storage costs**. Moreover, the space where the delivery takes place is only required for an afternoon per week, and is usually provided for **free** by associations with social purposes.

All these dynamics reveal another essential characteristic of Fruta Feia's Business Model: the Cooperative is essentially based on a Lean Principle Thinking: zero waste, zero costs. (See **critical success factors – 2.5.3 Costs Strategy**).

The boxes that Fruta Feia gives to its clients are divided in two categories as can be seen in table 2 showed below:

Table 2: Main characteristics of Fruta Feia’s boxes

Type of Box	Price	Kgs	Fruits (un.)	Vegetables (un.)
Small Box	3,5 €	3 to 4	3	4
Big Box	7 €	6 to 8	3	5

Due to the characteristics of these products and their seasonality, during the summer, the small box brings 4 fruits and 3 vegetables and the big one brings 4 unities of each variety. Special orders for associations, canteens, restaurants, among others can also be done under the condition of not using any product for resale.

In conclusion, sold boxes and subscription fees are the only two revenue streams with a really low-profit margin.

2.4 Impacts

2.4.1 Environmental Impact

a) Ecological footprint

In the past, FVW was mixed into municipal waste streams and sent to landfills or incinerators (without energy recovery) for final disposal (Nawirska & Kwaśniewska, 2005). However, this is not a good option for FVW, due to its highwater content which is, in turn, responsible for microbiological instability, formation of off-odors and leachate (Abu-Qudais, 1996). On the contrary, FVW has a great potential of reuse – a strategy that Fruta Feia is playing with. The Cooperative prevents that “ugly” fruits and vegetables are send to the landfill and consequently rot.

b) Contribute to “Mariscar sem Lixo”

Fruits and vegetables are distributed in wooden boxes. However, these boxes are considered as fixed assets for the purpose of environmental and economical reasons.

For this reason, personal tote bags are offered to each associate when the first annual fee and purchase is made. Afterwards, they should be reused every time the client picks up his products.

By providing these tote bags, Fruta Feia is also helping the association Ocean Alive and the “Mariscar sem lixo” (“fishing without trash”) campaign of Guardiães do Mar. “This campaign

aims to eliminate the contamination of the marine prairies ecosystem of the Sado estuary by the plastic introduced by the local fishing and recreational community through the shellfish” (“Fruta Feia | Gente bonita come fruta feia,” n.d.).

Of particular relevance, and according to internal organization’s data, around 1300 plastic bags were being used in Lisbon for the purpose of strawberries’ packing and other small products.

2.4.2 Economical Impact

a) National reality – What are the benefits for Fruta Feia’s farmers?

“It’s an industry struggling to survive. It’s the apples that fall from the trees before harvest, the pests that damage the crops, the rain that doesn’t come, the quality standards required by supermarkets ... At the end of the day, it’s simply an ungrateful and tiring job”

(D. Henriques, farmer, personal communication, October 2017)

The economical impact in farmer’s revenues is probably one of the major achievements that Fruta Feia was able to generate. For a deeper understanding of this phenomenon, three interviews were conducted during an in-field observation.

Before going into more detail on this topic, it is worth mentioning the regulations enforced by the European Union that farmers face on a daily basis. The purpose of these standards is to define the quality requirements for fruits and vegetables at export-control before the products are available in the market (Narasimhan, 2011). The producers can’t sell their products in any manner other than in conformity with these standards. In case the products are not aligned with the regulatory framework, the products will be rejected.

The fruit and vegetable requirements are divided into three different subclasses - Extra-Class, Class I and Class II – each one related with specific conditions such as maturation, shape, colour, size, calibration, sound, cleanness, among others. In addition to that technical specification ensure that every fruit or vegetable product matches the standards set by the European Union.

The Godfather

Paulo Dias, owner of HortaCambaia Company is known within the Cooperative as ‘The Godfather’ of the organization. He was one of the first producers joining the project in 2013, supplying Fruta Feia with eight different types of vegetables and fruits. His nickname emerged after his proposal of sharing his storage facilities with Fruta Feia. Following his opinion, the decision of this action relies on the purpose of the project and on the availability of his warehouse. Paulo assumes that every single week, some of his products are sold to the Cooperative, making this little help not an effort but more a gesture of gratitude (P. Dias, farmer, personal communication, December 2017).

In the past, Paulo was working with one of the biggest portuguese retailers, but due to demanding quality standards he decided to depart.

“When I was working with Continente, the rules were extremely strict since they only buy the first category. In other words, this means higher calibrations, bigger sizes and fruits and vegetables in perfect conditions... They must be free from defects, with the exception of very slight superficial irregularities that do not affect the general appearance of the product”.

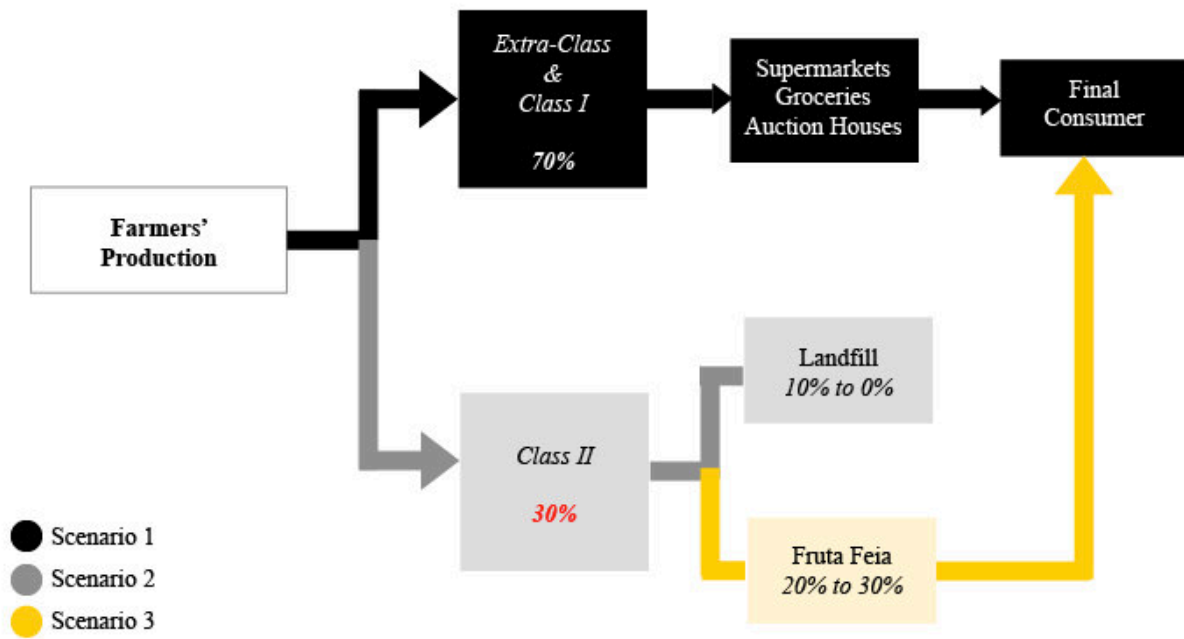
(P. Dias, farmer, personal communication, December 2017)

In case of Fruta Feia, the scenario is different. The Cooperative buys the last category required by UE’s standards – the only class that is not demanded by any other national retailer. Supported by this business model, producers like Paulo, recognize that the waste dropped from 30% to 15%/10%. The remainder being either inedible food or waste due to overproduction.

Figure 3 shows the actual product flow regarding the presence of all Portuguese retailers and Fruta Feia in the industry:

- Scenario 1 reflects national retailers behaviour;
- Scenario 2 represents fruits and vegetables that don’t meet supermarkets’ requirements going directly to the landfill;
- Scenario 3 shows “ugly” products that are bought by Fruta Feia and immediately delivered to the final customer.

Figure 3: National Product Flow



Regarding costs, the measurement seems difficult to obtain. However, Paulo claims that with Fruta Feia by his side at least one monthly wage is ensured by them. Another contribution to this data was Lucília Domingos who immediately recognized Fruta Feia’s potential. Some of the retailers who she works with don’t buy the last category due to aesthetic reasons.

“The majority of the products that I sell to Fruta Feia are lemons, a product that grows every season. I can ensure you that the financial impact is huge.”

(L. Domingos, farmer, personal communication, October 2017)

2.4.3 Social Impact

Fruta Feia’s customers can also be seen as beneficiaries of its purpose even if they primarily act as clients. In fact, organization’s actions have an impact on the well being of each associate by reducing family costs. The customer base of Fruta Feia’s business model relies on those individuals who believe in its environmental mission. They are the ones that are

effectively sensible to food waste topic while being engaged in a community experience. For this reason, they can be considered as a specific and well-defined segment of the population: a Niche Market.

Data collected from the interviews shows us that associates truly enjoy Fruta Feia's products and their mission. They believe that consumers have a huge power in their hands while making decisions. *"Consuming is a political, social and ecological act"* (R. Rodrigues, associate, personal communication, December 2017).

2.5 Critical success factors

Since from the very beginning, the impact that Isabel aimed to create seemed clear and stated: a hybrid value proposition that not only would promise environmental impact but also products below the market price. However, at the time of her initial decisions, many strategic ideas came to the table.

This section is fundamental in order to get back to the previously mentioned problems that Isabel was facing during the decision point in 2013. For the sake of discussion, five critical success factors from the organization will be explained in detail.

2.5.1 The reason of choosing a Consumer Cooperative strategy

A closer look to the beginning of the project demonstrates how difficult it was for Isabel to move forward. The issue of whether to pursue a for-profit organization strategy or a NGO thinking, led her to look beyond the traditional organizational models. As a matter of fact, knowing beforehand that not-for-profit organizations were perpetually under pressure to increase their overall efficiency (Battilana & Lee, 2014) she immediately recognized that her business couldn't just survive from donations and subsidies. On the other hand, the typical for-profit organization would betray her values since the final purpose of her organization shouldn't be based on highly profitable margins but on environmental impact.

For this reason, and taking all its benefits and implications into consideration, Isabel found the perfect formula for her organization: a hybrid business model. The growing number of hybrid organizations has accompanied legislative innovations (Haigh et al., 2015) giving to executives the opportunity to choose which is the most suitable type of social enterprise. Regarding Fruta Feia, the central idea was **"The Consumer"**. They knew that the organization should reflect a change in consumer behavior, meaning that the company needed to be a sort of community experience (I. Soares, Fruta Feia's CEO personal communication,

September 2017). For this reason, the choice of using a Consumer Cooperative strategy seemed quite obvious. There are two main arguments that can be advanced to support this decision:

- a) “Create a sense of belonging”. In consumers’ cooperatives, the associate is not only a mere buyer but also an owner of the business.
- b) “Price reduction”. Provide quality goods and services at below market prices to consumers/owners rather than sell goods and services at the highest price above cost that the consumer are willing to pay (Chaptee James Petee Waebasse & Charles Gide, n.d.).

As a more extreme opinion, Enke (2017) defends in his “Consumer Cooperatives and Economic Efficiency” article, that the principal argument for joining and patronizing a Consumer Cooperative is the money that the buyer saves.

