

INSTITUTO UNIVERSITÁRIO DE LISBOA

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How to Integrate Sustainability in the Restaurant Business: A case study of the first zero-waste Portuguese restaurant

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Abstract

Sustainability is increasingly discussed in a business world that is now also focused on the social and

environmental well-being, beyond merely seeking profits. Notwithstanding, the global ecosystem is

based on a linear throughput flow of materials, leading to an increase in waste, generating social,

environmental, and economic problems. Although the restaurant business has a big contribution to

degradation of the environment and social issues, it can also be an important voice in raising

consciousness about sustainability and a powerful motivator to the adoption of sustainable practices.

However, this is easier said than done. This research aimed to investigate and better understand the

integration of sustainability in a restaurant, having in consideration the various stakeholders of the

business and their relationships, and bearing in mind the social, environmental, and economic

dimensions. The results are based on a qualitative analysis of a case study - Kitchen Dates, the first zero-

waste Portuguese restaurant – and interviews were conducted with its stakeholders. The findings reveal

that to successfully incorporate sustainability in a restaurant, an integrated and holistic approach is

required, that considers all dimensions of sustainability, including a multi-stakeholder perspective based

on human relations in every activity of the business. Theoretically, this study introduces a holistic

perspective of how to incorporate sustainability in a restaurant, based on the insights of different

stakeholders; and from a practical perspective, it is hoped that this dissertation can provide restaurant

managers and other industry stakeholders with some guidelines and inspiration for incorporating

sustainability in the restaurant business.

Keywords: Sustainability, Restaurant Business, Sustainable Restaurant, Circular Economy,

Stakeholders, Covid-19

JEL Classification System:

M14 - Business Administration: Corporate Culture; Diversity; Social Responsibility

Q01 – Sustainable Development

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Resumo

Cada vez mais se discute o termo Sustentabilidade nos negócios que já não procuram apenas o lucro,

centrando-se também no bem-estar social e ambiental. O ecossistema global atual baseia-se num fluxo

linear, aumentando o desperdício, gerando problemas sociais, ambientais e económicos. Embora a

indústria da restauração contribua para a degradação do ambiente e para o desenvolvimento de

problemas sociais, também pode ser uma voz importante na consciencialização em relação à

Sustentabilidade. Mas, nem sempre é fácil fazê-lo. Este estudo pretende investigar a integração da

sustentabilidade na área da restauração, tendo em consideração os vários intervenientes do negócio e as

relações existentes entre si, não esquecendo as diferentes dimensões da Sustentabilidade: social,

ambiental e económica. Os resultados baseiam-se numa análise qualitativa de um estudo de caso -

Kitchen Dates, o primeiro restaurante português sem caixote do lixo – onde foram entrevistados os seus

stakeholders. As respostas deste estudo revelam que, para incorporar com sucesso o tema da

Sustentabilidade num restaurante, é necessária uma abordagem integrada e holística, onde todas as

dimensões da Sustentabilidade sejam tidas em conta. O gestor do restaurante deve adotar uma perspetiva

que tenha em consideração os seus diferentes stakeholders, tendo subjacente a importância das relações

humanas em todas as atividades do negócio. Teoricamente, este estudo introduz uma perspetiva sobre

como incorporar a Sustentabilidade num restaurante. A nível prático, espera-se que possa proporcionar

linhas de orientação tanto aos gestores de restaurantes como a outros intervenientes da indústria,

servindo também de inspiração para integrar a Sustentabilidade na área da restauração.

Palavras-chave: Sustentabilidade, Área da Restauração, Restaurante Sustentável, Economia Circular,

Stakeholders, Covid-19

Sistema de classificação JEL:

M14 – Gestão de Empresas: Cultura Empresarial; Diversidade; Responsabilidade Social, Stakeholders

Q01 – Desenvolvimento Sustentável

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1. Introduction

The topic of sustainability is gaining more and more relevance in a business world that no longer sees companies just as a means to make money, but also as an imperative vehicle for social good (Giovannoni & Fabietti, 2013). The idea that a company is a larger system that should not only pursue profit to survive, but also benefit social and ecological systems simultaneously can no longer be ignored, and companies now have an increasing concern to incorporate the needs and demands of their various stakeholders in their decisions (Bansal et al., 2017).

At the same time, a vital problem in sustainable development – the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p. 5) - is the linear throughput flow of materials and energy between nature and human economy (Korhonen et al., 2017), in a global ecosystem that is becoming smaller, both in size and volume (Brown, 2006).

As a consequence of this linear system, solid waste is now one of the main topics of concern in sustainability and a global environmental issue (Seng et al., 2010), with food waste being one of the most alarming types of waste (MacArthur, 2019): globally, one third of the food produced for human consumption is lost or wasted per year (about 1.3 billion tons of food) (FAO, 2017). In the European Union, more than 100 million tons of food are wasted per year, with the figure lying at one million tons in Portugal (European Commission, 2016).

Indeed, Portugal is the Mediterranean country with the highest per capita footprint, it relies on the biocapacity of foreign countries to satisfy its residents' demand for food (Galli et al., 2017), and food consumption in Portugal is the single largest reason (\approx 30%) for transgressing the carrying capacity of Earth ecosystems (Galli et al., 2020).

According to a study by FAO (2013), 54 percent of the food losses and waste occur upstream - at the production, post-harvest handling and storage phases - and the remaining occurs downstream - in the distribution and consumption phases. This food that is fit for consumption is not consumed because of negligence, by the final consumer at the household level as well as by the restaurant actors (FAO, 2017).

This food waste problem has social, environmental and economic implications. At the societal level, 10 percent of the global population goes hungry and one third of the food for consumption is uneaten every year. If 25 percent of the food wasted globally was consumed and if the remaining 75 percent of food available was well distributed, it would be sufficient to feed 12 percent of the world's current population (MacArthur, 2019). Hunger has been on the rise in the last five years, and the Covid-19 pandemic is threatening the food and nutrition security of up to 132 million more people worldwide (FAO, 2020). At the environmental level, the amount of food waste per year has an enormous impact on land, water,

climate change and biodiversity (Lundie and Peters, 2005; Collins and Fairchild, 2007), with the carbon footprint of food produced and not eaten estimated at 3.3 billion tons of greenhouse gases, occupying almost nearly 30 percent of the world's agricultural land area, and the blue water footprint of food wastage being about 250 cubic kilometers (km3) (FAO, 2013). On the economic side, the global cost of food wastage is estimated at 620 billion euros and at the European level, the costs of food waste were estimated to be at around 143 billion euros in 2016, of which 98 billion euros (two-thirds) were from households and the second largest contributor was the food service sector (with food waste costs of 20 billion euros) (FUSIONS, 2016).

Although restaurants and cafes are one of the biggest contributors to environmental degradation (JingJing et al., 2008), they are also one of the main wealth and employment creators in the global economy. With the emergence of new social awareness and globetrotting gastronomy projects (Mair et al., 2008), food is starting to also be seen as a motivator for civic engagement and a catalyst for change, which makes restaurants and cafes powerful influencers in rising consciousness and participation in sustainability efforts, especially in relation to food (World Travel & Tourism Council, 2017).

In addition, as in other industries, consumers are more concerned about sustainable practices also in the restaurant business, and media are more alert to it (Hu et al., 2010), which increases the pressure for restaurants to incorporate sustainable initiatives (Murphy & Adair, 2013).

The issue of sustainability in the restaurant business has been the focus of research attention in the past. The existing research on sustainable restaurants has focused on energy efficiency (Berezan, 2010), organic options (Poulston & Yiu, 2011), marketing and brand perceptions of "green restaurants" (Gregory, & Jackson, 2013), the connection of sustainable restaurants and the SDGs agenda (Higgins-Desbiolles & Wijesinghe, 2018), among others. At the same time, the concept and elements of "green restaurants" and their principles of eco-friendliness, social justice, and health and economic development (Hu et al., 2010) have also been studied, and this research shows that restaurants are an important site for implementing sustainability concerns and goals. Some of the best practices of sustainable restaurants have also been identified (Higgins-Desbiolles et al., 2014; DeMicco et al., 2014; Moskwa et al., 2014; Mai, 2019).

Although these studies have shown that a restaurant that incorporates sustainable practices in its day-to-day activities can have environmental, social and economic benefits (Higgins-Desbiolles et al., 2014; DeMicco et al., 2014; Moskwa et al., 2014; Mai, 2019), they do not explore the potential tensions that might be expected to rise among these dimensions and how managers deal with them.

Another issue requiring further examination pertains to the role of stakeholders. Previous research has shown that stakeholders can be important in the pursuit of sustainability (Moskwa et al., 2014) but the

importance of the different stakeholders in the restaurant business and the impact of their relationships in implementing sustainable practices have also not been clearly discussed.

Additionally, the year of 2020 was marked by a global pandemic of Covid-19 that had a significant negative impact in the restaurant industry (Dube, K. et al., 2021). Although previous studies show that organizations that have an integrated approach of sustainability have financial advantages during economic downturns (Kearney, 2009), it is unclear whether this was also the case during the pandemic, given the unprecedent nature and scale of it.

In this context, and with the ambition of trying to close these gaps, the objective of this research is to explore and better understand the integration of sustainability (in all three of its dimensions) into the day-to-day decisions and activities of a restaurant that aims to be zero-waste, taking into consideration the roles and perspectives of various of its stakeholders. In particular, we aim to answer the following research questions:

RQ1: What are the day-to-day activities that a restaurant can incorporate in order to be more sustainable from a social, environmental and economic perspective?

RQ2: Are there tensions between the various dimensions of sustainability (social, environmental and economic) and, if so, how are they managed while integrating sustainability in the restaurant business?

RQ3: What is the role of stakeholders in the business in the process of integrating sustainability in a restaurant?

RQ4: What are the main benefits and challenges of integrating sustainability in the restaurant business from the point of view of its various stakeholders?

RQ5: How has the global pandemic of Covid-19 affected the integration of sustainability in the restaurant business?

In answering these research questions, we hope to contribute to the body of knowledge on sustainability in the restaurant business, by adding a more holistic perspective of its integration in a restaurant, considering not only the economic, environmental and social perspective, but also the potential tensions between them. At the same time, we expect to provide new insights on the role of the diverse actors of the supply chain in the integration of sustainability in the restaurant industry, their practices and the relationships among them. And it is hoped that this master dissertation will also have a practical contribution, serving as an aid for restaurant managers intending to integrate sustainability in their restaurants, taking into account the social, economic and environmental dimensions.

The remainder of this dissertation is organized as follows. Chapter 2 presents the Literature Review, on the topics of sustainability and the current status of sustainability in the restaurant business, from both theoretical and practical perspectives. Then, the Research Methodology used in this study is described (chapter 3), followed by the presentation of the case (chapter 4) and its analysis and discussion of results

(chapter 5). In chapter 6 conclusions are drawn, and the main findings, limitations and suggestions for future research discussed.

2. Literature Review

To accurately answer how to integrate sustainability in the restaurant business it is central to have previous knowledge and understanding of sustainability and the current status of this theme specifically in the restaurant business. Therefore, in this chapter sustainability will be presented in both its theoretical and practical perspectives.

First, the concept and history of sustainability will be revised as well as the triple bottom line and two sustainability theories that can be particularly appropriate for this study. After having this theoretical knowledge of sustainability, practical key elements will be presented to help the integration of sustainability into a business, and the circular economy as a more sustainable alternative to the linear economic system will be discussed.

In order to recognise the importance of integrating sustainability into the restaurant business, one of the main concerns in the topic of sustainability – food waste - will be analysed, and the end of the literature review chapter will be focused on sustainability, specifically in the restaurant business.

2.1. Sustainability – concept and history

The topic of sustainability is gaining more and more relevance in a new business world that does not see companies just as a means to make money, but also as an imperative vehicle for social good (Giovannoni & Fabietti, 2013). Companies now have an increasing concern to incorporate the needs and demands of the various stakeholders in their decisions, while understanding the benefits of including in the business strategy other elements, such as the communities and the natural environment (Chandler, 2014).

The most used definition of sustainability is connected with the concept of "sustainable development" and belongs to "Brundtland Report", by the World Commission on Environment and Development (1987), and claims that "sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p. 5). This definition is very broad and could have many different interpretations, but the author approaches sustainability explicitly as a three-dimensional concept (economic, environmental and social). In this dissertation, we interpret this claim in a way that to achieve sustainability (a long-term goal) we need to manage our natural resources in an efficient and effective way – a way that allows the Earth to continuously generate those resources to respond to future demand.