Still, during the official opening process of Fruta Feia, Isabel realized that in order to not lose the managerial control of the Cooperative, a slightly change needed to be done. By definition, a cooperative is made by co-operators, being all of them able to vote in the assembly and participate in financial decisions. However, advised by CASES – Cooperativa António Sérgio para a Economia Social – Isabel created two type of figures. These are:

- The co-operators (Fruta Feia’s staff and other trustworthy elements);
- The associates (the ones who act like simple clients, pay the administrative fee and buy the products on a weekly basis).

The latters individuals have no juridical power to make ”extreme” decisions. For this reason, with this safeguarding topic, the whole team of the Fruta Feia guarantees its independence, being free of possible acts of purchase by other entities.

2.5.2 Subscription fee

“The subscription method was planned, since the first proposal was launched. We knew that we couldn’t fail to our main beneficiaries: the farmers”.

(I. Soares, Fruta Feia’s CEO, personal communication, December 2017)

Fruta Feia is a social-driven Cooperative, where the financial sustainability is one of the major concerns of the project. Without this dimension being safeguarded, the project cannot continue its mission. However, the solution for this topic is reflected above in Isabel's statement.

Farmers are, according with the data gathered from the interviews with Fruta Feia's CEO, the main beneficiaries of the project. It was settled down, since the beginning, that the strategy pursued by the Cooperative would help national producers by selling their "leftovers". For this reason, a strong commitment needed to be ensured since it was crucial for Fruta Feia not to have a highly volatile weekly demand. In practical terms, the organization wanted to make sure that on average, the amount of kg's demanded by Fruta Feia would be ceaseless, in order to guarantee their financial sustainability and avoid mission drift.

"If our main goal is fighting against farmer's waste, I can't give higher expectations and then not comply them."

(I. Soares, Fruta Feia's CEO, personal communication, December 2017)

Concluding, the revenue stream adopted by the Cooperative that can guarantee its financial sustainability is **the subscription/membership fee**. This method allows Fruta Feia to build long-term and profitable relationships with its customers and producers. Consumers are partners of the project and understand in a transparent way that their economic effort and commitment is channelled to the main aim of the project: avoiding and valuing the waste from farmer's side. Moreover, scholars like Robbie Kellman Baxter defend that investing in a culture of membership has successful implications across the organization. More than a pricing structure is a business' mindset (Baxter, 2016).

On the basis of the evidence currently available, it seems fair to suggest that the most popular digital tactics are online communities and subscriptions (eg: Spotify and Netflix), concluding that Fruta Feia is walking side by side with innovation.

2.5.3 Costs strategy

The data gathered from the organization suggest that the Cooperative uses a *pull* system in order to ensure that farmers' supply matches associates' demand. Moreover, the optimization of van dispatches can also be seen as a strategy to avoid wasting time and unnecessary interruptions. Each farmer can not be located more than 70 km away from delivery points,

ensuring an efficient process flow of no more than 180 km of path per day (I. Soares, Fruta Feia’s CEO, personal communication, December 2017).

Last but not the least, the concern about organization’s costs can also be analysed as a successful strategy. Unnecessary costs were cut, since they weren’t adding any value to the organization. For this reason, Fruta Feia presents a business model with no storage costs and no rents resulting on 80% of the fixed costs being wages (See Table 3).

Table 3: Fruta Feia’s Cost Structure

Cost Type	Cost Driver	Cost
Variable Costs	Transport	6%
	Fruits and Vegetables	94%
Total Variable Costs		52%
Fixed Costs	Salaries	80%
	Services	7%
	Webpage	1%
	Other fixed costs	2%
	Depreciation	10%
Total Fixed Costs		48%

2.5.4 “My personal impact”

By creating online awareness and a personal account the Cooperative is able to provide a **hedonic experience** that not only brings social but also environmental value to the associate.

As mentioned before, Fruta Feia website disposes a personal online area that shows how much food waste was avoided through customers’ contribution. Thus, there is a clear and direct information about each individual ecological footprint. In addition to that, all members can evaluate each product that was delivered on the previous week regarding quality and quantity.

“Through the website I can easily change the size of my box or even eventually... cancel it. This method is also a good example of an active, democratic and transparent participation. As a community, we can all vote in our favorite products and assess their quality”.

(R.Rodrigues, associate, personal communication, December 2017)

Producers of Fruta Feia are also displayed on an infographic map with detailed information about their story, products and location. This kind of data, makes Fruta Feia believe that a **community engagement** is being created between associates and beneficiaries. Appendix 2 shows an example of a customer personal account.

The data yielded by this managerial case study also provides strong evidence that Fruta Feia's website represents a successful channel for the organization. It was through this platform that consumers became aware of food waste problem, namely in Portugal. By facing this environmental information, these individuals started adopting an ecologically responsible purchase leading to a pro-environmental consumer behaviour.

2.5.5 “Trade-off” concept

Due to the fact of an increasing number of delivered boxes per location, Fruta Feia realized that an urgent help would be required in order to manage each associate's box. For this reason, more than 40 volunteers are working once per week helping the project in terms of designing and packing. Each time they help, these individuals earn a free box, which makes Fruta Feia believe that the concept of volunteer seems probably abusive and inappropriate.

The same line of reasoning is applied to those associations that are available one afternoon per week. More than a physical offer, Fruta Feia is trying to bring more awareness to these locations. Catarina Querido, CEO and Founder of Anjos 70 – one of Fruta Feia's delegations – assumes that it's still not possible to measure the real impact of having this partnership. However, she also recognizes that it brings a lot of new people to the association, namely families and older clients, which are not their typical target. Regarding the offered box, Catarina pinpointed that all the products are being used for their community dinners or weekly events (C. Querido, partner, personal communication, December 2017)

To conclude, there seem to be some compelling reasons to argue that the way activities are organized and how stakeholders are engaged provide win-win situations (Habip et al., 2011).

2.6 Organizational Problems

2.6.1 Avoiding waste or creating a new cycle of misbehaviors?

Customer loyalty can be hard to achieve. It represents an important basis for developing a sustainable competitive advantage (Sciences, 2015) within a global market where new companies are entering everyday.

Regarding Fruta Feia's case, this managerial strategy proved to be quite challenging in an initial phase. In fact, the Cooperative realized that some of its clients were not truly committed to the cause, by not showing up on their delivery day. This behavior was not only representing a loss (in terms of organization's revenues) but also a new waste cycle. By other words, the measure "purchase in sequence", defended by some scholars (Kahn, Kalwani, and Morison, 1986) was compromised. Thence, new strategy lines were drawn in order to ensure that both cognitive and affective motivations were fulfilled.

Thanks to the green marketing strategy showed before, Isabel and her partners guaranteed the customer loyalty from the majority target. Although, for those who see Fruta Feia as a question of price reduction, more stricter rules had to be implemented. As it was mentioned before, by default, each associate has a box waiting for him that can be canceled until 5 days before the delivery. If the associate doesn't send any notification through the platform, Fruta Feia assumes that the future transaction is going to be made.

Since it not only represents a cost but also a commitment with the farmer, if the box is not sold at all, the associate is obligated to pay it during the following week in order to not compromise Fruta Feia's purpose and its Lean Thinking strategy. Moreover, these "leftovers" are posteriorly donated to Re-food NGO that fights against household food waste, by redistributing the surplus to those who are in precarious situations. "Re-food model works as a practical tool to eliminate food waste and hunger in local communities" ("Refood | How it works," n.d.).

2.6.2 Expansion

The first delivery point was launched in November 2013 at Intendente in Lisbon, followed by a second one on April 2014 and a third one in Parede one year later. Nowadays, the organization counts with nine delivery points, three of them located in the north of the country (Gaia, Porto and Matosinhos) and the newest one in the south side, Almada. The success of the national expansion made the team believe that one of the first organization's goal was to replicate this alternative consumption model in other places through local delivery points. Although, by now, the waiting list of associates has already raised to more than 7000 applications, causing a logistics problem. New associations and staff have to be found in order to satisfy this demand.

3 LITERATURE REVIEW

This chapter aims to present a theoretical framework on the topics related to the case study purpose and the three main research questions. The topics under scrutiny were collected from different academic journals or are supported by previous studies leading to an empiric summary present in this section.

3.1 Hybrid Organizations and Social Enterprises

The term “hybrid organization” reflects those enterprises that blend traditional for-profit practices with traditional non-profit ones (Haigh et al., 2015). Therefore, hybrid organizations design their business models based on a particular social or environmental issue. Moreover, by definition, hybrid organizations are often build to serve markets that are traditionally underserved by mainstream firms or governments, since they only tend to achieve the majority (Haigh et al., 2015).

Further literature shows that hybrid organizations are ideally connected with the term “social enterprise” (Battilana & Lee, 2014) because it combines the charity and business forms at their core. Having adopted several different definitions during the last few years, the topic has been seen within academia as a huge “umbrella” with ambiguous boundaries and wide scope (Hirsch & Levin, 1999).

The main goal of social entrepreneurs is thus to create a societal value (impact ventures) that tend to have three main characteristics: Spillovers that are Important but Neglected. These are what we call “SIN problems” being related with situations that are not addressed by governments, markets or civil society. Therefore, when a solution is proven more effective and efficient than the established ones, we have a social innovation (Santos, 2012).

3.2 The concept of Business Model

For the purpose of this research a primarily and clear definition regarding the nature of a business model needs to be done. The topic has been receiving substantial attention from scholars since 1995, achieving a total of 1777 articles published in academic journals. (Zott, Amit, & Massa, 2011). However, it seems that these authors do not agree with each other revealing the complex and multi-disciplinary theory about the term. For this reason, in this case study, the term Business Model that will be based on the following definition:

“A business model describes the rationale of how an organization creates, delivers, and captures value. It’s like a blueprint for a strategy to be implemented through organizational structures, processes and systems.”

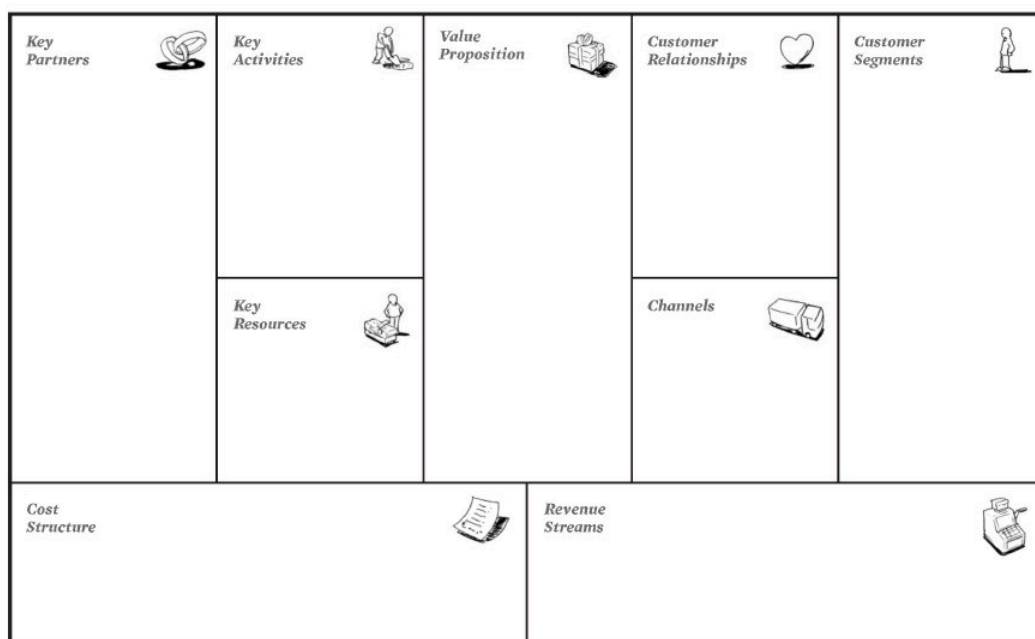
(Osterwalder & Pigneur, 2010).

Furthermore, we can enhance that a business model needs to be simple, relevant and intuitively understandable which can makes us conclude that a visual framework offers a better understanding towards this concept: The Business Model Canvas (Osterwalder & Pigneur, 2010) – highlighted through the next section.

3.2.1 Business Model Canvas – a tool for describing, analyzing and designing ideas

Osterwalder & Pigneur, 2010, describe in their book “Business Model Generation”, a new visual strategy for entrepreneurs and visionaries that covers the main areas of a business: customers, offer, infrastructure and financial viability. The concept presupposes a model divided into nine basic building blocks that shows the logic of how a company can be sustainable and creative. Figure 4 below shows an example of a Business Model Canvas Framework.

Figure 4: Business Model Canvas (Osterwalder & Pigneur, 2010)



3.2.1.1 Customer Segments

“The customer segments building block defines the different groups of people or organizations that an enterprise aims to reach and serve” (Osterwalder & Pigneur, 2010)

On marketing field, there are many analytic methods to build market segmentation. The demographic factor is one of the most traditional ways to do it. However, newer approaches are being taking into consideration as: common behaviors, common needs, common motivations or other patterns of usage and preferences. According to “Business Model Generation” definition, there are five different types of customer segments - Mass Market; Segmented; Diversified; Multi-sided platforms and Niche Market.

3.2.1.2 Value Proposition

“The Value proposition is the reason why customers turn to one company over another” (Osterwalder & Pigneur, 2010).

A value proposition is not about features or offerings but about the customers’ perception in terms of their needs and wants (Barnes, Blake, & Pinder, 2009). Hence, customers assess a certain venture’s value proposition based on the following formula: perceived value = perceived benefits minus perceived costs. (Carvalho, Azevedo, Santos, & Cotter Salvado, n.d.)

Some organizations can be seen as innovative or as a disruptive offer to the market. They satisfy an entirely new set of needs that customers previously didn't perceive because there was no similar offering (Osterwalder & Pigneur, 2010).

3.2.1.3 Channels

This building block defines how an organization communicates with and provides its Value Proposition to the chosen customer segment. In fact, channels play a huge role in customer experience strategy being categorized as marketing, sales or distribution. They can be owned by the company, shared by partners or a mix of both (Osterwalder & Pigneur, 2010). Owned Channels can be direct, such as in-house sales force or websites, or they can be indirect, like retail stores. Both can have high margins but also high costs. Regarding partner ones, they are

always indirect leading to lower margins but also possible benefits from partner strengths.

In addition to that, the authors of this framework defend that each channel can be associate with five different phases: awareness, evaluation, purchase, delivery and after sales. Some of them are directly connected with marketing strategy while others rely more on logistics/operations moves.

Finding the right balance between them, can guarantee a better customer experience and a long-term financial sustainability.

3.2.1.4 Customer Relationships

The central issue addressed in this building block is the relationship between the company and its customers who can deeply influence the overall customer experience. It can range from personal to automatic. Academic theory suggests that there are six types of customer relationships: Personal Assistance, Dedicated Personal Assistance, Self-Service, Automated Services, Communities and Co-Creation (Osterwalder & Pigneur, 2010).

3.2.1.5 Revenue Streams

Several schools of thought have emerged with a conclusion that social enterprises face the dual challenge of achieving mission-related goals while maintaining a healthy financial condition that ensures organization's survival (Carvalho et al., n.d.). As a matter of fact, that is the key feature that differentiates impact ventures from charity models. There needs to be an effective revenue strategy for sustaining its impact over time.

A business model can involve two different types of Revenue Streams:

- Transaction revenues: resulting from customer payments;
- Recurring revenues: resulting from on-going payments that usually occur on a continuing basis as subscription fees.

(Osterwalder & Pigneur, 2010)

Research indicates that are several ways to generate revenue streams. Although, all of them are based in customers' willingness to pay and their preferences regarding the transaction method: asset sale; usage fee; subscription fees; lending, renting or leasing; licensing; brokerage fees and advertising. Hybrid organizations need to generate sufficient revenue to cover expenses and furthermore to reinvest in the scaling of the venture.

3.2.1.6 Key Resources

Key resources can be physical, financial, intellectual (brand, patents and copyrights), or human and can be owned or leased by the company or acquired from key partners (Osterwalder & Pigneur, 2010). We can assume that a model is sustainable if the resources that the organization generates are superior or equal to the resources that it consumes. Every enterprise requires human resources, particularly in creative industries. On the other hand, physical assets can be almost totally discarded if the business model in cause relies in a lean thinking strategy.

3.2.1.7 Key Activities

The same logic of Key Resources relies for this building block. Key activities are the most important actions a company must do in order to reach markets, maintain customer relationships and earn revenues (Osterwalder & Pigneur, 2010). They also must be matched with key partnerships, in order to develop a sustainable solution (Carvalho et al., n.d.) being categorized as follows: production; problem solving and platform/networking.

3.2.1.8 Key Partnerships

A strategically choice of partnerships is a key factor for social entrepreneurs' success (Carvalho et al., n.d.). They can leverage resources and activities with almost zero costs, helping the organization to achieve its social mission. Partnerships can be seen as strategic alliances between non-competitors; strategic partnerships between competitors; joint ventures to develop new businesses or buyer-supplier relationships to assure reliable supplies.

3.2.1.9 Cost Structure

This building block describes the most important costs that occur while a company is operating. Such costs can be calculated relatively easily after defining key resources, key activities, and key partnerships (Osterwalder & Pigneur, 2010).

Literature reveals that are five types of costs structure: Cost-Driven; Value-Driven; Fixed Costs; Variable Costs; Economies of Scale and Economies of Scope. For the purpose of this research, a deeper attention needs to be done regarding cost-driven theory. Cost-driven business models focus on minimizing costs while creating and maintaining the leanest possible cost structure. The term Lean Thinking, associated with Toyota Production System (TPS) and its founders – Sakichi Toyoda, Kiichiro Toyoda and Taiichi Ohno -, was originally called “just-in-time production” and reflects the following principles:

- “A culture in which everyone is dedicated to continuous improvement”;
- “Making the product flow through the system without interruptions and wasted time”;
- “A *pull* system that ensures that production is tied closely to demand, so no products are built until there is demand for them, and inputs are supplied at the appropriate time”.

(Rand Corporation, 2015)

Taking this literature into consideration, the last two ideals can be strongly correlated with cost-driven theory.

3.3 Business Model Patterns

The business model canvas and its nine building blocks are an important framework for business model innovation process since they can be seen as easy prototypes to illustrate business models alternatives. (Lüttgens & Diener, 2016). Furthermore, another efficient option for innovation is to learn from existing solutions like business model patterns (REMANE, HANELT, TESCH, & KOLBE, 2017). This last concept is an archetypal framework that describes business models with similar characteristics, similar building blocks arrangements or similar behaviours. By being aware of patterns, managers can generate a new strategy or adapt an existing one in a more systematic way (Lüttgens & Diener, 2016).

3.3.1 Unbundling

The concept of unbundled corporation relies on three fundamentally different types of businesses: Customer Relationship businesses, Product Innovation businesses, and Infrastructure businesses (Osterwalder & Pigneur, 2010). As a matter of fact, they may co-exist within a unique corporation but sometimes they are separated into different entities for a variety of reasons, namely interaction costs.

Interaction costs represent the money and time that are expended when people or companies exchange goods, services, information or ideas (Butler et al., 1997.) They cover the full range of costs involved in economic interactions through different forms as management meetings, conferences, phone conversations, sales calls, reports and memos (Hagel & Singer, 1999).

As interaction costs fall, companies will come under pressure to unbundle their core processes and executives will be forced to understand in which business they want to focus on, knowing that each one of them has different economic, competitive, and cultural imperatives (Osterwalder & Pigneur, 2010).

The role of a Customer Relationship business is to find customers and build relationships with them. Similarly, the role of a Product Innovation business is to develop new and attractive products/services while the role of an Infrastructure Business is to build and manage platforms for high-volume, repetitive operational tasks. Moreover, the two first scenarios are more capable to be used in companies who pursue economies of scope and scale while Product Innovation business will likely remain on nimble companies with a speed and creative basis (Hagel & Singer, 1999).

Concluding, interaction costs play a crucial role in market industries leading large companies with one or more core business to sell their assets or product/service lines in order to avoid conflicts or undesirable trade-offs.

3.3.2 The Long Tail

The long tail concept focuses on offering a large number of niche products with lower demand by the market (Osterwalder & Pigneur, 2010). The theory took shape in an article by Chris Anderson, editor of Wired magazine, which grew into the 2006 book *The Long Tail: Why the Future of Business Is Selling Less of More* (Gough, 2008). The author believes that consumers will migrate away from mainstream markets to long tail goods, characterized by low distribution and low production costs.

The main theoretical premise behind this theory relies on the idea that those goods that don't individually sell well enough for traditional retail or broadcast distribution will together exceed the size of the existing market (Gough, 2008).

Anderson's research focuses primarily on online industry, namely media, entertainment and music sectors. Although, scholars believe that is reasonable to assume that these recommendations can be applied to physical goods as well.

Long Tail business models require **low costs** and **strong platforms** to make **niche content** readily available to interested buyers (Osterwalder & Pigneur, 2010). The first scenario is positively correlated with Lean Thinking theory since the idea behind this pattern is try to connect supply with demand. Moreover, managers and marketers need to develop a communication strategy that shows to the ultimate client that niche products are just good as the mainstream ones ("The Long Tail | WIRED," n.d.). In fact, the real challenge of selling niche products is finding potential buyers, which made scholars believe that user ratings and **communities experience** are successful tools to avoid this problematic. Last but not the least, **revenue streams** are often characterized as subscription fees.