The term sustainability, although it seems to be a recent trend, is a three-hundred-year-old idea that has its roots in the forest and wildlife management (Kiron et al, 2015). Hans Carl von Carlowitz started to use the term sustainability in 1713 with the meaning of continuity, restoration or uninterrupted effect; and the author already connected (in an indirect way) the use of natural resources with the economic system, and at the same time had in mind societal concerns.

With the increasing of global concerns about poverty, inequality, limited resources and other environmental issues (Kiron et al, 2015), the concept of sustainability was reintroduced. Meadows et al. (1972) states a solution to these problems as follows: "The definition of the state of global equilibrium is that population and capital are essentially stable, with forces tending to increase or decrease them in a carefully controlled balance". In the 1990's, some authors used the term sustainability to refer only to environmental issues and saw it apart from economic systems (Gladwin et al., 1995). However, by the end of 20th century and beginning of 21st century, studies on this topic started to discuss not only the natural environment but also society (Bansal, 2002; Elkington, 1997; Hart & Milstein, 2003), as interdependent elements (Valente, 2012). And because firms cannot exist without oxygen, fresh water or fertile soil, there is a clear interconnection between environmental resources and the business world and economic concerns as well (Gladwin et al, 1995; Hart and Dowell, 2011).

2.2. Sustainability and the Triple Bottom Line

The concept of sustainability, as mentioned before, has been increasingly used and, nowadays, we see all types of organizations talking about sustainability in their statements, internal and external reporting systems and external communications, in response to the increasing pressures of their various stakeholders (Werbach, 2009). But the possible interconnection of the three elements of economy (not just finance), society and environment dates to 1997, when Elkington created the term "the triple bottom line" (TBL) to refer to the three areas of performance and impact of an organization (Elkington, 1997). The idea is that a company is a larger system that should not only pursue profit to survive, but also benefits social and ecological systems at the same time (Bansal et al., 2017).

The economic line of sustainability is about profit but is not only focused on the financial performance of the firm. This dimension sees if the business operations are economically sustainable: the capital of the company, the profit margins, the competitiveness of its costs, the demand for its products or services, the long-term viability of its innovation. It is also concerned with the intellectual capital of the firm, the creation of health and wealth, the payment of taxes and also the natural capital of the firm (such as air, soil, water, among others). Here organizations need to include environmental accounting, identifying the environmental related costs and revenues (Elkington, 1997).

The environmental line is about the planet, and the impact that an organization has on the natural environment, the management of the natural resources, its use of toxic materials, the way the firm

manages waste, its role in the reduction of carbon footprint and the system that is used to restore the resources already utilized (Goel, 2010).

The social line is about people, the impact that a firm has on its stakeholders (all the people that are affected by the firm, like employees, customers, suppliers, communities) (Freeman, 1984). This dimension is concerned about the social capital: human capital, public health, skills, and education and with the potential that a firm has to create both society's health and wealth (Elkington, 1997).

Business is part of society and, as a possible major vehicle for social good (Chandler, 2014), honesty, loyalty and the degree of trust between the firm, its industry, community and external stakeholders are key to a company to achieve long-term sustainability (Elkington, 1997). In this context, Elkington (1997) proposed that sustainable goals, in every sector or company, cannot be measured only in terms of profit or loss. The wellbeing of people and the health of the planet need to be accounted for. Therefore, in this point of view, the full cost of doing business is only considered in companies that embrace the TBL approach.

Twenty-five years after coining the term, Elkington (2018) proposed a strategic recall emphasizing that the concept was developed to disrupt capitalism, to motivate future thinking and for companies to have in consideration the impact of their decisions on the profit but also on the people and planet, not to be one more accounting tool or a balancing act to adopt a trade-off mentality, as sometimes it is used. The author also criticizes that managers still think of profit as the main target, and the other two Ps (people and planet) are put in second place – the single bottom line (profit) is still the paradigm that stands out, and the proof of this is that the ecosystem is increasingly threatened (Elkington, 2018). In this scenario, Elkington enhances that changing this system "... involves a wide range of stakeholders and coordinates across many areas of government policy, including tax policy, technology policy, economic development policy, labor policy, security policy, corporate reporting policy and so on." (Elkington, 2018, para. 6).

2.3. Sustainability Theories:

The integration of sustainability in business requires an understanding of sustainability theories (Rezaee, 2016). There exists a range of different theories that can be applied to the sustainability theme, but for the purpose of this study we will explore two of them that can be particularly appropriate for the integration of sustainability into a business: stakeholder theory and stewardship theory.

2.3.1. Stakeholder Theory:

Besides the internal factors that contribute to a successful implementation of sustainability into a firm, it is also argued that it is possible to find agents of change externally, such as suppliers, investors and customers (Bansal, 2003) and that stakeholders not only have an influence on sustainable practices but also exert different pressures that affect such practices (Sharma & Henriques, 2005).

The idea that firms' managers have responsibilities to a broader range of actors has its roots in the mid-20th century, and the stakeholder concept is widely understood as an organization, group or individual who can affect or can be affected by an organization's objectives and actions (Freeman, 1984). Even though this is the most consensual definition, it can promote the sense that everyone is a potential stakeholder, which may lead to confusion and lack of responsibility in decision-making (Chandler & Werther, 2014). To overcome this constraint, Chandler (2014) proposes that firms divide its constituents in three categories: organizational stakeholders (internal to the firm, such as managers and employees), economic stakeholders (which include customers, shareholders and competitors) and societal stakeholders (external to the firm, for instance local communities, government agencies, the media, among others). Originally, the main focus of stakeholder theory was social actors, but more recently non-social stakeholders started to be incorporated, in order to address environmental issues (Chang et al, 2017). According to some authors, the natural environment should not be included in the stakeholder identification (Philips, 2003) because this element does not speak, feel or act. On the other hand, other authors (Starik, 1995; Haigh & Griffiths, 2009) suggest that the environment should be considered a stakeholder that has its own rights and should be protected. For the purpose of this research, we will consider the natural environment as a company stakeholder.

The stakeholder theory is based on the assumption that values are necessarily and explicitly a part of doing business and suggests that managers need to articulate their core values with the stakeholders' values, which pushes managers to think about how they want to do business and what type of relationships they need to create with their stakeholders in order to delivery that common value (Freeman et al., 2004). For Freeman (2004), purpose and human relations are key in the ongoing success of the firm, and top managers have the responsibility of inspiring their stakeholders, building relationships and creating communities where every element of the business works in the same direction, with the main goal of delivering the firm purpose, where all elements win continuously over time (Venkataraman, 2002).

To some authors, this multi-stakeholder perspective that enables firms to respond to the various everchanging demands and needs of its stakeholders is the optimum vehicle for the integration of Corporate Social Responsibility (CSR) and sustainability in the business (Chandler & Werther, 2014). However, although stakeholder groups may complement each other, sometimes they compete against each other (Neville & Menguc, 2006). In order to manage these tensions while identifying the stakeholders, managers should not simply identify the actor but also interpret and understand the symbiotic relationship that exists between that stakeholder and the company (Lozano, 2005). Mitchell et al. (1997) propose that managers prioritize stakeholders' claims according to their relative power, legitimacy and urgency in influencing the company's strategy, bearing in mind that some of them influence the organization directly (they can manipulate the flow of the resources to the company) and others indirectly (they are not considered primary for the company, do not control resources and impact the business through other stakeholders) (Frooman, 1999).

In this scenario, Chandler and Werther (2014) also highlight that the relative importance of each stakeholder differs not only from firm to firm, but also from issue to issue and from time to time. In order to help managers applying the stakeholder theory and deciding how to prioritize stakeholder concerns, these authors propose a Model of Stakeholder Prioritization that focuses on three factors: 1) the strategic relevance of the situation for the firm, 2) the evolution of the issue and 3) the stakeholders' motivation to act or the importance of the issue to each stakeholder. The combination of these factors enables managers to understand which particular issue or stakeholder is central to the firm and which one should be prioritized. In order to help firms anticipate or respond to stakeholders' concerns, Chandler and Werther (2014) also designed The Five Steps of Stakeholder Prioritization, where the first step is to identify the group of stakeholders that are important to the organization; in the second step, managers need to analyze the nature of the issue to understand the relevance to the firm's operations and its evolution; in the third step, the focus is to prioritize among competing stakeholder demands and interests regarding the issue; the fourth step is to act in a way that it is possible to satisfy as many stakeholders as possible according to the prior prioritization and without harming anyone; the fifth and last step is to evaluate the impact of the action with the objective of optimizing the outcomes not only for the firm but also for its stakeholders.

Other studies also reveal that organizations that have in mind the protection of the environment and the social wellbeing of the various stakeholders, at the same time that they add value to the shareholders, have financial advantages during economic downturns, because of the reduction of operational costs and increased revenues from innovative green products (Kearney, 2009).

2.3.2. Stewardship Theory

Another theory that is very applicable to business sustainability is the stewardship theory (Donaldson & Davis, 1991) in a way that also considers the long-term orientation and protection of all stakeholders' interests. The stewardship theory has its roots in sociology and psychology and was created for researchers to examine situations in which managers - as stewards - have their goals aligned with the goals of their principals and are motivated to act in their best interests rather than by individual self-interests (Donaldson & Davis, 1991).

In this theory, the manager's behavior is pro-organizational and collectivistic, motivated by high order needs based on high value commitment and long-term orientation. And when the values of the steward and the stakeholder are not aligned, the steward attaches greater importance to cooperation (Davis et al., 1997) and acts in the protection of others long-term welfare (Hernandez, 2012). However, this does not mean that the business does not need income in order to survive. The difference between a self-interest-

oriented manager and a steward one is the way these needs are met – here, the manager is aware of the possible trade-off between personal needs and firm goals and believes that, working in a collective and pro-organizational way, the personal needs will consequently be met as well (Davis et al., 1997), because in this situation the utility that can be gained is higher for the various parties.

We can see a clear relation between the stewardship theory and corporate sustainability (Rezaee, 2016) where the shared values and the connection between the business elements can provide benefits to the various stakeholders in the social, environmental and economic dimensions, over the long-term.

2.4. Incorporating sustainability into business

After understanding sustainability in a theoretical perspective, specific practical elements of integrating sustainability into a business will be presented. With the convergence of the sustainability and responsibility fields as strategic elements of business, the term business sustainability starts to get more attention (Bansal & DesJardine, 2014). In accordance to the Brundtland report, Dyllick and Hockerts (2002) define business sustainability as "meeting the needs of a firm's direct and indirect stakeholders [...] without compromising its ability to meet the needs of future stakeholders as well" (p. 131). In this context, sustainable businesses are "those that manage intertemporal trade-offs in strategic decision making, so that both the short and long term are considered" (Bansal & Desjardine, 2014, p.71). Sustainable development is about an integrated approach (rather than isolated initiatives) around the financial, social and environmental dimensions (Giovanni and Fiabetti, 2013), which requires a change in organizations' practices to incorporate sustainability into their corporate strategy (Hopwood, 2009), and an efficient managing of the tensions and trade-offs between each one of these dimensions, in order to really and successfully integrate sustainability. There is no official framework that guides all companies in the integration of sustainability in their business, although, many corporate elements, actions and tools (Cici and D'Isanto, 2017) have been pointed out in recent literature as potential success factors in creating a more sustainable company, which will be presented in the following paragraphs.

In the 1980s, companies started to embrace sustainability topics mainly by looking just to the external context, in a compliance to growing regulation. For some authors, standards, regulations and policy frameworks¹ still have an important role when achieving sustainable development (Chen & Chambers, 1999). This type of standards and regulations in the topic of sustainable development can provide incentives and sanctions to companies, with the specific purpose of aligning the different interest of individuals, firms, environment and society (Kanuri et al., 2016). Handfield et al. (2002) pointed that an increased environmental responsibility by companies was a result of several developments, including the introduction of the ISO 14000 certification standard (that sets out the criteria for an environmental

¹ A policy framework is a document with a set of principles, procedures and/or long-term goals that might be used to guide the planning, development and decision-making process in a specific area in a general way, and it is a base of its legislation and regulations (Ramcilovic-Suominen & Pülzl, 2018).

management system), and the growing focus on waste reduction from external and governmental agencies. A study conducted by Linnenluecke et al. (2010) also highlights the importance of the publication of a corporate sustainably policy to help companies integrating sustainability into their businesses.

More recently, companies have started adopting a more pro-active approach, and attempt to embed sustainability issues into business culture and management systems (Giovannoni & Fabietti, 2014). Some authors argue that in order to improve the sustainability implementation process it is important to look to the external context but also to the internal one (Epstein et al., 2010; Rezaee, 2016). Other research suggests that business sustainability is now focused on a more integrated, holistic and strategic approach embracing all the dimensions of sustainability performance and the various stakeholders, rather than isolated and opportunistic activities (Kiron et al., 2015). And further literature argues that to sustain successful and long-lasting business, there is a growing need to integrate sustainability as a primary premise in business strategies (Petrini & Pozzebon, 2010; Cici & D'Isanto, 2017).

Bonn and Fisher (2011) argue that, if an organization wants to be more sustainable, managers need to integrate sustainability into the strategy process from the beginning and it is key that sustainability becomes part of the organization's vision, commitment and decision-making process, and needs to be supported by the organization culture. For Cici and D'Isanto (2017), sustainability is not a separate element that needs to be added to the strategy but rather an integrated process of the long-term strategies, policies and objectives of the firm that must be incorporated into operational procedures. Although a growing number of companies are making efforts to integrate sustainability into their business practices (Jones, 2003), a large number of firms still keep the topics regarding to sustainability separate from the business strategy and performance evaluation (Clarkson, 1995).

Leadership has likewise been recognized as a key factor in the commitment of an organization to sustainability (USEPA, 2001) and appears to be an important ingredient in the adoption of sustainable practices (Fineman, 1996; Bansal 2003; Petrini & Pozzebon, 2010). Many authors argue that the sustainability values, principles and concerns about social and environmental aspects promoted by top management, as well as their emotional involvement with these issues, have a clear impact in the company. These principles and concerns become more likely to be shared and held by all the members of the firm (Hoffman, 1993; Welford, 1995; Kollmus & Agyeman, 2002), which will be translated into changes in the day-to-day activities (Howard-Grenville, 2006; Jarnagin & Slocum, 2007) and this will in turn empower other stakeholders to also commit to sustainable business practices (Petrini & Pozzebon, 2010). Top managers have an important role in incorporating their sustainability concerns into strategic decisions and it is essential that they do not fail to recall this sustainable approach when conflicts between the dimensions of triple bottom line start to arise, bearing in mind a long-term oriented solution rather than a short-term financial reward (Bonn & Fisher, 2011).

Alongside with top management, the corporate culture is another key element in integrating sustainability (Cici and Disanto, 2017) and early studies already emphasized the importance of the transformation of organizational culture in order to embrace environmental and social problems in the business environment (Shrivastava and Hart, 1994). For Epstein (2010), leadership and organizational culture are the main determinants in successfully managing the trade-offs that will appear between the social, environmental and economical dimensions of a business. In this scenario, organizations should develop a sustainability-oriented organizational culture (Crane, 1995), must incorporate the social and environmental concerns, and reward and encourage long-term thinking (Hopkins et al., 2009), while helping decision-makers deal with these trade-offs.

When creating a culture based on sustainability, it is also essential to bear in mind three levels of corporate culture (Schein, 2004): the observable culture (that englobes the visible structure, the processes and behaviors); the espoused values (that refer to approaches, goals and strategies); and the underlying assumptions (the invisible beliefs and perceptions that have a profound impact on the values and actions of the company) – the processes and behaviors are only the tip of the iceberg, the underlying assumptions assuming a profound impact in the process of creating a sustainability-oriented culture. Linnenluecke and Griffiths (2010) suggest that a culture based on human connections, that emphasizes social interaction and interpersonal relations, will have a better ability to incorporate sustainability into corporate culture, because it is more open to upgrading internal staff knowledge and skill formation, more aware of work-life balance principles and it is a promoter of equal opportunity and workplace diversity (Dunphy et al., 2003).

A corporate culture based on sustainability may inspire and motivate employees to take sustainability obligations in a more serious way and this culture also has the ability to empower employees to create a passion and commitment to it, which benefits not only society and the environment, but also the company itself (Epstein et al., 2010). In addition, a sustainability culture also has the potential to influence stakeholders' actions (such as suppliers, distributors and even society) (Stead & Stead, 1992). However, it is important to emphasize that when a company wants to reframe its culture to a more sustainability oriented one, tensions may appear, once it is necessary to introduce curiosity, exploration and flexibility, and most typical business cultures are based on stability and control (Senge & Carstedt, 2001). In order to develop and maintain cultures oriented to sustainability, it is crucial to include social and environmental criteria in the job descriptions, recruitment, selection and training process as well as reward systems (Bonn & Fisher, 2011).

The integration of sustainability topics and measures in employee training and education can be another key element regarding the implementation of sustainability in the company and dissemination of the topic to all areas of the business (Stone, 2006), and it is positively linked to communication systems,

once the feedback information obtained here can be a powerful instrument that allows improvements in the implementation of sustainability actions aligned with the firm strategy (Petrini & Pozzebon, 2010).

Reward systems can also be a critical tool in this implementation process, as they may have an important role in the alignment between the top management and all employees and can motivate employee actions (Daily & Huang, 2001; Wilkinson et al., 2011; Epstein et al., 2010). Some initiatives such as asking for suggestions about new sustainable actions and opportunities have a positive impact in employee empowerment in the topic of sustainability (Epstein et al., 2010).

The organizational vision (the desired future position of the company) is another important component to integrate sustainability into the business (Petrini & Pozzebon, 2010). This vision must reflect the organization's commitment to sustainability (what the organization seeks to achieve in terms of this topic), should be based on long-term goals and include economic, environmental and social concerns, because this shared vision can provide a sense of orientation in the decision-making process, in developing specific actions and could be a guidance when trade-offs appear (Bonn & Fisher, 2011). For the other elements of the business such as employees and stakeholders, this common vision can facilitate while translating sustainability into their day-to-day work (Marshall and Brown, 2003).

In the process of successfully implementing sustainability, the alignment of strategy, top management and organization vision with structure is vital (Epstein, 2001). When the top management is committed to sustainability, it is possible to make changes in the organizational structure that enable putting sustainability into action. This can happen through the creation of sustainability or Corporate Social Responsibility departments that have a positive impact in educating the other business units about the engagement in sustainability efforts, influence the inclusion of sustainability subjects in decision making and develop tools for making sustainability practices a reality in the firm (Epstein, 2010).

The restructuring of the firm can be seen as a formal way of facilitating the implementation of sustainable practices, with the purpose of minimizing divergences that may appear from a lack of alignment between the top management commitment and organizational practices. The adaptation of the organizational structure allows the implementation of clear mechanisms that consolidate and legitimate the integration of sustainability by enhancing the importance of this topic in the firm, implementing education practices to promote sustainability internally and externally, applying new tools for communicating and reporting, and recognition systems of sustainable initiatives (Petrini & Pozzebon, 2010).

Another promoter of sustainability are institutional mechanisms such as communication, corporate reports and training (Petrini & Pozzebon, 2010). A clear and transparent communication inside and outside the company is key for a successful integration of sustainability, in a way that clarifies the role of sustainable practices for the firm strategy and consequently improves the level of commitment to it

(Marrewijk, 2004; Stone, 2006). Shorter lines of communication and closer interactions seem to have greater impact regarding sustainability topics (Aragon-Correa et al., 2008).

Reporting mechanisms that provide reliable information can also have an important impact in building and legitimizing the firm's sustainability practices and play an important role in demystifying the myth that business and sustainability are not compatible (Tragidga & Milne, 2006).

2.5. Sustainability and Circular Economy

A vital problem in sustainable development is the linear throughput flow of materials and energy between nature and human economy (Korhonen et al., 2017), in a global ecosystem that is becoming smaller, in size and volume (Brown, 2006). In this linear flow, "resources and energy are extracted from the parent system, produced and consumed within the human economic subsystem and waste and emissions are dumped back to nature in harmful concentrations" (Korhonen et al., 2017, p. 38), creating environmental problems such as biodiversity loss, soil, air and water pollution, excessive land use and resource depletion (Rockstrom et al., 2009; Jackson, 2009, WWF, 2014), social complications such as social vulnerability, poor working conditions inter and intragenerational equity among others (Banerjee and Duflo, 2011) and economic challenges such as supply risk, economic instabilities and deregulated markets, among others (Sachs, 2015).

In order to harmonize economic growth and environmental protection, the concept of circular economy was brought to the table by Boulding (1966) and has been gaining momentum since the late 1970s. This concept enhances that economic growth cannot forever increase in a finite world and it is mainly motivated by the belief that resources can be better used, and waste reduced (Geissdoerfer et al., 2017). Thereby, the term circular economy can be defined as "a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops. This can be achieved through "long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling" (Geissdoerfer et al., 2017, p.759).

Companies are now increasingly conscious about the circular economy's opportunities and their potential value not only for them but also for their stakeholders. The idea of this economic system with an alternative flow model is to create a closed and regenerative loop (MacArthur, 2013) that eliminates all resource input into a leakage out of the system, to create a better use of resources and waste. This can bring economic and financial advantages for companies that embrace this business model, and less consumption and deterioration of the natural environment, since this system keeps products, components and materials "in their highest utility and value, at all times" (Webster, 2015, p. 16). The incorporation of a circular economy program inside a company can happen through different strategies, but the most common ones are design for the environment or eco-design (Wrinkler, 2011) and cleaner production

(Bilitewski, 2012), since it is fundamental to bear in mind the environmental impacts of the life cycle of the product or service, from the earliest stages of its conception (Prendeville et al., 2014).

Several authors point that this loop economy has the ability to prevent waste, to create regional jobs, to manage resources more efficiently (Stahel & Reday, 1976), and consequently reduce energy, resource and waste management costs (Korhonen et al., 2015). Research also emphasizes that new business concepts may arise from the circular economy system, such as selling the utilization of goods instead of owning them (one example is the self-service laundry business) - this can be the most applicable sustainable business model for this type of economy, in a way that allows companies to profit without externalizing costs and waste risks (since there are more consumers using the same product, decreasing the demand for more units) (Stahel, 1982). These circular economy benefits have relatively immediate results (Macarthur, 2013).

Some authors criticize that the Circular Economy seems to prioritize economic systems focusing on environmental benefits with only implicit social gains (Murray et al., 2015; Geissdoerfer et al., 2017), rather than taking a holistic view of the three dimensions of sustainability (environment, society and economy). Regarding social aspects, the most often mentioned are new job creation, but also changing lifestyles through the shared economy, with substantial improvements in how people live (Webster, 2015) and increased welfare for low-income households (Castellani et al. 2015) - this is because the reuse and remanufacturing activities are labor intensive (instead of resource intensive as in the linear economy) (Stahel, 2013).

In sum, the circular economy approach is a key element of sustainable development (Rashid et al., 2013; MacArthur, 2013; Webster, 2015) with a stronger conditional relationship in the environmental dimension, and positively related to a sustaining economic output (Bakker et al., 2014). And it is possible to see clear advantages in all dimensions through the adoption of this circular system: in the environmental area, the production-consumption system of virgin material and energy inputs can be reduced at the same time that waste and emission outputs can be minimized or even prevented; in the economic area, the raw materials and energy costs, waste management, emissions control and legislation costs are consequently reduced, a better reputation and image of the company is built and new business/market opportunities and innovative product design emerge; in the social area, it is possible to increase employment, to change people's lifestyle and to create a community user culture (Korhonen et al., 2018).

However, some authors point out that this closed loop system is not a sufficient condition to achieve long-term sustainability (Nakajima, 2000), and a negative relationship is also emphasized by some authors, where the main criticism is that a closed circle is not compatible with growing demand or with problems with the energy needed to recycle materials (Allwood, 2014).

2.6. Sustainability and Food Waste

One of the main concerns in the topic of sustainability and one of the global environmental issues (Seng et al., 2010) is solid waste², that is a result of the increasing population, the rapid urbanization and growing demand of goods and community living standards (Minghua et al., 2009; Guerrero et al., 2013). Connected with this issue, the term "zero-waste" arises in 1973 to refer to a system where materials are used many times until the optimum level of consumption, without waste or underuse and, in the end of their life-cycle, products are reused, repaired, sold, recycled or redistributed within the system – in other words, material flow is circular, being the circular economy a possible answer to the waste management issue (Murphy and Pincetl, 2013).