3.3.3 Multi-Sided Platforms

Multi-sided platforms requires two or more distinct but interdependent groups of customers, both willing to buy and sell at the prices they quote (Osterwalder & Pigneur, 2010). Any business model under this pattern share three main features:

- “The value of the platform to each group of customers increases along with the number of customers in the other interdependent groups” (Evans, 2003) – a phenomenon known as network effect which can be translated in a simple assumption: value grows as the platform matches demand from both side.
- The platform must provide a way for the customer groups to interact;
- The groups are attracted to each other (Eisenmann, Parker, & Alstyne, n.d.).

This pattern can be found in many industries, from products to services. Visa credit card, Microsoft Windows operating system, Financial Times, consoles, Google, Facebook are just few examples of successful multi-sided platforms. For instance, video game developers will only create games for platforms that have a huge number of players. In turn, players favour platforms with a great variety of games (Eisenmann et al., n.d.), even if this decision represents a higher cost. Another good example is Metro, the daily newspaper that immediately gain a large group of customers since it was distributed free of charge in train, metro and bus stations. Afterwards, this action allowed the company to attract advertisers and rapidly become profitable (Osterwalder & Pigneur, 2010). This “subsidy” side is a typically characteristic of multi-sided platforms since pricing the platform can be really demanded (Eisenmann et al., n.d.). Nevertheless, literature shows consensus that unlike “traditional system”, in this case both groups can collect revenue from each other.

3.3.4 Free

Receiving something for free has always be seen an attractive value proposition (Osterwalder & Pigneur, 2010). Different scholars, like assistant professor Kartik Hosanagar, also defend that "the demand you get at a price of zero is many times higher than the demand you get at a very low price." For that reason, free business models describe how some organizations can earn revenues by offering free products or services to one or more group of customers (Demil & Lecocq, 2010).

Chris Anderson, author of Long-Tail Business Model pattern explains in his book “Free: The future of a Radical Price” how this concept is a successful business strategy, essential to a

company's survival. Moreover, the author argues that this pattern relies on a digital world, where marginal costs tend to be zero.

“Making money by charging nothing”: Anderson begins his theory with the Monty Python example and how they reacted to digital piracy. The British comedy group posted a Youtube announcement saying that they would stop piracy attacks by posting their clips for free. Later, the artists implore their customers – the ones who viewed the free content - to buy their official DVD.

There are several sub-models covered by this pattern such as Cross-Subsidization; Three-Party Market; Freemium and Nonmonetary Markets. The first two scenarios are basically related with a customer segment or another part of the business model who finances the non-paying customers. The term freemium, coined by Jarid Lukin, stands for business models mainly web-based, that mix free basic services with paid premium ones. Most of the users never become paying customers, but the small portion who does it, can ensure the financial sustainability of the project. Last but not the least, nonmonetary markets are connected with customers with no expectation of payment since the products and services in cause are measured as intangible.

3.3.5 Open Business Models

Open Business Models are usually used by companies who look outside their boundaries, creating and capturing value from outside partners. This strategy can be applied as an “outside-in” concept, by exploring external ideas within the firm, or “inside-out” by providing external parties with know-how and private assets (Osterwalder & Pigneur, 2010). With this framework in mind, Henry Chesbrough, father of this pattern, wrote two books where the main features are pointed out:

- **IP - Intellectual Property:** The scholar defends that a company's primarily mistake is assuming that their own Intellectual Property is not valuable to others even if it's not used but the original owner. For this reason, Chesbrough's open business model focuses on leveraging all of the IP owned by a company by licensing it, and encourages them of taking advantage of the IP of others (Chesbrough, 2006).
- **R&D – Research and Development:** Traditionally, companies develop their own internal R&D for new technologies and future products. These companies have also worked hard to hide or protect these technologies from competitors by operating as a

closed business model. However, Chesbrough advises companies to rely on both internal and external R&D for new technologies.

Concluding, there is a common belief that most of the products nowadays are too complex to be completely developed by one single company. A closer examination to the literature proves that all organizations should invest in open business models if they want to improve their performance within the industry they are playing in.

3.4 Characteristics of Business Models for Hybrid Organizations

Complementing the various literatures on organizational hybridity that were presented earlier, we will now execute an analysis of the different business models that Social Enterprises can adopt regarding the framework proposed by Santos et al., 2015. Specifically, these scholars developed a typology of hybrids based on two dimensions: “*value spillovers*” and “*transaction obstacles and the degree of overlap between clients and beneficiaries*”.

3.4.1 Dimension 1: Value spillovers

By definition, value spillovers are “the increases or decreases in value to economic agents outside a specific transaction - usually called externalities in economic language” (Santos et al., 2015). All businesses, social or commercial, generate value spillovers for society from their activities besides the central value delivered to customers. Although, while a commercial enterprise primarily focus on customer’s value and possibly ignores value spillovers, the most important focal point of a social hybrid organization is the total value created: the value created for the client plus the positive value spillovers for society and/or environment. By other words, businesses with a social purpose tend to operate in activities that go beyond the community they intend to serve.

Additionally, these externalities can be categorized as automatic or contingent. The first scenario can just happens by the fact of providing the product or service to the ultimate client while the second one requires additional effort from the part of the company such as training, awareness raising or mentoring. Regarding Fruta Feia’s case, the current data appears to be aligned with the second scenario since a change on consumer behavior had to be done. Yet, authors defend that this kind of strategy can possibly adds additional costs and complexity to the organization.

3.4.2 Dimension 2: Transaction obstacles and the degree of overlap between clients and beneficiaries

The foregoing literature implies that one definition needs to be set before an in-depth analysis:

*Clients are the ones who pay for the product or service while the term **beneficiary** is related with those who benefit from it according to the organization's social mission.*

To be truly successful, a commercial transaction needs to have beneficiaries that are willing to pay a price – for a product or service – above its cost of delivery. However, these transactions can fail if the individual is not able to pay, cannot access the offering or does not value it enough to intend to purchase it. These three problematic are seen in the academic literature as *transaction obstacles* and can be somehow easily to overcome if companies are able to lower the costs or providing novel means of access. Alternatively, hybrid organizations can play an important role on this field by creating an additional category where someone else can pay what beneficiaries can't. For instance, social enterprises can create cross-segment subsidiaries or ask for the help from external stakeholders like donors, foundations and government entities.

Yet, a critical issue can appear when the payer is not the direct beneficiary. According to Santos et., al 2015 these kind of situations lead to a more complex business model, harder to manage and scale. Hybrid organizations need to serve both groups and try to not focus more on those who are paying – the clients - rather than the ones who are benefiting from the social mission. The greater is the gap, the harder is for a social enterprise to serve both parties.

3.4.3 Four Models of Social Business Hybrids

The two types of value spillovers and the degree of overlap between clients and beneficiaries are the basis for classifying social business hybrids. By mixing them, we can draw a matrix with the four social business hybrid models that are called Market Hybrids, Blending Hybrids, Bridging Hybrids, and Coupling Hybrids. The proposed scheme is also present in the Table 4 below for a better understanding.

Table 4: A Typology of Social Business Hybrids

Dimensions	Clients = Beneficiaries	Clients \neq Beneficiaries
	MARKET HYBRID	BRIDGING HYBRID
Automatic Value Spillovers	Risk of mission drift: Low Financial Sustainability: Easy	Risk of mission drift: Intermediate Financial Sustainability: Moderately Difficult
	BLENDING HYBRID	COUPLING HYBRID
Contingent Value Spillovers	Risk of mission drift: Intermediate Financial Sustainability: Moderately Difficult	Risk of mission drift: High Financial Sustainability: Difficult

3.4.3.1 Market Hybrids

Market Hybrids are the least challenging hybrids to manage. They are close to the pure commercial models where clients are also beneficiaries for the product or service in cause. Moreover, the value spillovers occur automatically, thus requiring no additional interventions or costs.

In light of the evidence from “Making Hybrids Work” article (Santos et al., 2015) we can assume that in these situations, the more products are sold, the more societal impact is generated since it all relies in commercial activities. Consequently, this type of business is relatively unlikely to experience mission drift if the organization in cause can guarantee that focus in not only on clients with higher willingness to pay. Given their market-oriented model, Market Hybrids can achieve financial sustainability easily within a unidirectional organizational structure centered on commercial activities.

3.4.3.2 Blending Hybrids

Like Market Hybrids, Blending Hybrids are organizations that serve paying clients who are also beneficiaries of their final purpose. However, this type of organizations requires changes in behavior in order to achieve an impact (as mentioned before in contingent value spillover dimension). On the contrary of Market Hybrids, Blending models face a higher risk of mission drift due to those additional activities that are required to create impact and do not

contribute for effective revenues. As a result, this literature provides confirmatory evidence that financial sustainability is harder to achieve. Blending Hybrids are constantly walking in a slippery tight rope, where the perfect balance needs to be achieved between profitability and social impact. In terms of governance, managers of Blending Hybrids should focus even more on monitoring the profile of its clients since their business model depends on them.

3.4.3.3 Bridging Hybrids

By contrast of the others two examples, Bridging Hybrids models serve clients and beneficiaries who are from different groups, with different needs and motivations. Although, it's important to not prioritize the needs of the commercial clients over beneficiaries.

Regarding financial sustainability, the most appropriate answer is to employ philanthropic funds or cross-segment subsidies where one group of consumers is paying more to subsidize the other one.

The Portuguese social enterprise “Cozinha com Alma” is an example of a cross-segment subsidy. The organization works as a take-away of top quality food, where clients can buy meals by general public prices. Afterwards, the profits from these sales are used to subsidise the meal prices of low-middle class families that have fallen into poverty due to the economic crisis (Carvalho et al., n.d.).

3.4.3.4 Coupling Hybrids

Coupling Hybrids are the most complex models to manage since they not only serve two different groups (clients and beneficiaries) but also their social impact depends on additional interventions besides their core commercial activity. In this specific situation, the risk of mission drift is higher than the others because the main focus can't only fall in clients' interests. Moreover, those additional interventions/costs can't be discarded or reduced since they contribute to the financial sustainability of the organization.

For a better understanding of this type of Hybrid Business Model, Santos et al., (2015), describes in his article an example of a social enterprise under these aspects. Work Integration Social Enterprises (WISEs) are organizations that help long-term unemployed people by hiring them for two years with the purpose of producing goods and services to the market. In this case, the company serve both its beneficiaries (the unemployed individuals) and its paying clients (who require a product or service with competitive levels of quality and price).

4 TEACHING NOTE

4.1 Synopsis

Fruta Feia is a Portuguese Cooperative founded in 2013 which fights against a market inefficiency regarding fruits and vegetables waste. In practical terms, the organization channels the part of the wasted production to clients who do not judge the food by its appearance. By creating a movement that changed consumption patterns, the case study of this Cooperative describes the successful story of a hybrid organization that was able to address the main challenge of these types of enterprises: achieve financial sustainability while creating social and environmental impact.

4.2 Target Group

The aim of this case study is to be used as a teaching tool for class discussions in Undergraduate or Master level courses, such as Social Innovation and Social Entrepreneurship, Operations Management, Business Ethics or other strategic related courses.