One of the most alarming types of waste is food waste, which is also a consequence of the linear food system (MacArthur, 2019). Globally, one third of the food produced for human consumption is lost or wasted per year (about 1.3 billion tons of food) (FAO, 2017). In the European Union, more than 100 million tons per year are wasted (European Commission, 2016), and one million in Portugal. We can define food losses as the decrease in quantity and quality of food in the production and distribution stages of the food supply chain. Food waste is the term used to refer to this food that is fit for consumption and that is not consumed because of negligence, predominantly by the final consumer at the household level, but also by the restaurant actors (FAO, 2017). According to FAO (2013), 54 percent of the food losses and waste occur upstream and the remaining occurs downstream, and the UN Environment Programme's Food Wasted Index revealed that 17 percent of the food available to consumers - in shops, households and restaurants - goes directly into the garbage can (UNEP, 2021). This problem has social, environmental and economic implications:

Regarding to society, 10 percent of the global population goes hungry and one third of the food for consumption is uneaten every year. If 25 percent of the food wasted globally was consumed, it would be sufficient to feed 12 percent of the world's current population (MacArthur, 2019). Hunger has been on the rise in the last past five years, and the Covid-19 pandemic is threatening the food and nutrition security up to more 132 million of people (FAO, 2020).

At the environmental level, the amount of food waste per year has an enormous impact on land, water, climate change and biodiversity (Lundie and Peters, 2005; Collins and Fairchild, 2007). In terms of greenhouse gas (GHG) emissions, the food that is lost is associated with a carbon footprint of around 1.5 gigatonnes of CO2 equivalent every year (excluding land use change) (FAO, 2020); and 24 percent of freshwater resources and 23 percent cropland used to produce food in 2011 was lost (Kummu et al., 2012). Based on the current food system trends, the future is no brighter - the negative environmental

² Solid waste refers to the range of garbage materials, arising from animal and human activities, that are discarded as unwanted or useless. Some examples of this type of waste are glass, rubber waste, plastics, food wastes, wood, paper, metals, cardboard materials, electronics as well as various hazardous wastes.

impacts could increase by 50 to 90 percent until 2050, as a result of the growing population and the greater food consumption (MacArthur, 2019).

On the economic side, food waste increases waste management costs (some examples are maintenance of landfills, transportation and operations costs, treatment costs and separation costs). The global cost of food wastage is estimated at 620 billion euros, where 60 percent comes from the U.S and Europe. At the European level, the costs of food waste were estimated to be at around 143 billion euros in 2016 where 98 billion euros (two-thirds) were from households and the second largest contributor was the food service sector (with food waste costs of 20 billion euros) (FUSIONS, 2016).

Beyond these benefits in all dimensions of the triple bottom line, there are some trends that support a better food system: consumers are changing their diet in the developed world, eating less meat, less dairy products and more plant-based foods³ (for example, the demand for non-dairy products in the US increased 61 percent over the past five years) (Mintel, 2018). This suggests that having accessible and delicious plant-based meals in the market can maintain and increase this trend (MacArthur, 2019). Simultaneously, people are more aware about where the food they eat grows, with organic food sales having a double-digit growth in Europe (Ernst & Young, 2018). And the increasing development of new technologies is creating innovative products and food systems, making it possible to grow food regeneratively and locally (such as innovations in creating sophisticated, effective and consistent organic fertilizers, biological alternatives to synthetic pesticides, application of artificial intelligence, among others) (MacArthur, 2019).

Food grows in nature, it has the ability to regenerate itself and, at the end of its life cycle, that same food becomes food for a new cycle that will begin (Macarthur, 2019). In this scenario, it is key to rethink the food system in a more regenerative way – that will result in social, environmental and economic benefits. And, as in all themes of sustainability, isolated activities are not enough to solve the problem. A multifaceted approach is required and to make a successful and effective change it needs to happen at the system level, and a food system based on the circular economy principles is one that seems to be healthier for people and for the natural environment (MacArthur, 2019), at the same time that it has economic benefits.

2.7. Sustainability in the restaurant industry

Food related scientific studies are no longer limited to food nutrition, access and distribution concerns. The social-cultural capacities of food and themes like food culture, food justice, food ethics, slow food and organic food are becoming increasingly important in a global community that is aware of the full

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³ A plant-based foods or a plant-based diet focuses on foods deriving primarily from plants, which includes not only fruits and vegetables, but also nuts, seeds, oils, whole grains, legumes, and beans, and it does not mean that people are vegetarian or vegan and never eat meat or dairy, but most of the ingredients consumed come from plants.

impacts of the ecological limits to growth (Higgins-Desbiolles & Wijesinghe, 2019). Food is starting to be seen not only as a source of nutrition knowledge, but also a motivator for civic engagement and catalyst for change (Mair et al., 2008). Simultaneously, the tourism industry and, in particularly, restaurants and cafes are one of the main wealth and employment creators in the global economy, but also one of the biggest contributors to environmental degradation and societal issues (JingJing et al., 2008), which makes them powerful influencers in rising consciousness and participation in sustainability efforts, especially in relation to food (World Travel & Tourism Council, 2017). Restaurants can be seen as a "third space" - a place between home and work - that facilitates social engagement (Hewitt, 2010), opening up the dialogue and connecting people, which can lead to a significant impact in consumers' personal eating habits and behaviors (Johnston & Baumann, 2015).

The food and restaurant industry are increasingly recognizing its ability to improve the wellbeing of the environment and society, which is evident by the growth of "green restaurants" (Hu et al., 2010). The concept of "green" in the restaurant industry is connected to principles of eco-friendliness, social justice, and health and economic development; and represents the restaurants that embrace sustainability, focusing on elements such as low pollution, energy conservation in production, usage and disposal cycle and this type of restaurants also have in consideration waste management, material production, processing, purchasing, packaging, transportation and marketing (Wang et al., 2013). At the same time, consumers are more concerned about restaurants' sustainable practices, and media are also more alert to it (Hu et al., 2010), which increases the pressure for restaurants to incorporate sustainable initiatives (Murphy & Adair, 2013).

In this context, for and non-for profits organizations begin to emerge with the purpose of helping restaurants to incorporate sustainability into their business. One of them is the Green Restaurant Association (GRA) in the United States, which has outlined three main areas in which restaurants can start to implement sustainable practices: green action (regarding energy and water efficiency and recycling, among others), green foods (emphasizing organic and local food) and green giving (focusing on donation processes). In 2009, the GRA developed a certification for restaurants (ISO 14001) that follows eight environmental categories: water efficiency, waste reduction and recycling, sustainable durable goods and building materials, sustainable food, energy, reusable and environmentally preferable disposables, chemical and pollution reduction and transparency and education (GRA, 2018).

In the United Kingdom, the Ellen MacArthur Foundation (EMF) proposes a 3R concept based on the circular economy to make the food system more sustainable: the first R is to recycle, where the leftovers produced during the production, processing and transportation stage are collected and distributed to food banks, for example; the second R is to recover, making leftovers become new products through cooking, processing and manufacturing; and the final R is to reuse, emphasizing the kitchen garbage that can be transformed into compost or renewable energy, and the redesign of products and business models

highlighting the layered cycles of repair, reuse, distribution, refurbishment, remanufacturing and recycling for used products, which reduce waste and increase the use value of raw materials. This can not only improve the information transparency in the food supply chain but also enhance the value of leftovers (Chuang et al., 2020).

Also in the United Kingdom, the Sustainable Restaurant Association (SRA) arises in order to promote sustainable practices in the restaurant industry, focusing on offering accreditation systems. Their framework sets out three areas - sourcing, society and environment – which represent a more holistic way of looking to sustainability in a restaurant and is aligned with the Triple Bottom Line approach (Higgins-Desbiolles et al., 2017). In the sourcing area, they motivate restaurants to celebrate local and seasonal ingredients, serve more vegetables and better-quality meat, source fish responsibly and support global farmers. In the society area, SRA encourages treating people fairly, supporting the community and feeding people well. And in the environmental area, the importance of valuing natural resources, reducing, reusing and recycling and wasting no food is emphasized (SRA, 2020).

For JingJing et al. (2008), a restaurant industry that strategically integrates sustainability needs to focus on eight aspects: energy, waste, water, people, strategy, transportation, procurement, and design. For these authors, it is key that a sustainable restaurant has a proactive approach to sustainable development rather than a reactive one, and it is important to educate staff and stakeholders for sustainability, involve the community, take into account all aspects of operations, and be transparent. These researchers also suggest that a sustainable restaurant should provide a safe environment, prepare fresh, organic and local dishes with a net-zero carbon emission during operational and supply chain process. Regarding waste management, restaurants must eliminate it by reducing, reusing, composting and recycling. These authors even emphasize the idea that by integrating sustainable practices, restaurants not only influence people's quality of life but also motivate employees, consumers and suppliers to adopt practices that are environmentally friendly and socially responsible. The JingJing et al. (2008) work distinguishes itself from the other studies in the restaurant sustainability area, once they recommend the development of connected networks within the restaurant industry, where restaurants in the same region can rely on the same suppliers, reducing the number of deliveries with the main purpose of dropping CO2 emissions. The authors emphasize that this information sharing should not be seen as a competitive threat, but rather a value-added resource that has not just environmental benefits but also economic cost reductions (delivery costs and prices for sustainable procurement) (JingJing et al., 2008).

Although it is clear that restaurants are an important site for implementing sustainability concerns and goals (Higgins-Desbiolles & Wijesinghe, 2019) and there are associations that want to help restaurants to become more sustainable, there is no universal and official model for doing so, nor global control guidelines that lead the integration of sustainability in the restaurant industry. Indeed, existing studies regarding to sustainable restaurants are mostly based on case studies emphasizing best practices

(Higgins-Desbiolles et al., 2014; DeMicco et al., 2014; Moskwa et al., 2014; Mai, 2019). By analyzing their findings, it is possible to extract the most commonly used sustainable practices, such as: design of the restaurant bearing in mind the natural light, heating and cooling, choosing materials carefully (e.g. using recycled materials); reduction of energy use, using renewable energy systems; waste reduction through closed loop systems using the four "Rs" (rethink, reduce, reuse and recycle), through menu planning with limited dishes, portion control and biodegradable or reusable packaging; efficient use of water and improvement of water quality by managing stormwater and wastewater; focus on local supply chains, sourcing local and seasonal foods to achieve reduction of emissions and carbon footprint; the share of knowledge about sustainability practices in online platforms, books and special events; food donations to charity; educational programs for employees and ensuring their fair treatment; maintaining good relationship with suppliers; and the establishment of fair prices.

Beyond these transversal sustainable practices, the studies of DeMicco et al. (2014), Higgins-Desbiolles et al. (2014) and Mai (2019) have singular findings. DeMicco et al. (2014) studied sustainable practices of green restaurants in Seattle, in the United States of America, and found interesting and unusual recycling practices, such as the creation of hydroponic gardens that recycle food waste and purify water waste, recycling processes that convert waste oil into biodiesel fuel, and the recycling process of carbon fiber retrieval, called pyrolis, that produces composite materials such as tables and chairs that can be used in the restaurant, made from broken ceramic plates or plastic packaging. These restaurants also implemented different sources of energy such as superheated steam, miniature wind turbines and units of solar cells, which can cut down carbon emissions and energy costs. In order to replace paper menus, the incorporation of electronic paper systems (such as digital form of menu displayed on a tablet) is another tool used. An exhibition store for customers to see and buy goods based on sustainable practices and shared knowledge and experiences that motivate others to embrace sustainability is another peculiar concept found in this study.

Higgins-Desbiolles et al. (2014) developed a research based on two sustainable Australian restaurants (Stuart Gifford and Sarah's Sister's Sustainable Café) and highlighted some practices such as passive design techniques to have low-energy use, adjustable shade screens, over-design insulation, skylights and energy-efficient lighting. The menu only offers vegetarian meals with local ingredients which benefits the community and reduces the environmental footprint, and these restaurants offer creative events and activities with the core goal of educating people on food and sustainability issues. Based on the example of these restaurants, the authors emphasize that, when a restaurant has abundant resources, it is easier to attain sustainability; but note that it is also possible for small restaurants and that they can achieve it by identifying what practices can be implemented right from the beginning that are affordable but have significant impact in the sustainable development of the business. In this scenario, the authors also stress the trade-offs that may appear, with the example of Sarah's Sister's restaurant, where they

wanted to source just organic food, but that goal was difficult to achieve with local suppliers, so they decided to prioritize the local sourcing. Higgins-Desbiolles et al. (2014) note that sustainability restaurants can not only be affordable but also profitable, illustrating the Gifford example where savings due to sustainable processes plus the green marketing advantage (the promotion of the restaurant based on its environmental benefits) represent profit for the business.

Mai (2019) studied a zero-waste restaurant called Nolla Restaurant in Helsinki that has a business model that includes technologies in its operation, optimizes resources and works closely with local farmers, providers, customers and even competitors to offer the best health and flavor experience. Knowing that the three main sources of food waste in a restaurant are food preparation (45%), customer plates (34%) and food spoilage (21%) (Waste and Resources Action Programme (WRAP), 2018) and taking into account Nolla's business model, the author suggests that restaurants must do a waste audit (recording the origin, types and amount of waste), rethink the menu design (using versatile ingredients, eliminating the dishes that sell less), decrease the meal portion size or offer different size options, invest in inventory management to calculate the exact amount of products that needs to be ordered, organize it in a FIFO (first in first out) system, pay attention to food preparation, educate chefs and encourage their creativity with the utilization of all parts of the ingredients and invest in high quality kitchen equipment (Mai, 2019). The researcher also stresses the leftover management that can be done by reintroducing it in the menu through innovative dishes, selling the leftovers at a discount price or donating them to charity. Lastly, the researcher also highlights the importance of an anti-disposable approach, eliminating one-time utensils and adopting reusable or recycled containers (Mai, 2019).

Some studies emphasize the importance of the coordination of all stakeholders in order to successfully achieve sustainable consumption and production (Govindan, 2018) and many restaurants use their sustainable practices not only for themselves, but also to influence others in various ways, and some do this through designing challenging and creative events (Higgins-Desbiolles et al., 2014), motivating their customers and suppliers, inspiring other restaurants (Higgins-Desbiolles & Wijesinghe, 2019), engaging with local communities and enhancing the local culture, environment and economy (Moskwa et al., 2014).

In sum, there exists a wide range of practices that restaurants can incorporate in order to develop a more sustainable business that vary from redesigning the processes, providing nutrition and healthy food to educating employees and other stakeholders and developing social connections. What is transversal to all studies and restaurants mentioned above is the implementation of a closed loop system and the importance of working closely and together with the various stakeholders of the restaurant business in order to successfully incorporate sustainability.

3. Methodology

This chapter presents the methodological approach used to fulfil the objectives of this dissertation: to explore and better understand the integration of sustainability into the day-to-day decisions and activities of a restaurant, having in consideration the various stakeholders of the business and their relationships, and bearing in mind the triple bottom line.

Based on these objectives, an exploratory research was carried out. Although there is some prior research on the integration of sustainability into the restaurant business, the potential tensions arising therefrom, and the role of the different stakeholders has been scarcely investigated. An exploratory research is based on small samples that provide understandings into a certain topic, which aims to discover "(...) what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2002, pp.31).

To that end, a qualitative approach was selected for this research for it allows a more deep and detailed collection of evidence (Bryman, 20101), incorporating the human experience and its different perspectives. Simultaneously, the flexible structure of qualitative research designs allows complex issues to be understood easily (Maxwell, 2012).

Below, the methodological approach applied, the processes of data collection, the sample of the study and how the data were analysed are presented.

3.1. Methodological approach

In order to gain an understanding of the research topic of how to integrate sustainability in the restaurant business, a case study methodology was selected. According to Yin (2009), a case study is defined as "(...) an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2009, pp.2), such as the connection between the restaurant business and sustainability in its three dimensions at the same time.

Case studies are particularly used to understand a complex social phenomenon such as stakeholder perspectives and relationships, primarily when the relevant behaviors cannot be manipulated; thus allowing investigators to "retain the holistic and meaningful characteristics of real-life events" (Yin, 2009, pp.2), such as the incorporation of sustainability in a restaurant. Case study research can help to illuminate certain decisions, why they were taken, how they were implemented and with what result (Schramm, 1971). In addition, it is also important to note that much of what is known about sustainability in the restaurant industries comes from case studies.

A single-case study analysis was chosen; in this situation, one which provides an accurate and comprehensive account of "an extreme case or unique case" (Yin, 2009, pp 12) – the first zero-waste

restaurant in Portugal. In addition, an embedded case study was conducted; i.e., although the case study was about a single restaurant, the analysis included multiple units of analysis, namely diverse stakeholders, with the main purpose of having an holistic and detailed vision of the restaurant studied.

It is important to note that the purpose of a case study research is not to generate a theory, which is generalizable to all populations, but rather to generate insights within the boundaries of the research setting (Saunders et al., 2009). For this study, the chosen company was Kitchen Dates, a zero-waste Portuguese restaurant.

3.2. Data Collection

Taking advantage of the unique characteristic of observing a single case as the focal point of the study along with a plurality of research methods (Yin, 2009), data was collected in multiple ways: open-ended semi-structured interviews, direct, participant-observation, and secondary data in the form of written, audio and video documentation and physical artifacts. With these multiple sources of data, we were able to develop converging lines of inquiry.

Although secondary data about the history and background of Kitchen Dates dates from June of 2019, it was collected for the purpose of the present study between December of 2020 and February of 2021 from the following sources: the restaurant's official website; 138 social media posts by Kitchen Dates and 92 followers' comments; two *questions and answers* videos by Kitchen Dates' owners; one community newsletter; 12 newspaper clippings and three other media articles; five podcast interviews; and 49 client reviews on specific restaurant review platforms.

This data was primarily used for a comprehensive presentation of the case (see chapter 4), but information from the newspaper clippings and podcasts interviews were also extracted to help to address the research questions. Although some of these documents contained subjective perspectives, methodological triangulation (the use of multiple data sources within this study of a single phenomenon) was important for a broader picture and to corroborate evidence from our interview data.

The primary data was collected through in-depth, semi-structured interviews conducted during March and May of 2021. The semi-structured typology was chosen to allow a comprehensive insight of the subject, while also enabling a flexible and organic interaction between the interviewer and the respondent. Concurrently, with this type of interviews, the researcher can have a consistent set of categories to define boundaries of what to question (Saunders et al., 2009) and the respondents can explain or build their answers without a rigid order (Bryman, 2001). In a field where there is not much research and in a study where different perspectives of the same theme are being investigated, we felt it necessary to create a flexible space during the interviews for new information to arise.

In total, six interviews were carried out with Kitchen Dates stakeholders. Because of the Covid-19 global pandemic restrictions, only one interview was able to be carried out on-site and in person - with the founders of the restaurant under study. The remaining interviews, with five key stakeholders of the restaurant (see section 3.3), were conducted by video call, through the Zoom platform. Interviews were audiotaped with interviewees' permission and were transcribed *verbatim*, and participants agreed to be identified in this thesis.

Direct and participant observation were also used in order to collect first-hand data, in the month of March of 2021. Although these types of research methods are primarily used in anthropology (DeMunck & Sobo, 1998) and less commonly used in management studies, the process of actively observing, taking part in activities and being able to carry out informal interviewing as they occur, is particularly adequate to learn more about the activities of a business in its natural setting (DeWalt & DeWalt, 2002), especially in a case study research. Using the five senses and providing a "written photography" of the situation being studied, direct observation enables the investigator to make a realistic description of the existing situation (Erlandson, Harris, Skipper & Allen, 1993). In a more immersed way, participant observation allows investigators to learn through exposure to or involvement in the day-to-day activities under study (Schensul, Schensul and LeCompte, 1999), since it requires that the researcher becomes a participant in the context or culture being observed. Participant observation allows for richly detailed description, improving the quality of data collection and its interpretation, and it facilitates the development of new research questions (DeWalt and DeWalt, 2002).

The participant observation was carried out in the Kitchen Dates restaurant in Telheiras, Lisboa, with Maria and Rui (the project founders), on a day fully dedicated to preparing food for an event. In the six hours spent there, the researcher was able to participate in the food preparation of different elements that would compose a dish that would be served in the next day. Photographs and notes of the different parts of the process were taken, as well as pictures of the restaurant area and the different kitchen accessories that contribute to a zero-waste approach in a restaurant (see Annex A).

This data source triangulation allowed us to develop a comprehensive understanding of this phenomena under study (Partton, 1999) and helped to test validity trough the convergence of information from different sources (Denzin, 1978).

3.3. Sample

To guarantee a holistic view of the integration of sustainability in the restaurant industry and to better understand it having in consideration the various stakeholders of the business and their relationships, there was an effort to interview a diversified group of stakeholders to obtain insights on this theme from different perspectives in the business. In this context, we tried to include at least one representative from

each of the main stakeholder categories of a restaurant: CEO and founders, chefs, farmers, suppliers, employees, clients, partners and colleagues from other restaurants.

An initial list of potential interviewees was made and, in some cases, the initial contact as well (e.g., with the Kitchen Dates founders). In other cases, this first contact was set-up by Rui, the founder and CEO of the restaurant studied. The invitation to the interview included an information statement, with a short summary of the topics under study, and a consent form to be signed by the interviewee (see Annex B).

In total, eight stakeholders were interviewed: Maria and Rui (Founders, CEOs and Chefs of Kitchen Dates), Catarina Pinheiro (Client and Supplier of Kitchen Dates), Ana Godinho (Farmer that worked with Kitchen Dates), Lídia Bispo and Hugo Pinto (Suppliers of Kitchen Dates), Sofia Oliveira (Former Employee of Kitchen Dates and Founder of COMVIDA restaurant - a seasonal, organic and local restaurant and grocery shop in Oeiras) and Miguel Azevedo Peres (Founder, CEO and Chef of Pigmeu restaurant – a "nose to tail⁴" restaurant in Lisbon where the menu consists of 1/3 vegetables, 1/3 giblets and 1/3 Alentejo pork meat) (Table 1). Most of the interviews lasted between 25 and 58 minutes, except the interview with the founders of the restaurant studied which lasted two hours and a half.

Name	Role in the restaurant business	Date of the interview	Duration of the interview
Maria	Founder, CEO and Chef of Kitchen Dates	March 12, 2021	2 hours and 30 minutes
Rui	Founder, CEO and Chef of Kitchen Dates		
Catarina Pinheiro	Client and Supplier of Napkins	April 2, 2021	25 minutes
Ana Godinho	Farmer of Spirulina	April 5, 2021	25 minutes
Lídia Bispo e Hugo Pinto	Suppliers of Dishware	April 7, 2021	20 minutes
Sofia Oliveira	Former Employee and Founder of COMVIDA – a seasonal,	May 10, 2021	58 minutes

⁴ A nose to tail restaurant it is a restaurant in which chefs are aiming to incorporate as much of an animal as possible into their menu, using the whole animal carcass, from the literal nose to the literal tail and everything in between.

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	organic and local restaurant and		
	grocery shop in Oeiras.		
Miguel Azevedo	Founder, CEO and Chef of	April 4, 2021	30 minutes
Peres	Pigmeu – "a nose to tail"		
	restaurant in Lisbon where the		
	menu consists of 1/3 vegetables,		
	1/3 giblets and 1/3 Alentejo pork		
	meat.		

Table 1 - List of interviewees and their respective role in the Kitchen Dates restaurant business

The questions of the scripts were identical for all stakeholders, with a few adaptations according to the role of the respondent in the business. The interviews were based on the individual guides presented in Annexes C, D, E, F, G and H, with open questions to encourage detailed and broad answers. The main purpose was to understand different perspectives of the integration of sustainability into the restaurant industry.

The interviews were divided into five main parts: the first one can be categorized as ice breaker questions, where the interviewees were asked to describe the type of work they do and how they started to work with Kitchen Dates; the second part of the guide was about their understanding of what a sustainable restaurant is and the main differences they perceive between working with a traditional and a sustainable restaurant; the third part of the interview was regarding to the main benefits and challenges of working with a sustainable restaurant; then two questions related to the role of the different stakeholders in the process of integrating sustainability in a restaurant were asked; and the interview ended with a question about how the global pandemic is affecting the integration of sustainability in this type of business.