4.3 Learning objectives

The objective of this case study is to give students a first contact with the world of social entrepreneurship, by presenting its challenges and opportunities. More specifically, the main goal is to move beyond general recommendations about managing hybrids and understand which are the best strategies to achieve both economical and environmental impact.

The key issues highlighted in this thesis are related with the tensions that may arise in the beginning of social enterprises' pathway when building a financial sustainable strategy. For this reason, all the case study was designed in order to students be able to recognize the critical success factors that led Fruta Feia to a long-term sustainable organization.

How was it possible to transform a social problem in a business opportunity with positive social/environmental impact?

All things considered, by reading the case, students should be capable to identify:

- Social enterprises' challenges and opportunities;
- Fruta Feia's mission and the characteristics of the problem that the Cooperative is addressing;

- The typology of hybrid model that best applies given the characteristics of the organization;
- The innovative revenue stream that best suits the previously defined business model and that guarantees the Cooperative's financial sustainability;
- The concepts of Business Model; Business Model Canvas and Business Model patterns;
- The different impacts that Fruta Feia generates regarding each stakeholder.

4.4 Assignment Questions

The assignment questions are meant to encourage students to implement their managerial knowledge combined with the data provided from the case study and the academic theory represented in the literature review. The questions cover the learning objectives of the case. While the questions offer a variety of possible answers, students should be able to identify possible solutions and arguments to support them.

- **Assignment 1:** Which type of hybrid business model best applies to Fruta Feia?
- **Assignment 2:** What is the optimal pattern for the chosen hybrid business model?
- **Assignment 3:** Which strategy did Fruta Feia use in order to guarantee its financial sustainability?

4.4.1 Teaching Plan

The purpose of this section is to give the instructor an idea of how this case study should be taught in 90 minutes. The case can be prepared for various classes and it should be distributed before the class lecture, along with the literature review and the assignment questions. This will allow the students to read and prepare in order to create a productive discussion in class. The instructor should begin by briefly underline the main characteristics of Fruta Feia in order to give an overall overview of the organization.

Regarding the first question, the discussion is mainly focused on the matching between the literature review and the characteristics of Fruta Feia's hybrid business model. The last two questions should cover the business model canvas of Fruta Feia with particular relevance for the proposed revenue stream that the Cooperative is using to achieve its financial sustainability. The final outcome should be an all-around managerial suggestion that other

social enterprises can apply in the future.

4.4.2 Assignment 1: Which type of hybrid business model best applies to Fruta Feia?

The data exposed along the case study and literature review must be used as evidence to support the final argument. For this particular question, the instructor can advise the students to focus on the matrix exposed during the literature review (See Table 4), for a better comprehension of the content. Therefore, a briefly overview regarding each type of hybrid business models can be done.

According with the data gathered from the case study, students should be immediately able to recognize that Fruta Feia's value spillovers are contingent since a change on consumer behaviour had to be done. As previously mentioned, by definition, this theory defends that an additional effort is required such as training, **awareness raising** or mentoring (Santos et al., 2015).

On these grounds, students can argue that Fruta Feia can only be suitable with two types of Hybrid Business Models: either Blending or Coupling. In order to solve this problem, the degree of overlap between clients and beneficiaries needs to be clarified. However, a conflicting viewpoint can emerge. Students should consider that Fruta Feia has two types of beneficiaries:

- Associates (which are Cooperative's clients);
- Producers (only suppliers of Fruta Feia).

With this mind, the class should be oriented for a deeper case analysis, realizing that they are facing a very complex business model. A closer look at the data indicates that in this case, even if associates have benefits with Fruta Feia's value proposition, suppliers are the ones who are considered as **main beneficiaries**.

At this stage, the instructor should help the students recognizing the overlapped elements between each one of these hybrid business models types. By definition, Fruta Feia seems to be aligned with Blending typology if we consider the premise: associates=beneficiaries. Yet, if students rely their argument on the truly **main beneficiaries**, the assumption proposed before needs to be departed.

Nevertheless, from the examples given in literature, the instructor can indicate which model best applies to Fruta Feia: **Coupling Hybrids**. By definition, "Coupling Hybrids have clients and beneficiaries that are different but most value spillovers do not happen automatically"

(Santos et al., 2015). In fact, it seems to make more sense to define the business model based on the main beneficiaries rather than on the secondary ones.

For the sake of the discussion, the instructor can also adopt a role-play method, dividing the class into two different groups, each one of them supporting different theories. With this strategy, students may bring up factors that had not been previously considered (hence the importance of the role playing exercise).

Concluding, the final goal is to make students understand that none definition is perfect when matching reality. **The key topic relies on financial sustainability dimension, which in both cases are difficult to achieve.**

4.4.3 Assignment 2: What is the optimal pattern for the chosen hybrid business model?

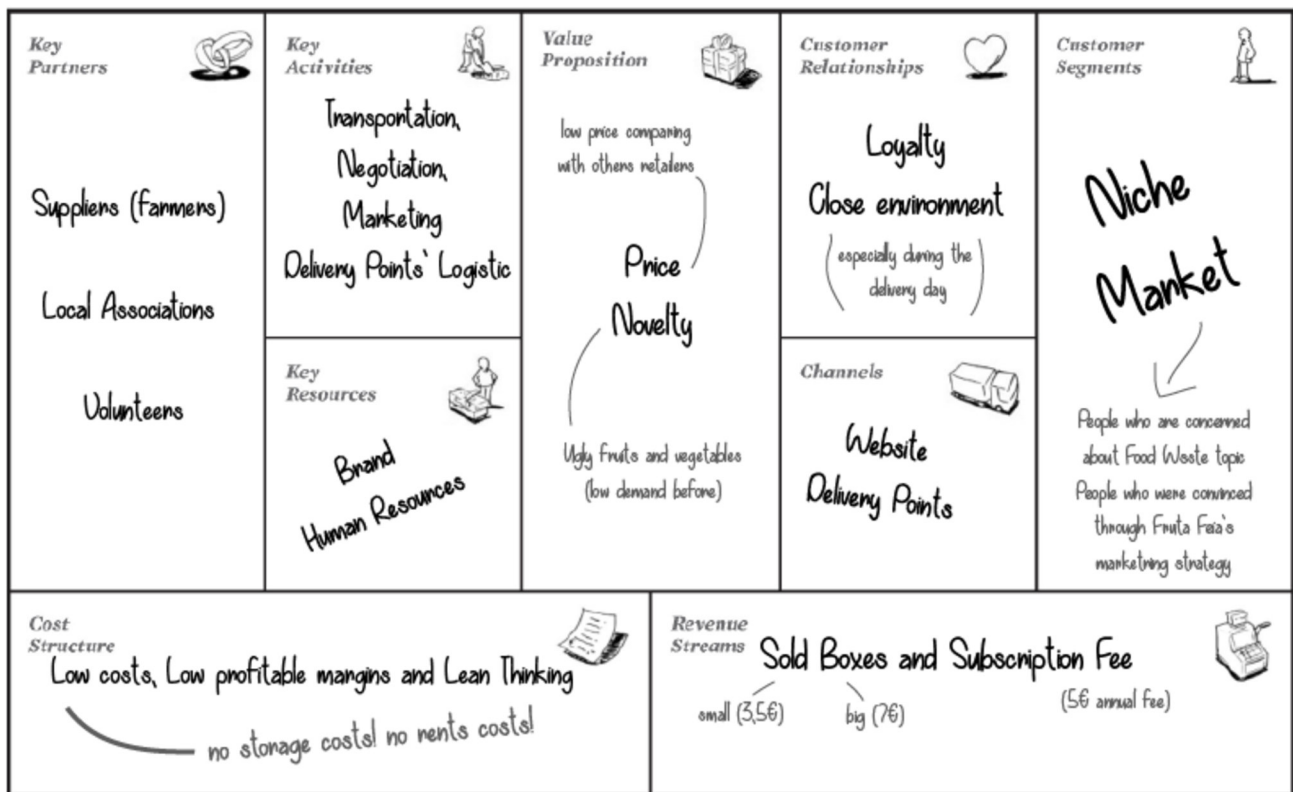
Once again, students need to consider both information present on literature review and the case study. Primarily, the class should be able to identify the nine building blocks that constitute Fruta Feia's business model canvas. With this reasoning, it is easier to come up with a solid argument about which pattern they should adopt.

- **Customer Segment:** Niche Market;
- **Value Proposition:** Price and Novelty;
- **Channels:** Website and Delivery Points;
- **Customer relationships:** Loyalty and close environment: Fruta Feia stimulates a close-knit environment between all the stakeholders during the delivery days promoting a feeling of belonging, and consequently customer loyalty. Additionally, given the data gathered from Fruta Feia's case study, the Cooperative relies its strategy mainly on community thinking. It facilitates connections between members, especially via online channels, allowing users to give feedback and share ideas;
- **Revenue stream:** Sold Boxes and Subscription Fee;
- **Key Resources:** Brand and Human Resources;
- **Key Activities:** Transportation, Negotiation, Marketing and Delivery Points' Logistic;
- **Key Partnerships:** Suppliers (farmers), Local Associations and Volunteers;
- **Cost Structure:** Low costs, low profitable margins and lean thinking: The Cooperative's main variable costs are the costs directly related to the acquisition and transportation of fruits and vegetables. When it comes to fixed costs, there are the salaries, website

expenses, and other services.

With these premises, students should be able to draw Fruta Feia’s business model canvas like the one represented below (See Figure 5).

Figure 5: Fruta Feia’s Business Model Canvas



They are also now able to classify Fruta Feia as an organization who works under the Long-Tail Pattern strategies. There are many arguments that can be advanced to support this argument, being all of them correlated with the literature exposed.

Long Tail business models require **low costs** and **strong platforms** to make **niche content** readily available to interested buyers (Osterwalder & Pigneur, 2010). The first scenario is positively correlated with Lean Thinking theory since the idea behind it is try to connect supply with demand: “Customer is the maestro of the company”. The organization also presents a business model with zero waste and low inventory and fixed costs.

Additionally, scholars defend that an effective communication strategy needs to be ensured in order to convince the ultimate client that niche products are just good as the mainstream ones (“The Long Tail | WIRED,” n.d.). This principle can be directly connected with the contingent value spillovers mentioned before.

The literature also shows consensus that using ratings and **communities experience** helps companies to find potential buyers for niche products alongside with revenue streams characterized as **subscription fees**.

Last but not least, although Long Tail Pattern is focused on music industry, media content and information goods, for the purpose of this research, it's reasonable to assume that these recommendations can be applied to physical goods as well. Fruta Feia is a clearly example of selling less popular goods from the mainstream market with lower demand.

4.4.4 Assignment 3: Which strategy did Fruta Feia use in order to guarantee its financial sustainability?

To conclude this class discussion, the instructor should do a recap regarding the critical question that organizational scholars are facing nowadays: how can hybrid organizations manage their multiple forms of sustainability? (Battilana & Lee, 2014). Additionally, it is also important to remember, that due to assignment 1, students concluded that Fruta Feia is a very complex business model where financial sustainability is hard to achieve and the risk of mission drift is high.