The restaurant owners' scripts had additional questions about the possibility of having a sustainable business in the restaurant industry and the day-to-day practices that a restaurant can do to incorporate sustainability.

3.4. Data Analysis

The interviews were all manually transcribed, after which data analysis followed two stages. First, manual coding, through a thematic analysis method: primarily, notes were taken during the first reading of the data; then, some sections that appeared relevant or with potential interest were highlighted by hand; then, the data was coded, which allowed for a condensed overview of the main points of the data; following that, patterns among the topics were identified and the data combined in groups coded by each research question of this investigation.

In the second stage, the raw data was also coded with MAXQDA, a qualitative data analysis software, in order to evaluate the data and identify the most relevant and repetitive topic. The software coding process matched the manually coding, and additionally allowed us to identify the most frequently used words by the participants. This transcription, thematic analysis and coding method were used in all the data collected – primary and secondary.

In the next section, the history and the activities of the case study chosen will be briefly described to answer the dissertation questions – the case of Kitchen Dates, the first zero-waste restaurant in Portugal, an extreme and distinctive case of sustainability which can provide powerful and impactful insights to the purpose of this study.

4. Kitchen Dates - Case Context

Kitchen Dates is a sustainable food literacy project, which was responsible for the first zero-waste restaurant (of the same name) in Portugal. The Kitchen Dates restaurant worked exclusively with local and seasonal ingredients, making it a pioneer in sustainable restaurants in Portugal, insofar as they tried to incorporate the circular economy in every activity and daily tasks carried out. The idealistic duo that created this project are Maria Antunes and Rui Catalão, a Portuguese couple who lived in Amsterdam, where they became the Kitchen Dates.

4.1. The beginning

In 2016, when Maria and Rui were in Amsterdam, they started noticing the amount of unnecessary ingredients in supermarket bread. Something that they thought that should only need flour, yeast, water and salt actually had a wide range of different ingredients with strange names: preservatives, additives and even sugar. This simple awareness led them to pay attention to many other products, and this was the beginning of a drastic change in their life philosophy, daily consumption habits, preferences and professional careers. In the nutrition area, they slowly changed their diet and started to eat exclusively plant-based foods. This motivated them to new experiences with food and flavors. All this newness in their life induced curiosity in their family and friends, so Maria and Rui decided to create an Instagram account, in October of 2016, with the purpose of sharing their gastronomic experiences and their daily "dates" in the kitchen.

But their life really changed after a friend suggested they share their food with strangers through private brunches in their Amsterdam apartment. After overcoming their initial shyness and hesitations, in February 2017 Maria and Rui organized the first of what would become many homemade brunches - an event which for them was not only about plant-based, healthy and delicious food, but also a moment for sharing all the benefits and challenges of their new lifestyle. They promoted this first event on an event announcements platform (EatWith) where anyone could directly make a reservation. This specialized

platform also provided credibility to what they were doing. On the day of the event, the people who had registered appeared at their front door, paid a fixed amount for the brunch and could stay and enjoy the food that Maria and Rui made until they wanted to leave.

In June of 2017, when Maria and Rui decided to come back to their home country – Portugal – they brought these events (not only the brunches but also by now, private dinners, as well) with them to their new apartment in Campo de Ourique, in Lisboa. Here, they transformed their home into a vegan brunch supper club. Their private events, despite not having a set periodicity or a default menu, became increasingly famous, with reservations running out in minutes.

4.2. The restaurant

As the project grew, they wanted to share their food and values with more people. At the same time, the encouragement of a small but enthusiastic group of regulars who were forming a community of sorts, made them search for a bigger and better venue for their events.

The dream of creating the first zero-waste restaurant in Portugal became real through a successful crowdfunding campaign in June 2019. The main objectives of creating this crowdfunding campaign were to involve people that are interested in these themes in the creation of the restaurant, amplifying and leading to a deeper discussion about waste, the origin of food and the way people eat; and also to collect 10 million euros, although they ended up raising even more, with worldwide help from people who believed in this pioneer and uncommon restaurant concept.

The project turned into a restaurant at the end of 2019, but for Maria and Rui it was more than just that. They knew from the start that they did not want to be a typical restaurant; and even more than that, they wanted to be a part of the solution for a sustainable world, inspiring and motivating people and organizations regarding the need for change. To accomplish this, they committed themselves to six core values that they believe are key to creating a more conscious, healthier, and a more sustainable world. Those principles were: 1. Circularity - everything that enters into the restaurant is consumed, reused or composted; 2. 100% Vegetable – since they believed that a plant-based diet is the only one that has a simultaneously positive impact on human, plant and animal health; 3. Localness - all the vegetables and fruits should come from a 50 km radius, and other Portuguese ingredients that cannot be produced next to the restaurant, like almonds, come from a maximum distance of 500 km; 4. Seasonality - the restaurant menu respected the natural cycle of nature so it was different every week, reflecting what was locally produced; 5. Organic - they only established partnerships with farmers who followed organic and conscious farming⁵; 6. Transparency – they promised total transparency to their community in

health, including biodiversity, biological cycles, and soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally

⁵ "Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem

addressing the challenging zero-waste commitment and path they had chosen (e.g.: being honest when they are not able to achieve their sustainability goals).

For Kitchen Dates, these core values were the basis of everything they did and the filter for every decision they had to make: whether in the choice of ingredients, the producers, the materials used, the dishes and products created, the partnerships embraced, the workshops they carried out or the advice they offered in their consulting service.

The Kitchen Dates restaurant was located in Telheiras, near the city centre of Lisbon, with the strategic purpose of bringing together city inhabitants with farmers' and their land.

It would be easier and more inspiring for us to be in the countryside, closer to the farmers' land, but we felt that we needed to be in the city because it is here that our work makes most sense. We really want to bring the people of the city closer to famers, so they can understand the importance of working closely with the producers and all the process that is hidden in supermarkets. (Kitchen Dates [kitchendates]. 2020, May 5. Question and Answers Kitchen Dates video)

The restaurant worked mostly from Wednesday to Saturday, serving open door lunches and dinners, and occasional one-off private events, such as their famous brunches or dinners.

Maria and Rui do not have an academic background in culinary or food business, so every product and recipe they created and developed was simply based on their experience, research, intuition and interaction with local producers.

More than a typical restaurant, Kitchen Dates' vision was not limited to serving delicious meals. Maria and Rui also created a full social and gastronomic experience: the restaurant had a single, long table for all the clients to sit at, and share not only their meal together but also their stories, experiences, beliefs and lifestyles. At the beginning and end of every meal, Maria and Rui would join in and share their mission, some stories and even some recipes with the people they called their community, with the main ambition of raising awareness and inspiring each person that visited them to walk towards a more sustainable world.

What we do with Kitchen Dates is an extreme concept. Our ambition is not to demand that every person that follows us be at that limit too. What we want is to raise awareness and inspire people to walk as far as possible towards that limit. (Kitchen Dates [kitchendates]. 2020, May 5. Question and Answers Kitchen Dates video).

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adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system" (FAO/WHO Codex Alimentarius Commission, 1999).

Kitchen Dates also had a small grocery store where they would sell some of their home-made products, for people to enjoy at home. They also offered a set of online workshops, where Maria and Rui would share their knowledge in a more structured way, in order to help more people to eat and cook in a more conscious, healthy and sustainable way, with local and seasonal ingredients, producing no waste.

4.3. The impact of Covid-19 global pandemic in the restaurant

The Covid-19 global pandemic had a massive impact on the restaurant business and Kitchen Dates was not an exception. The concept and essence of Kitchen Dates – uniting strangers around a single table sharing food, ideas and experiences – was effectively made impossible.

When Covid-19 struck in Portugal, in March of 2020, the restaurant was in the process of recruiting two people to join the staff, a process that had to be put on hold and left Maria and Rui to face the pandemic alone.

On the 18th of March, a State of Emergency was decreed in Portugal, setting in motion the first lockdown and leading restaurants to close their doors. In response to the restrictions of the pandemic, Kitchen Dates reinvented themselves. The first step was takeaway meals and home deliveries, with the owners carrying out the distribution of the meals themselves, in a bid to ensure the highest health and safety standards and maintain their proximity to their clients. Additional projects to foster this connection with their customers included online workshops and Lockdown Dinners, where people bought food that was already pre-cooked but needed to be finished, and they did it at home with Kitchen Dates via Instagram lives.

After the first lockdown, Kitchen Dates reopened. Their single table was occupied only by a third of the people and they put borrowed individual tables on the outside of the restaurant to comply with the pandemic safety rules. Now that people could not share the table with strangers, the menu was designed with plates to share.

To make it possible for business to survive after the lockdown, Maria and Rui were working every single day of the week, 14 to 16 hours a day, neglecting their physical, mental and emotional health, always hoping that everything would get better. But, in January 2021, the pandemic got worse in Portugal and a second lockdown started. During this second lockdown, on the 9th of February, Maria and Rui announced in their social media that they had decided to put an end to one of the Kitchen Dates' chapters, by closing the restaurant.

It is worth noting that the restaurant was still profitable this time. However, in a Questions and Answers video carried out in Kitchen Dates' social media, on the day after their announcement, Maria and Rui explained that for them it did not make sense to keep a restaurant based on conscious, healthy and sustainable principles when their own health and personal sustainability were being neglected.

When we are promoting sustainability, health and high-quality food and we are not able to do that ourselves, we think that this is a sign that something needs to change. (Kitchen Dates [kitchendates]. 2021, February 10. May 5. Question and Answers Kitchen Dates video).

At the same time, the restaurant – a space that had been created as a vehicle to materialize the mission of creating a more sustainable world through food literacy - had been reduced to a "simple" restaurant, which was exactly the opposite of what Maria and Rui wanted from the start.

Thus, the owners announced that after 16 months proving that it is possible to have a zero-waste restaurant that uses exclusively local, seasonal and plant-based ingredients, with a close relationship with producers and which is economically sustainable at the same time, the Kitchen Dates food literacy and sustainability project would continue to materialize its mission but in different formats, which did not contemplate the restaurant.

First of all, we see ourselves as a food literacy project that also had a space that in legal terms was a restaurant, that overlapped all the other dimensions of the project. (...) what we are doing now is turning off the restaurant side, that was the most visible side, and materializing our mission through other formats and concepts (...) and we believe that, with the time that the restaurant stole from us, we will have more time to create a deeper and wider impact. (Kitchen Dates [kitchendates]. 2021, February 10. May 5. Question and Answers Kitchen Dates video)

5. Findings and Discussion

In order to understand, from the perspective of its various stakeholders, how a restaurant can incorporate sustainability into its business, and the tensions, challenges and benefits resulting therefrom, secondary data was analyzed, and semi-structured interviews were conducted with the different actors of the Kitchen Dates restaurant business, giving rise to the results and discussion presented in this chapter.

5.1. A Sustainable Restaurant

Understanding how to incorporate sustainability into the restaurant business required first a perception of what Kitchen Dates and their stakeholders understood a sustainable restaurant to be. Here, three different topics emerged: the definition of a sustainable restaurant, the incorporation of sustainability as a process or a goal to be achieved and the use of the term "sustainable restaurant".

Although the formal definition of sustainable development as the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p. 5) is consensual, we were interested to know how respondents understood its application to the rest of the business. Interestingly, none of them had an immediate response, and they needed instead a moment's reflection before answering.

Notwithstanding, the definitions presented all converged around the three dimensions of sustainability, the environmental in particular. For instance, almost all the respondents referred the importance of reducing business' carbon footprint to the minimum possible in all aspects of the operation (food, energy, water, packaging, among others).

It is a restaurant that puts into practice solutions that minimize the impact of the carbon footprint in all the elements of the restaurant. (Maria, Kitchen Dates Owner)

In addition, different stakeholders brought other issues to bear, such as the notions of closing the loop and circular economy: It is a restaurant that reintroduces the products back into the loop, into the circular economy. (Hugo, Kitchen Dates Supplier)

The majority of respondents also highlighted the importance of using local and seasonal ingredients, and Rui and Maria from Kitchen Dates also enhanced that the choice of organic ingredients and following a plant-based diet is very important in order to be as sustainable as possible.

It is a restaurant that tends to be plant-based, regardless of whether animal products are used or not. It tends to be local. And it tends to be organic. (Rui, Kitchen Dates Owner)

Both the owners of Kitchen Dates and the owner of Pigmeu restaurant underlined the importance of knowing everything that is in the restaurant pantry, which requires a greater involvement by the managers.

First of all, it's a restaurant that knows and understands everything that's in its pantry. In other words, it knows where it comes from, who made it and how this was done. That's the basic principle. (...) And it is a restaurant that is aware of what it is doing, of the impact its work has on nature, on the environment, but also on the community, on the people who work at the restaurant and who participate in the business (Miguel, Pigmeu Owner).

Our findings are consistent with Petrini & Pozzebon's (2010) and Cici & D'Isanto's (2017) work, which describes sustainable businesses as focused on a more integrated and holistic approach, embracing all dimensions of sustainability performance and the various stakeholders, rather than isolated and opportunistic activities. But this difficulty in defining a sustainable restaurant is also consistent with the work of Bonn & Fisher (2011) as they argue that, for most of the companies, the biggest challenge is still understanding how to really make their businesses more sustainable.

However, there was not consensus with regard to the extent to which these elements need to be applied. Whereas some thought sustainability is a process and believe that for a restaurant to be considered sustainable it does not need to be 100% sustainable in every aspect of the business, the owners of Kitchen Dates in particular saw such flexibility as a slippery slope:

(...) the phrase "tends to be" has a problem, which is, you are not committing to anything 100%, so if one day you feel like being closer to the non-local, everything is ok (...). When you concretely assume your rules, the rules of the game, you are also putting yourself in a position where others have the power to judge you. A fundamental thing for a restaurant to be able to claim this position of sustainability is to be transparent and you must expose yourself, so that others can judge everything you are doing. (Rui, Kitchen Dates Owner)

Businesses have been increasingly using the term "sustainability" in response to the growing pressures of their stakeholders (Werbach, 2009), but for Maria and Rui, the designation of "sustainable" business or restaurant is not so clear, because most of the times it depends on the interpretation of the consumer. And, for them, the usage of this word has become too commonplace and inaccurate, making it urgent the need for accountability in this topic.

What does sustainable business mean? How do you measure whether a business is sustainable or not? (...) Ultimately, all this boils down to a question of consistency. I think there has to be consistency. When you apply a certain term, whether to yourself or to something else, there must be consistency, and when using the term sustainable restaurant, we have to be very sure of what we are doing. (Rui, Kitchen Dates Owner)

Since Kitchen Dates do not believe in the flexibility of sustainability, they end up having a higher standard of what can be called "sustainable". On one hand, these high standards are good to increase the level of commitment with the theme but, on the other hand, this requirement can be demotivating for restaurant owners who are taking their first steps towards sustainability.

But Kitchen Dates view appears consistent with the Elkington's (2018) recall of the Triple Bottom Line concept, emphasizing that managers sometimes use the term sustainability having profit as the main purpose, forgetting about the people and the environment. For Kitchen Dates owners, restaurants, and businesses in general, should use the term "sustainable" carefully, as it will signal to consumers that sustainability is what they are doing.

Although the world is witnessing an increase in sustainability concerns, restaurant managers should rethink if "sustainable" is the appropriate term to use when they are naming the type of business they do, once sustainability studies understand it as the interdependence between the economic, social and environmental dimensions and how a business can be sustained over time (Bansal & Song, 2017).

5.2. The Day-to-day Activities that a Restaurant Can Incorporate to be More Sustainable

Trying to understand how to incorporate sustainability into the restaurant business, we were interested to break this down into day-to-day activities. Here we wanted to have two different perspectives: the activities that restaurants can adopt when they incorporate sustainability right from the beginning of

their lifetime (following the Kitchen Dates example) and also those changes that can be made in a restaurant that is already doing business (looking at Pigmeu restaurant experience).

Interestingly, when asked about day-to-day activities, many of the respondents pointed first to the issue of culture and what binds the diverse activities together. This is consistent with the Senge and Castedt's (2001) perspective on the role of culture in promoting sustainability and the role of curiosity, exploration and flexibility in particular. Kitchen Dates referred almost exactly the same characteristics:

A frequent question that people ask is 'how is it possible to have a restaurant without a garbage can?', and we are not going to lie: it is not easy. (...) it requires effort, persistence, flexibility, creativity, and the desire to not stay in your comfort zone. (Kitchen Dates. 2021, February 2. Our Story)

In the context of the restaurant business this is particularly relevant, because in most traditional restaurants the work is based on stability and control, and so the required change is significant.

Additionally, working in a zero-waste system imposes a culture of learning and asking questions, where it is key rethinking everything: from the origin of the ingredients, the way they are produced, the way they travel until arriving at the restaurant, to how they are packaged, among other elements.

Question if you really need that product, that quality, if the product is exactly what you were looking for, if the ingredients that you are choosing can be used as a whole or if you need to throw out some of parts. For us, raising questions is the key point in the relationship with sustainability. (Rui, Kitchen Dates (2020, January 15). Conheça o Kitchen Dates, o primeiro restaurante português sem caixote do lixo. Sapo Mood)

Incorporating sustainability in a restaurant implies altering the way things are done at every step of the supply chain. At Kitchen Dates, for instance, this meant the choice of the ingredients, being all plant-based, organic and came directly from local producers. This is aligned with the demand of consumers that are changing their diet eating less meat, less dairy products, and more plant-based foods (Mintel, 2018). At the same time, the choice of local and organic goods is also associated with the increasing awareness of consumers about where the food they eat grows, with organic food sales having a double-digit growth in Europe (Ernst & Young, 2018).

To follow their core principle of 'localness', some ingredients were not allowed to enter the kitchen, such as coffee, cocoa, spices, or cashew nuts, for example, since these ingredients need to travel long distances to arrive in Portugal and so they have a high carbon footprint, which greatly harms the environment. This suggests that to make it possible to work with local producers, the proximity between all stakeholders of the business and short circuits are key in this process. Honor seasonality and having a menu that reflects what the farmers' land was giving at any given point in time is another key practice that must be adopted in order to be more sustainable.

To ensure that all sustainability principles were met and with the purpose of creating strong links with their stakeholders, Kitchen Dates made a point of visiting all their producers and suppliers to have a clear understanding of how they manage their resources (such as water, soil, energy and human resources) and would only work with them if they did so in a sustainable and conscious way.

More than asking the producers questions from afar, we always want to meet them and meet their land. We work with a lot of producers, some of them with just one ingredient, and we have already visited 90% of them. We try to visit them all and some of them more than once. We do this because we believe that this is the only way to understand how they are managing their resources. (Maria, Kitchen Dates [kitchendates]. 2020, May 5. Question and Answers Kitchen Dates video)

In order not to produce any unnecessary waste, the choice of the packaging is also important. At Kitchen Dates all the raw materials came in reusable containers such as boxes, bags, flasks and jars. To store the ingredients and the products, Kitchen Dates did not work with food bags or any single-use containers. They stored everything in jars and resistant and second hand, reusable plastic boxes; and this required some previous planning to ensure that there was space for all the ingredients in the fridge.

We have containers that travel between us and our producers and every time we make an order, or we receive a delivery, everything comes in these containers. (...) Since we work exclusively with local producers, we break down the barrier of all the packaging that is needed to distribute food around the world, traveling long distances. (Rui, Kitchen Dates. 2019, October. in TSF Verdes Hábitos [Audio podcast])

And to make sure that the zero-waste principle was met, packaging only existed at Kitchen Dates when it was really needed and always respecting a circular system. The products that need packaging, such as a jar for the nut butter, for example, were sold with an associated tare of one euro to motivate the clients to return the respective jar. The idea was that the packaging belonged to Kitchen Dates and not the client and was only borrowed by the customer temporarily.

Make every processed product from scratch is another day-to-day activity that a restaurant must implement to be more sustainable. At Kitchen Dates, they received the ingredients in their most natural and raw form and created everything from there: they grinded the grains, made their own sweeteners, and they created their own fermented products. This can be an important sustainability practice in restaurants, as also suggested by Stahel (1982), with potential economic advantages as well, since it is possible to create different recipes and products using the same ingredients, decreasing the demand for more goods. However, making everything from scratch is not an easy thing to do and requires a large investment of time and planning.

More recently, in October 2020, Maria and Rui also acquired a plot of land to create a vegetable garden near the restaurant, which would allow them to plant some of the ingredients they needed the most, which is another good insight that a restaurant can incorporate to be more sustainable.

At Kitchen Dates restaurant, everything that could not be eaten or reused was transformed into compost by an electric composter which transformed the uneaten food in organic matter in just 24 hours. The compost was then delivered back to the producers, who would use it as a natural fertilizer for their soil.

This is not random spinach. This spinach grew in land fed only by our electric composter. The leaves are beautiful, tender and full of flavor and they are ready to go into our burrito this week. This is circular economy: respecting and promoting the natural cycle. (Kitchen Dates [kitchendates]. 2019, June 9. Instagram)

With the adoption of this simple equipment, it is possible to close the loop and contribute to a more circular system, as was also suggested by Higgins-Desbiolles et al., 2014. This zero-waste approach represents a shift from the traditional way of seeing waste as a norm, to an integrated system in which everything has multiple uses (Song et al., 2017).

Another point that deserves attention is the quantity of food per plate, when serving clients, as it is not worth serving a big plate of food if the majority of people will just eat half of it and will not take the other half home. This portion control perspective is aligned with DeMicco et al. (2014) who point to it as a crucial sustainable practice to reduce food waste. At Kitchen Dates restaurant, they served smaller portions of food per plate, and customers could take home any left-over of their dishes.

Our findings also show that the practices that are needed to be adopted to create a sustainable restaurant are not just in the kitchen. These results suggest that a multifaceted approach is required, and that it is essential to look closely and critically not only at each area of the business but also at each of its procedures, once waste in the restaurant business does not only come from the food and the packaging of the products; and therefore sustainability concerns must go beyond that.

At Kitchen Dates, for instance, this extended to the entire décor and accessories used: the single table was made from leftover wood; all the chairs were purchased second hand; the knives were created and forged by hand using olive wood waste; the napkins were not only made out of fabric leftovers but were also very small (7x7 centimeters) compared with the typical ones, albeit sufficient for a single meal, and making it worth the regular washes.

Sustainability can also be seen in their use of water and energy: in the bathroom, there was a system for reusing water from the lavatory to flush the toilet and, at the restaurant, everything worked with electric energy from 100% renewable sources, without the need for gas.

The day-to-day activities went beyond the process itself and also extended to communication. With the main purpose of sharing their knowledge and experience of this zero-waste lifestyle, Maria and Rui also created a set of online events and workshops to help people to eat and cook with local ingredients in a more conscious, healthy, and sustainable way, where they explained how to make some of their best-selling products to motivate people to make delicious food from parts of the ingredients that would otherwise be wasted.

We felt that one of the most efficient ways of accomplishing our mission is through sharing our knowledge and this happened a lot during our closed doors' brunches, but during this global pandemic we cannot do it anymore (...) and it became clear that workshops could be one interesting solution for us to continue to serve our community. (Kitchen Dates. 2020, January. Blog Do Bem)

Events and workshops can also be seen as a day-to-day activity that a restaurant can implement while integrating sustainability in its business. During the past few years of Kitchen Dates, Maria and Rui have also done some public speaking and masterclasses at events and conferences, always sharing their vision about the best diet for people and for the planet, their thoughts about food sources, production methods, short production circuits, short distribution channels, food waste and circular economy, among other topics. Because, for them, this proximity between all stakeholders is a key element that not only helps people to gain more knowledge about food but also helps the local economy.

Kitchen Dates' ultimate goal has always been to inspire people to make small or big changes that have a positive impact and contribute to build a more sustainable world. Maria and Rui, in a similar vein to Hewiitt (2010) and Johnston & Baumann (2015) work, see restaurants as a place between home and work that facilitate social engagement, opening up dialogue and connecting people, which can lead to a significant impact in consumers' personal eating habits and behaviors, being very important for restaurants to take advantage of their privileged space. And all of these practices and initiatives that Kitchen Dates followed ascertain the arguments of Higgins-Desbiolles et al. (2014), Moskwa et al. (2014) and Higgins-Desbiolles & Wijesinghe (2019), that restaurants can use their sustainable practices not only for themselves, but also to influence others in various ways, even through creative events, motivating their customers and suppliers, inspiring other restaurants, engaging with local communities and enhancing the local culture, environment and economy.