Bearing all this information in mind, students should base their argument in chapter 2.5 - Critical success factors, namely **2.5.2 – Subscription Fee**.

Here, the data provides confirmatory evidence that this revenue stream safeguarded the financial sustainability of the project while taking in consideration their main beneficiaries. By Isabel's words, "the subscription method was planned, since the first proposal was launched since they didn't want to fail with farmers" (I. Soares, Fruta Feia's CEO, personal communication, December 2017). It was crucial for Fruta Feia not to have a highly volatile weekly demand. In practical terms, the organization wanted to make sure that on average, the amount of kg's demanded by Fruta Feia would be ceaseless, in order to guarantee their financial sustainability. This also explains the additional positive effect of helping avoiding mission drift since Fruta Feia has a strong market discipline. The way that the Cooperative is build in terms of legislation and revenue streams guarantees that financial goals are not going to overwhelm its social mandate.

Nowadays, this method allows Fruta Feia to build long-term and profitable relationships with its customers and producers. Consumers are partners of the project and understand in a transparent way that their economic effort and commitment is channelled to the main aim of the project: avoiding and valuing the waste from farmer's side.

Lastly, as an end note, the instructor should remind students that an effective revenue stream is not necessarily the one who generates more money, but rather one that is able to:

- Guarantee the financial sustainability of the organization on a long-term basis.
- Avoid the risk of mission drift.

5 CONCLUSIONS & RECOMMENDATIONS

The main outcome of this dissertation is the set of successful strategies that Fruta Feia pursued in order to reach financial sustainability, avoid mission drift and achieve a significant economic and ecological impact.

For this reason, I would like to outline some interesting findings that can be condensed into an effective lesson for other social enterprises.

After examining the potentials and limitations of hybrid organisations, it was interesting to understand how an innovative revenue stream, namely subscription method, can guarantee not only the long-term financial sustainability, but also the possibility to ensure that the main beneficiaries are not being jeopardised. As a matter of fact, a number of social enterprises have been criticised for prioritising financial gains at the expense of their social mission (Fowler, 2000; Strom, 2010; Weisbrod, 2004).

Moreover, I learned how the organisational structure can determine the success of a starting business. This case also demonstrates how crucial it is to perform an in-depth study of the legislation, so that ownership and control problems can be avoided as the enterprise moves through its lifecycle.

Nevertheless, I consider that there are two potential aspects that could be improved in Fruta Feia's Business Model. The first idea relies on recurring payments, related to the boxes that are sold to the associates. Currently, all the business transactions are made in person and in cash. However, this payment format does not contemplate the existence of disloyal consumers, which, by not collecting their reservation, harm the financial sustainability of the company and contribute to the original food waste problem that the organization is trying to mitigate. A possible fix for this source of revenue volatility would be the introduction of a direct debit payment method. A **financial incentive** to early adopters could help overcome the initial scepticism that this method may encounter. Moreover, in order to not deviate from the main purpose of the organization, those missed pick-ups would still be billed and donated to ReFood NGO or other social entities.

On the other hand, as proposed by the scholars Batillana & Dorado (2010), Fruta Feia's volunteers should be "hired" under an apprenticeship contract, free of biases. By definition, this strategy relies on a tabula rasa hiring approach, meaning that apprentices are assumed to have no prior knowledge of the product and thus have to receive training before starting to execute their role. This would ensure that the brand identity is accurately represented by each

employee. This suggestion arose from personal observation of the opening of a new delivery point. On that day, a host of volunteers were explaining Fruta Feia's business model to new customers as well as passers-by. However, due to a lack of training, they did not cover some of the fundamental aspects of the organization, thus not revealing the true potential and intent of the idea, or worse, misinforming new customers. By inviting volunteers (and potentially even new customers) to a short introductory session on the business and its idea, the brand image could be disseminated in a more consistent manner.

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7 APPENDIXES

7.1 Appendix I – Existing Initiatives

Intermarché campaign – Inglorious Fruits and Vegetables Campaign
(“Intermarché - Inglorious fruits & vegetable,” n.d.)



Idea: To fight against food waste, Intermarché, the 3rd largest supermarkets chain in France, decided to sell (30% cheaper) the non-calibrated and imperfect fruits and vegetables: “the inglorious fruits and vegetables”.

Implementation: Intermarché launched a global campaign to rehabilitate and glorify them, with print, billboards, TV, radio, PR, and Intermarché’s catalogues and social media platforms. The stores were rebranded “inglorious” and ready-made meals were distributed in order to convince the clients that those products were also tasty and healthy.

Kromkommer

(“Kromkommer – English,” n.d.)

Kromkommer is a Dutch company founded in 2014 with the mission to save all the fruits and

vegetables that are wasted regarding their appearance or overproduction.

The value proposition of the project relies in a soup line, mainly veggie, disposable in more than 50 stores throughout the country.



7.2 Appendix II - Personal Account from Fruta Feia's website

(Only available in Portuguese)

Cesta pequena		Cesta grande	
Maçã reineta	Célia Sousa	Maçã reineta	Célia Sousa
Limão	Lucília Domingos	Limão	Lucília Domingos
Tangerina	Fernanda e Manuel Lourenço - Quinta do Laranjeiras	Tangerina	Fernanda e Manuel Lourenço - Quinta do Laranjeiras
Batata	Célia Barbosa	Batata	Célia Barbosa
Cenoura	Célia Barbosa	Cenoura	Célia Barbosa
Couve portuguesa	José Manuel Cardoso dos Santos	Couve portuguesa	José Manuel Cardoso dos Santos
Abóbora	Vânia e Mário Santos - Hortadoce	Abóbora	Vânia e Mário Santos - Hortadoce
		Nabo	Célia Barbosa

RECEITAS COM PRODUTOS DA CESTA

O MEU PAINEL

14 Kg de desperdício evitado

Número de associado

5441

A minha delegação

Delegação de Almada - Academia Almadense

Alterar

O meu estado

Com entregas activas

Alterar

A minha cesta

Cesta pequena

Alterar

ABERTA A CANCELAMENTOS

DATA DE ENTREGA

Terça, 19 Dezembro, 2017 - 17:00 às 21:00

DATA LIMITE DE CANCELAMENTO

Sexta, 15 Dezembro, 2017 - 23:45

NÃO QUERO RECOLHER A CESTA DESTA ENTREGA

QUERO MUDAR O TAMANHO DA CESTA

Produtos mais requisitados pelos consumidores



Qualidade dos produtos



CLASSIFIQUE A CESTA ANTERIOR

Avalie os produtos da sua cesta para entendermos melhor as suas preferências!

Nota: Os + e - indicam se quer receber o produto mais ou menos vezes nas futuras cestas. As frutinhas permitem classificar a qualidade do produto desse agricultor, sendo que quantas mais as frutinhas seleccionadas maior a qualidade atribuída ao produto.

Cesta Grande de 12 de Dezembro

Laranja

- +

Luís Miguel Jorge



Limão

- +

Lucília Domingos



Maçã reineta

- +

Célia Sousa



7.3 Appendix III - Script of the interview to Isabel Soares, CEO and Founder of Fruta Feia

September 2017

Q1: Regarding what I read in public data, at the time you had the idea of creating Fruta Feia's project, you were living in Barcelona. How did you come up with it?

Well, at that time, in 2012, I was living in Barcelona, working as an Environmental Engineer. Despite a solid career progress I was feeling unmotivated day-by-day, considering that my job lacked impact and significance to the world and special to myself. Near to Christmas, before I arrive in Lisbon in order to visit my family, I saw a documentary about food waste, namely agriculture industry and consumer behaviour regarding aesthetics reasons. The information present on it showed me that about 30% of what is produced by farmers is not translated into final revenues due to those aesthetics reasons and European Union quality standards. After some research, I actually came up with some numbers... We are talking about more than 1.7 million tons per year in Portugal (PERDA, 2002). And for instance... this waste has not only ethical but also environmental consequences since it requires the unnecessary use of resources for its production (like soil, energy and water).

I was super outraged! When I finally arrived in Portugal I had a conversation with one of my uncles, who works as an apple producer. I asked him if all these metrics and rules were true and how much money he could lose with them. Guess what? The struggle was real.

For this reason, I realized that I wanted to find a way to channel all this waste into something valuable and edible. In managerial terms, I was trying to find a way to give a second life to those “ugly fruits and vegetables” that are despised not only by supermarkets but mainly by their potential final consumers. I was focused on trying to fight a market inefficiency but especially on building a movement that could change consumption patterns.

So... As you can imagine... A huge brainstorming started in my head! Should I open a shop? Or just sell the products in a van? How could I build loyal partnerships among those producers? And worst of all? Where could I find money to do an initial investment? The only thing I knew for sure was: I wanted to come back to Portugal for personal reasons.

Back to Barcelona, already in 2013, I read a newspaper that gave me the final solution: **“Ideias de Origem Portuguesa!”** – A Calouste Gulbenkian Foundation's initiative in the area of social entrepreneurship. It's basically a challenge to all the Portuguese community

who live abroad but have creative ideas to improve their own country. The final purpose of the contest is to find a way to promote projects in the areas of Environment and Sustainability, Social Inclusion, Cultural Dialogue and Aging.

On the same year, I won the second prize of this context, which was 20.000 euros, giving me the possibility to return and start implementing the idea.

Q2: How did you get the name “Fruta Feia” (Ugly Fruit)?

I think the name was quite easy for me. We are working on this “ugly” concept from consumers’ perspectives so either the name or the slogan: “beautiful people eat ugly fruit” seemed almost intuitive since the very first beginning. It was obvious that Fruta Feia needed to appeal to this more “emotional and aesthetic” side of consumers.

Q3: Let’s jump to your decision regarding business model strategy... Why a Cooperative organization?

When I started thinking about which strategy should I pursue, a lot of ideas came to mind. The idea of building a typical for-profit organization was against my own values since I didn’t want to take any advantage of Portuguese farmers who were facing a real problem in their own business. It was simply not ethical for me. On the other hand, building an NGO that needs external help such as public or philanthropic funding could rapidly compromise my business and my commitment to our stakeholders. I wanted to make sure that my project could be sustainable in the long term.

For that reason, my reasoning started with Fruta Feia’s central idea: **The Consumer**. I knew that Fruta Feia should reflect a change in consumer behavior, meaning that the organization needed to be a sort of community experience. For this reason, the choice of using a Cooperative strategy seemed quite obvious to me. I wanted to create a sense of belonging where consumers are able to say “enough!” to this food waste situation. Moreover, within Cooperatives, the associate is not only a mere buyer but also an owner of the business.

7.4 Appendix IV - Script of the interview to Isabel Soares, CEO and Founder of Fruta Feia and Mia, Fruta Feia's employee

October 2017, "A day working with Fruta Feia"

On 10th of October, I met Isabel and Mia in their garage in Martim Moniz. The Cooperative pays a monthly fee to two different garages in Lisbon, in order to keep their vans in safety. One of these places also works as an official car's factory, which ensures the technical maintenance of the vehicles. The day started around 9 am with the purpose of understanding how is a regular working day in the organization.

Q1: In terms of logistics, how do you organize a day like today?

As you can see in *this paper*, we have all the week already aligned regarding delivery points, products, staff, week days and farmers. In fact, since we give the option to our associates to cancel the box until 5 days before the final delivery, we have a proper estimate of how much kgs of each product we need to pick up. Today, we are going to delivery apples, lemons, carrots, sweet potatoes, coli flours and pears to our associates. Since we have two delivery points today - Anjos and Telheiras – both vans are working at same time, facilitating the process of picking up each product. In fact, we have already divided the work among us, so our van will only be in charge of apples and lemons. In the end of the morning, we will meet the others, in Paulo Dias's warehouse, our "godfather" place, in order to set up all the amount of fruits and vegetables for each delivery point.

By the way, each farmer can not be located more than 70 km away from delivery points, ensuring an efficient process flow of no more than 180 km of path per day.

Q2: Do associates already know which kind of products will be offered in their boxes?

Yes! In their personal area they can check what they are going to receive per weak. They also have the possibility to check where are these products come from, regarding their official producers.

Q3: Why did you call Paulo Dias farmer as your godfather?

Right... funny story! Paulo Dias was probably one of our first partnerships within the organization. As you know, we don't have any storage or rents costs. We do not pay our delivery points or either warehouses. The day we pick up the products is the same day as we

delivery them. For this reason, and I can show you later, 80% of Fruta Feia's fixed costs are wages. We are really proud of this number in fact! We try to keep this "lean concept" the strongest as possible.

But: this is where Paulo enters into our lives! He is a truly key partner for Fruta Feia since he allowed us to store some products or boxes in his warehouse from one day to another. The reason why we need to do this is basically logistics. We can save time for the following day and we know that Paulo feels proud to be 100% engaged in this mission. It's clearly a win-win situation!

Q4: Regarding delivery points: How does it work for volunteers and those associations who you work with?

When we started this project we realized that would have no sense to have rent a space that is only required for an afternoon per week. For that reason, we work in locations provided for **free** by associations with social purposes. As "payment", we promise a trade-off concept: we bring awareness to these locations and a proper big box full of fresh products.

Concerning, volunteers... we believe that this concept is a little bit abusive and inappropriate. They also receive a free box with fresh products. However, they are absolutely vital to this project. Due to the fact of an increasing number of delivered boxes per location, Fruta Feia realized that an urgent help would be required in order to manage each associate's box. For this reason, more than 40 volunteers are working once per week helping the project in terms of designing and packing.

The afternoon was spent in Anjos 70 where two main activities are done:

- *Designing and packing the boxes (between 2h30 and 17h)*
- *Sell the boxes to the associates (between 17h and 21h)*

Q5: In case people don't show up, and didn't let you know in advance... what happens?

There are two possibilities in that case:

Either someone buys that box (we always have people on the waiting list who do it) or ReFood volunteers collect it in order to avoid another cycle of waste. Anyway, if the second scenario occurs, the associate in cause will pay that missing box on the following week.

Q6: I imagine that these kinds of situations were a problem on the beginning. Can you tell me a little bit more about organizational problems in the past and nowadays?

I guess nowadays, everything is “quite perfect”. I don’t wanna look arrogant but I think we find the perfect recipe for our business model.

This “customer loyalty” problem that we were talking before was not only representing a loss (in terms of organization’s revenues) but also a new waste cycle. We have a commitment to each farmer so the solution needed to be on the consumer side. Nowadays “leftovers” are donated to Re-food NGO that fights against household food waste, by redistributing the surplus to those who are in precarious situations. However, its also true that this organization doesn’t have enough volunteers for their massive demand, so, sometimes, they “fail” with us.

Another problem already solved was the plastic! In the past, we were using around 1300 plastic bags for the purpose of strawberries’ packing and other small products. Nowadays we ask people to bring their own bags or small boxes. We also provide personal tote bags to each associate when the first annual fee and purchase is made. Afterwards, they should be reused every time the client picks up his products. Moreover, by providing these tote bags, we are also helping the association Ocean Alive and the “Mariscar sem lixo” (“fishing without trash”) campaign of Guardiães do Mar.

Last but not the least... expansion! We have currently more than 7000 people on our waiting list. We started with one delegation in XXX and now we have eight, three of them located in the north of the country (Gaia, Porto and Matosinhos). We are also planning to open a new one in Almada this year or in Lisbon’s suburbs like Sintra or Amadora. The demand is huge! We need to rethink our logistics and find new partners according to each location.

7.5 Appendix V - Script of the interview to Catarina Querido, CEO and Founder of Anjos 70 association

December 2017

Anjos 70 is one of Fruta Feia’s delivery points, located in Rua Regueirão dos Anjos, n°70, Intendente. The delivery takes place every Monday and has approximately XX associated members.

Founded and managed by NCR - Núcleo Criativo do Regueirão – Anjos 70 is a non-profit organization with a diversified and transversal cultural offer through a series of activities and events such as concerts, exhibitions, life performances, flea markets, workshops and thematic parties.

CONTEXT: “It is estimated that almost 90 million tons of food are annually wasted in the European Union (Stenmarck et al., 2016). This value is expected to increase by 40% during the next 4 years (Plazzotta et al., 2017). Food and Agriculture Organization of the United Nations recognizes that one third of the edible parts of food that are intended to human consumption get lost or wasted (FAO, 2011). Particularly in Portugal, the waste goes up to 1.7 million tons every year, according to PERDA, 2002 (“Fruta Feia | Gente bonita come fruta feia,” n.d.).

Agriculture in particular is mainly affected by programmed overproduction, quality standards requested by the European Union and the fruits’ and vegetables’ appearance (FAO, 2011). The latter represents the small sized or misshaped fruits and vegetables usually defined as “**substandard or suboptimal**” food (Mena et al., 2011) that consumers assume as low quality, ugly or out of date. Unfortunately, such demand results in a waste of about 30% of what’s produced by farmers (“Fruta Feia | Gente bonita come fruta feia,” n.d.).”

Q1: Even if acting unconsciously, do you believe that you are/were one of those consumers? (Who chose fruits and vegetables regarding their appearance?)

I need to admit that I think unconsciously. When choosing fruits and vegetables, I always took the biggest and most appealing ones - when in abundance. But it’s also true that in case of lack of option, I still bring the products that I want to purchase, even if they look terribly ugly.

Q2: Were you aware of this problematic?

Yes we already knew about this problematic, through other concepts like Freeganismo and Dumpster Diving.

Q3: How did you become aware of Fruta Feia’s project? When did you become partners?

I heard about the concept through Facebook but I honestly never thought of becoming a partner and take advantage of their offer. However, when we were contacted last summer we did not hesitate to accept the partnership. For that reason, Fruta Feia has been with us since September 2017.

Q4: One of the reasons why Fruta Feia decides to allocate its delivery points in

associations and other social/creative spaces is because they believe that the action brings benefits to both sides:

- **From Fruta Feia's side there are no rents' costs;**
- **From associations' side (as the case of Anjos 70), Fruta Feia promises a greater awareness for their initiatives and a large basket of vegetables and fruits.**

Can you measure the impact of Fruta Feia's presence in your space? In other words... do you believe that the Cooperative brings you more visualization and possible clients?

We still don't know the real impact of having Fruta Feia with us. However, it's true that it brings a lot of people to Anjos 70, namely families and older clients, that are not our typical target but belong to our local community. The other way around it's also happening. Since we have a lot of events happening at same time as Fruta Feia's delivery day, we are able to bring potential clients to their mission. It's a clear win-win situation.

Last but not the least, the trade-off regarding the big box is great! We can use all the products for our community dinners or weekly events with zero costs.

Q5: What is your opinion regarding the products offered by the Cooperative? (in terms of appearance, maturation, quality and taste)

It really depends. We usually like the diversity and quality of the products, but sometimes there are some of them that don't match our expectations. For instance: when we receive green tomatoes, we end up by not using them since they have no flavour at all.

Another aspect that really disappoints us is the fact that all the majority of Fruta Feia's products are not biological, contrary to what I would expect in such an initiative like this. At least... I feel that's what most of the people will naturally think or assume.

Q6: Do you recommend this service to more people?

Yes, no doubt! Mainly do this "magical feeling" of being engaged in a project who fights against a market's inefficiency and an uncontrolled consumption. However, I consider this initiative especially suitable for large families or groups of people. Big boxes are super full and in my individual case, I wouldn't be able to use everything within a week.

7.6 Appendix VI - Script of the interview to Ana Catarino, Fruta Feia's volunteer

December 2017

CONTEXT: “It is estimated that almost 90 million tons of food are annually wasted in the European Union (Stenmarck et al., 2016). This value is expected to increase by 40% during the next 4 years (Plazzotta et al., 2017). Food and Agriculture Organization of the United Nations recognizes that one third of the edible parts of food that are intended to human consumption get lost or wasted (FAO, 2011). Particularly in Portugal, the waste goes up to 1.7 million tons every year, according to PERDA, 2002 (“Fruta Feia | Gente bonita come fruta feia,” n.d.).

Agriculture in particular is mainly affected by programmed overproduction, quality standards requested by the European Union and the fruits' and vegetables' appearance (FAO, 2011). The latter represents the small sized or misshaped fruits and vegetables usually defined as “**substandard or suboptimal**” food (Mena et al., 2011) that consumers assume as low quality, ugly or out of date. Unfortunately, such demand results in a waste of about 30% of what's produced by farmers (“Fruta Feia | Gente bonita come fruta feia,” n.d.).”

Q1: Even if acting unconsciously, do you believe that you are/were one of those consumers? (Who chose fruits and vegetables regarding their appearance?)

I never chose fruits and vegetables regarding their colour or size. My decision relies on the taste and smell, and that is why I always try to buy them directly to local producers. I also prefer to purchase biological vegetables, unless they have caterpillars inside! I assume that it is a little bit disgusting!

Q2: Were you aware of this problematic?

I didn't have the idea of being such a massive waste but it's also true that I never bought this kind of products in big retailers. I never thought too much about it.

Q3: How did you become aware of Fruta Feia's project? When did you become a volunteer?

I read about Fruta Feia in Internet and I guess I did my application as a volunteer at the beginning of 2015, or even earlier.

Q5: What is your opinion regarding the products offered by the Cooperative? (in terms of appearance, maturation, quality and taste)

As I mentioned before, appearance is not an important topic for me. Usually, Fruta Feia's products have an amazing taste. The only problem relies on maturation, which sometimes surpasses our "normal" expectations.

Q6: Do you recommend this service to more people?

Sure! Absolutely!

7.7 Appendix VII - Script of the interview to Paulo Dias, Hortacambaia, Fruta Feia's farmer

December 2017

Local: Cambaia

Products: Sweet Potato, Aubergine, Tomato, Zucchini, Broccoli, Cucumber, Heart Cabbage and Lombard Cabbage

Q1: Hello Paulo! Before all my "serious" questions I want to ask you a curiosity: Isabel told me that you are the "godfather" of this project! Tell me a little a bit about it! Why this extra help?

Well, in fact, it is my way of being in life. My mind-set. I was the first farmer joining Fruta Feia in 2013. And since the very first beginning, I realized that I could help them with more than "just" supplies. I have enough free area in my warehouse and every single week I sell my products to the Cooperative. It's a win-win situation. I don't have any extra cost by helping them and I know that sometimes is useful for them to store all those boxes from other producers. I believe in their mission and it's not an effort for me to help. I am proud of doing it.

Q2: Glad to hear that! Let's talk a little bit about your career! For which retailers do you work now?

In the past, I was working with Sonae MC, namely Continente. Although, due to all these strict rules, I am not working with them anymore. I work on a weekly basis with Fruta and also with two auction houses. Sometimes... I also export my products to Spain.

Q3: When I was in your warehouse I noticed that a huge poster regarding quality standards was there. It had three pictures, with different rules regarding colour, format and size of tomatoes. I also took a look on the European Union standards where they fixed three different categories (Extra Class, Class I and Class II) related with these different parameters (maturation, size, colour, size, calibration, etc). How does this actually works? And who measures the products?

When I was working with Continente, the rules were extremely strict since they only buy the first category. They don't even buy the second one! In other words, this means higher calibrations, bigger sizes and fruits and vegetables in perfect conditions... They must be free from defects, with the exception of very slight superficial irregularities that do not affect the general appearance of the product. The measurement was made by me and my own employees but as far as I know, some big producers already have an official "Quality Control Manager" who ensures that all these details are fulfilled. In practical terms, each vegetable and fruit has a "technical form" with all the mandatory specificities. Afterwards, the producer needs to make sure that all the standards are satisfied otherwise the products will be rejected.

To give you an example... while I was working with Sonae MC, they tried to change the rules. They wanted bigger tomatoes, even if those measures were not aligned with European rules! As you can imagine... I told them that these standards are unchangeable.

In case of Fruta Feia, the scenario is different. The Cooperative buys the last category required by UE's standards – the only class that is not demanded by any other national company.

Last but not the least, the two auction houses who I am working with, sell both first and second categories.

Q6: The arrival of the Fruta Feia in your life, certainly had an impact not only in terms of environment but also economical. Do you have any idea of how much food was wasted before working with the Cooperative? And how much money were you loosing on average?

I guess the waste was around 30%... However, since I am working with Fruta Feia, it dropped for something like 10%/15%... Sometimes 20%!

It's impossible to delete all the waste because, depending on the season, I can produce a lot. Tomatoes, for instance... I understand that Fruta Feia has more suppliers beyond me and I can't ask them to play as a monopolist.

Regarding costs... It's really difficult to measure it. But I can ensure you that nowadays, with Fruta Feia by my side, at least one monthly wage is ensured by them.

There was one year where my revenues surpassed the 10.000 euros.

7.8 Appendix VIII - Script of the interview to Lucília Domingos, Fruta Feia's farmer

October 2017

Local: Ericeira

Products: Plum, Chuchu, Lemon, Orange and Tangerine

“I heard about this project through a friend of mine and I immediately recognized its potential. Some of the retailers, who I work with - like Fruta Oeste-, don't buy me the last category due to aesthetics reasons. The majority of the products that I sell to Fruta Feia are lemons, a product that grows every season. I can ensure you that the financial impact is huge.”

7.9 Appendix IX - Script of the interview to Duarte Henriques, Fruta Feia's farmer

October 2017

Local: Aldeia Grande, Maxial

Products: Apples (Maçã Bravo Esmolfe, Maçã Fugi, Maçã Royal Gala, Maçã Jonagored, Maçã Reineta, Maçã Starking)

“I am really happy today! This year I can't sell anymore to Fruta Feia because all my leftovers are gone! The Cooperative bought everything!

It's an industry struggling to survive. It's the apples that fall from the trees before harvest, the pests that damage the crops, the rain that doesn't come, the quality standards required by supermarkets... Ultimately, it becomes a thankless job". --- "At the end of the day, it's simply an ungrateful and tiring job"

7.10 Appendix X - Script of the interview to Ricardo Rodrigues, Fruta Feia's client

December 2017

Q1: Even if acting unconsciously, do you believe that you are/were one of those consumers? (Who chose fruits and vegetables regarding their appearance?) I don't think so I always had a huge proximity to nature and countryside making me realize that appearance is not equal to biological products or better taste.

Q2: Were you aware of this problematic?

Yes.

Q3: How did you become aware of Fruta Feia's project? When did you become an associate?

I became an associate through a friend of mine. I don't remember exactly the year but my associate number is 830, so I guess I am one of the first ones! I started my journey with Fruta Feia by sharing a big basket with a friend but after a while I realized that I also wanted to be an official associate. I truly enjoyed the products and their mission. I always believed that us, as consumers, have a huge power in our hands while making decisions. Consuming is a political, social and ecological act.

Q4: As you know, Fruta Feia operates as a Consuming Cooperative that after an online registration, has an annual fee of 5 euros that actually works as a subscription fee method. Do you believe that this "fee" has any influence on your loyalty to the project? Or the mandatory fact who takes you out of home is your "fight against food waste"?

Well, in my personal case, my main goal is fighting against this huge waste.

Q5: What is your opinion about the online personal area from Fruta Feia's website?

It's really important for me to be able to manage my "subscription" in a comfortable and easy way. Through the website I can easily change the size of my box or even eventually... cancel it. This method is also a good example of an active, democratic and transparent participation. As a community, we can all vote in our favorite products and assess their quality.

Q5: What is your opinion regarding the products offered by the Cooperative? (in terms of appearance, maturation, quality and taste)

In general, all the products have a higher flavour when comparing to those who are disposed in larger supermarkets. In my opinion it's also very rare that their maturation goes beyond the ideal. In other words, I think that all the products are very good in terms of quality, make me conclude that once again, appearance is not a key criterion.

Q6: Do you recommend this service to more people?

Yes, I do! I already did it and I will do it again.

Moreover, every single time that is impossible for me to collect my basket, I prefer to offer it to someone close to me and available to lift it, instead of cancelling it. With this behaviour, I also believe that I can bring more awareness and potential clients to the project.

7.11 Appendix XI - Script of the interview to Fernando Ventura, Head of Efficiency and Innovation of Environmental Projects, Jerónimo Martins

December 2017

CONTEXT: "It is estimated that almost 90 million tons of food are annually wasted in the European Union (Stenmarck et al., 2016). This value is expected to increase by 40% during the next 4 years (Plazzotta et al., 2017). Food and Agriculture Organization of the United Nations recognizes that one third of the edible parts of food that are intended to human consumption get lost or wasted (FAO, 2011). Particularly in Portugal, the waste goes up to 1.7 million tons every year, according to PERDA, 2002 ("Fruta Feia | Gente bonita come fruta feia," n.d.).

Agriculture in particular is mainly affected by programmed overproduction, quality standards requested by the European Union and the fruits' and vegetables' appearance (FAO, 2011). The latter represents the small sized or misshaped fruits and vegetables usually defined as “**substandard or suboptimal**” food (Mena et al., 2011) that consumers assume as low quality, ugly or out of date. Unfortunately, such demand results in a waste of about 30% of what's produced by farmers (“Fruta Feia | Gente bonita come fruta feia,” n.d.).”

Q1: The quality standards demanded by the European Union are very assertive and with specific regulations. In fact, there are three categories (Extra, I and II) related with a lot of details for each product according to its maturation, shape, color, among many other aspects. Knowing in advance that the consumer has a very strong influence on the disposal of the product, does Jerónimo Martins Group buy the three categories?

The group is trying to fight food waste along different fronts. This initiative results on:

- Promoting good health through food supply of soups ready to cook and salads ready to eat, incorporating non standard products;
- Buying non calibrated food products that use to have no or little market value (more than 13000 tons in 2016) to be used in Pingo Doce's kitchens and to be sold to Recheio's customers.

Q2: Does Jerónimo Martins Group have any measure of corporate social responsibility that tries to manage and avoid this problematic?

(Fernando Ventura provided the CSR report from JM)

7.12 Appendix XII - Script of the interview to Isabel Soares, Ceo and Founder of Fruta Feia

December 2017

Q1: How did you come up with the idea of choosing subscription fees as a strategy method?

The subscription method was planned, since the first proposal was launched. We knew that we couldn't fail to our main beneficiaries: the farmers. In fact, as you know, our main goal is

help national producers by selling their “leftovers”. For this reason, a strong commitment needed to be ensured since it was crucial for Fruta Feia not to have a highly volatile weekly demand. In practical terms, this means that on average, the amount of kg’s demanded by Fruta Feia needed to be constant. If our main goal is fighting against farmer’s waste, I can’t give higher expectations and then not comply them.

7.13 Appendix XIII- Script of the interview to Pedro Lago, Director at Business Project, Sonae MC

December 2017

CONTEXT: “It is estimated that almost 90 million tons of food are annually wasted in the European Union (Stenmarck et al., 2016). This value is expected to increase by 40% during the next 4 years (Plazzotta et al., 2017). Food and Agriculture Organization of the United Nations recognizes that one third of the edible parts of food that are intended to human consumption get lost or wasted (FAO, 2011). Particularly in Portugal, the waste goes up to 1.7 million tons every year, according to PERDA, 2002 (“Fruta Feia | Gente bonita come fruta feia,” n.d.).

Agriculture in particular is mainly affected by programmed overproduction, quality standards requested by the European Union and the fruits’ and vegetables’ appearance (FAO, 2011). The latter represents the small sized or misshaped fruits and vegetables usually defined as “**substandard or suboptimal**” food (Mena et al., 2011) that consumers assume as low quality, ugly or out of date. Unfortunately, such demand results in a waste of about 30% of what’s produced by farmers (“Fruta Feia | Gente bonita come fruta feia,” n.d.).”

Q1: The quality standards demanded by the European Union are very assertive and with specific regulations. In fact, there are three categories (Extra, I and II) related with a lot of details for each product according to its maturation, shape, colour, among many other aspects. Knowing in advance that the consumer has a very strong influence on the disposal of the product, does Jerónimo Martins Group buy the three categories?

Sonae MC is a "customer centric" company – the main goal of all our operations is customer satisfaction. We do it because it is part of our culture and it is actually the main ingredient for

those who provide services, namely retailers. We do a lot of research and listen our customers in many different ways. We are also constantly adapting our offer, our concepts and our services according to what the customer asks us for (explicitly or implicitly).

Fighting against food waste is another very important question for us. Although, we try to reach it in such a way that our strategic positioning is not in dangerous. Regarding the case of fresh products... customers are constantly demand quality at the best price!

Q2: Do you have any idea of how much waste is generated on average by "appearance" problems (by the consumer) in your establishments?

About 90% of this known FVW (Fruits and Vegetables Waste) is related to the appearance or quality of these products (real or perceived). The measure is made at the time of the withdrawal of the sales plate.