In order to understand what type of practices a restaurant that is not sustainable from its origin can incorporate to integrate sustainability, Miguel from Pigmeu restaurant shared some of the changes they are making in the restaurant, even though it is a place where meat is the ingredient that shines. In his restaurant, they changed their ingredients to organic ones, including organic meat; they started to buy whole ingredients (including whole pigs) and using every part of them; and now one third of their menu

is made with food that would otherwise be wasted. They no longer use processed food and work closely with local farmers that also have sustainable practices.

We are a "nose to tail" restaurant, not only in the meat but also in every ingredient, in order to create as little waste as possible (...) We started to collaborate with suppliers and farmers that work with sustainable farming methods (such as agroecology) and make a more regenerative work with the main goal of restoring the ecosystems that surround the food production (Miguel, Pigmeu Owner).

Despite all these efforts, Miguel recognizes that his restaurant still has a long way to go in terms of sustainability, especially regarding disposable plastic packaging. But for him there are four key changes that a typical restaurant can make in order to be more sustainable: choosing the people that work with them and for them wisely, knowing them first; working with local farmers and suppliers that have best agricultural practices; reducing the food waste; and knowing exactly from where they came from and how all the ingredients and products that are in the restaurant pantry and refrigerator were made.

If we only work with people and products that we know, this will have an immediate positive impact in our food consumption (...) it's not about buying anything at any price, it is about knowing how the ingredient was produced and what is its impact. (Miguel, Pigmeu Owner)

Albeit our results suggest that it can be easier to incorporate sustainability in the restaurant business when the restaurant is created with sustainable practices in mind from the outset, they also indicate that it is possible, even if it is more challenging, to incorporate sustainability in a restaurant that is already in the business. The requirement is to rethink every aspect of the business, making changes, even if they are small ones and even if they take time. It is key to accept that incorporating sustainability in a business is a long-term process that may not be a fixed end goal, as new developments that allow businesses to be more sustainable emerge over time; therefore, having a critical, open and flexible mind and way of working is fundamental.

Isolated activities are not enough to make a successful and effective change in the restaurant business, as Macarthur (2019) had already warned, and it is key to establish close relationships with all stakeholders of the business. And although integrating sustainability implies extra effort, requiring a large investment in time, not only in planning and preparing food, but also in creating closer ties with all the stakeholders of the supply chain, the mindset of sustainable restaurant seems to be a mindset of service, having as a higher purpose serving their community in the best way they can.

5.3. The Benefits of a Sustainable Restaurant

With the purpose of understanding the main benefits of incorporating sustainability into the restaurant industry, we asked the owners the benefits of having a sustainable restaurant to them and the various

stakeholders the benefits of working with a sustainable restaurant. Unexpectedly, the answers were very diverse among the Kitchen Dates stakeholders.

The owners very quickly answered cost savings. Although they recognized that a greater investment in staff may be necessary, since it is important to make everything from scratch and this takes time and human resources, they also noted that there were meaningful savings, mainly in raw materials (since they use every part of each ingredient, making the most of its potential) and disposable materials (such as vacuum bags, cling film, aluminum paper, baking paper, garbage bags, among others) that restaurants typically use. These results are consistent with Korhonen et al.'s (2018) work that noted that costs are reduced when restaurants incorporate sustainability into their business.

Although it is not mentioned in the existing literature as one of the benefits of incorporating sustainability in the restaurant business, the stimulation of creativity that is needed to work with fewer ingredients was mentioned in our findings as an advantage. For most people, having less ingredients to work with might be limiting, but the Kitchen Dates owners proposed that it is all about changing perspective – for them it was much easier to create a menu with fewer ingredients and they said that this would also provide a distinctiveness advantage, because they end up creating unusual dishes.

The fact that we have less ingredients inspires us to be even more creative – we need to invent a dish that is not obvious, that will surprise the clients and that will take us to the next level. This is the most challenging part of our work but also the most interesting one. (Rui, Kitchen Dates. 2020, April. in À Prova [Audio podcast])

Another advantage of having a sustainable restaurant that was noted by the owners is the increase in brand equity both for the restaurant and its partners, serving also as a strong marketing tool.

We think that we benefit a lot from the marketing point of view, because our commitment to being the most sustainable we can be in every part of the business was very well received by many people, and made them constantly remember us even without us communicating all the time. (Rui, Kitchen Dates Owner)

This was also mentioned by the supplier interviewed and he said their brand value had increased since they started to work with Kitchen Dates and they even amplified their range of action, since other sustainable projects also wanted to start to work with them.

From Maria and Rui's perspective, when a business has a set of values that goes beyond profit, such as sustainability, the value of the brand increases. And, in their point of view, people tend to prefer businesses that speak to their heart, and when this happens, the word of mouth from the customers can be the best advertising a restaurant can have. This also ends up being reflected through the employees, with human resources being another main benefit of having a sustainable restaurant noted by the owners,

not only because of their commitment but also because of the sense of community that is created between everyone working at the restaurant.

Having a restaurant truly aware of its ecological footprint ends up attracting dedicated employees who want to be part of the project, creating a sense of community, and that also positively influences the customers. (Rui, Kitchen Dates Owner)

Indeed, this connection that is created between a sustainable restaurant, its customers and its stakeholders was highlighted as a benefit by all three restaurant owners, especially in contrast with the typically transactional nature of the restaurant industry, where there is a lot of turnover and it is often quite hard to establish an emotional relationship between people.

The feeling that we are doing the right thing, connected with our core values, makes people around us not only realize and understand what we are doing but also relate to that and support us and join us and become part of this community. (Miguel, Pigmeu Owner)

In this atmosphere where Maria and Rui are open to teach everything they know, Kitchen Dates owners became a true inspiration for sustainable changes in a lot of people's daily lives, which seems to be an advantage to the stakeholders who work with sustainable restaurants.

They inspired me to live a more thoughtful and sustainable life (...) and this made me grow a lot and enabled me to share a little bit of their message with other people who don't have access to this information. (Catarina, Kitchen Dates Client)

With Maria from Kitchen Dates, I learned a lot of things about how to adapt hygiene and food safety rules to sustainable practices (...) for me, working with them, it was not just seeing how they inspire their clients, it was also seeing how they are always ready to teach everything they know to everyone. (Ana, Kitchen Dates Farmer)

If I am working in a place with sustainable practices, it's easier for me to adopt the same practices at home. (Sofia, Kitchen Dates Former Employee)

These findings are consistent with Korhonen et al.'s (2018) perspective that a sustainable restaurant is also able to build a community culture, creating an atmosphere that encourages all stakeholders to be more aware of sustainability. And it is interesting to note that the stakeholders interviewed did not focus on the arguably more obvious environmental advantages when asked about the benefits of incorporating sustainability in its restaurant, but instead gave special emphasis to the social and economic dimensions of sustainability, which suggests that when a restaurant incorporates sustainability in its business, the benefits are transversal between every dimension of sustainability, not only for the restaurant owners but for the diverse stakeholders in the supply chain.

5.4. The Challenges of a Sustainable Restaurant and How to Overcome Them

Although in several studies the integration of sustainability has been mentioned as a challenging process (Higgins-Desbiolles et al., 2014), these challenges have not been clearly identified in the existing literature. Thus, we were interested to know the stakeholders' perspectives on the main challenges of integrating sustainability in a restaurant. This was posed to Kitchen Dates stakeholders and to the chefs and restaurant owners interviewed and surprisingly, given their passion for the topic, they were very clear that incorporating sustainability in the restaurant industry, although possible and a worthy endeavor, it is not always an easy thing to do.

First, all of them emphasized how complex it is to find local and sustainable raw materials.

Things that we thought that Portugal would have in large quantities, it was not like that after all, particularly when we also want ingredients that are produced locally and in a conscious and organic way. (Rui, Kitchen Dates. 2019, October. in TSF Verdes Hábitos [Audio podcast]).

Another challenging thing that was mentioned by the chefs was the level of creativity required to constantly develop new dishes with seasonal ingredients, and the challenge of creating dishes that people would like, without some key elements. Interestingly, the owners noted it as a benefit; the chefs see it as challenge and naturally it can be both, and that's likely the case.

A lot of people are used to eating soy sauce, and if you want to create some recipe with Asian inspiration, the soy sauce will be missed and in terms of taste it's difficult to substitute it. Or turmeric, or ginger, or curry, for example, if you want to make an Indian style dish. (Sofia, COMVIDA Owner)

At the same time, one of the main aims of a sustainable restaurant is to work with seasonal ingredients, which requires constant changes in the menu. For the restaurant owners and chefs interviewed, designing a non-fixed menu is a topic that can be complex, because it is not possible to have a fixed menu or even a Summer or Winter menu when the restaurant works exclusively with seasonal ingredients. This is because during the same season, especially in Portugal, there are different ingredients in different months of each season. Nonetheless, according to Rui, the menu is only a challenge in the beginning.

Every week, every day or every fortnight, you need to rethink the menu, and your starting point needs to be the inputs you receive from the farmers. They tell you what their land will give in the next two or three weeks, and at the same time you are already aware of what will run out of season and what will become in season in the meantime, so you create your own temporary menu according to this. (Rui, Kitchen Dates Owner)

Another challenge that was mentioned by some of the respondents was the composting process and its learning curve.

(...) the Kitchen Dates restaurant had a compost and we needed to learn what could go to the compost and what could not go, and how we should separate the waste... And learning those types of procedures can be challenging in the beginning. (Sofia, Kitchen Dates Former Employee)

Another challenge to incorporate more sustainable practices can be customers' resistance to some types of sustainable practices, such as the use of non-typical parts of some ingredients in particular dishes (such as carrot greens or leek roots) or the price that can sometimes be higher.

It's challenging, especially because of the price barrier. If you want to do things right, using the best local ingredients, paying fair wages, and paying all the taxes, the price will be higher, and people still don't understand and value that. (Miguel, Pigmeu Owner)

The storage space of a sustainable restaurant can be a challenge too, because this type of restaurants typically uses boxes and jars to store their ingredients, instead of disposable vacuum bags, which allow for the reduction of the space, but they are not so sustainable.

We use a lot of jars and boxes to store our ingredients and sometimes they are not full, so they occupy a greater volume inside the fridge or freezer than they would if you removed all the unnecessary air inside. (Rui, Kitchen Dates Owner)

Although there are reusable solutions for these vacuum bags in the market, they are still not economically sustainable for most restaurants and homes.

The owner of COMVIDA restaurant also stressed that having a sustainable restaurant requires more time to prepare all the food, since the majority of products are made from scratch.

If you want to avoid disposable packaging you need to make everything you can from scratch: your own tomato sauce, your own plant-based milk, your own bread, your own sweeteners... so you need a lot of hours to work on that. (Sofia, COMVIDA Owner)

We were also interested in the perspective of outside stakeholders about the main challenges of working with a sustainable restaurant, and they gave a unanimous answer: meeting all the sustainability requirements that the restaurants have.

Sometimes we tend to skip parts of the production process, making it not so eco-friendly... And when we are working with sustainable restaurants, we make all the effort to fulfill their standards (...) it makes us more demanding in the whole process. (Hugo, Kitchen Dates Supplier)

Kitchen Dates have high sustainability standards that they want to see fulfilled, which is challenging for farmers. I need to produce my products in a certain way to meet their

standards... their standards that ultimately should be the standards of all of us (...) but it's a good way of creating commitment on the producer's side. (Ana, Kitchen Dates Farmer)

Nonetheless, the stakeholders stressed that this challenge was relatively easily overcome in the case of their work with Kitchen Dates, because Maria and Rui devoted time explaining and teaching them the small changes in their processes that they could make in order to be more sustainable and many times they were able to find solutions to their challenges together.

Although these day-to-day practical challenges are very relevant and illustrate the complexity of integrating sustainability in a restaurant, for Rui, the biggest challenge was psychological - fighting the habits that are already rooted in people's minds.

The natural human tendency is to fall back to old habits (...) and we felt it with some people that worked with us. They had had cooking courses or experience in this area, but the fact that there was no paper roll in the kitchen was blowing their minds. (Rui, Kitchen Dates Owner)

This is the main reason why most of the respondents mentioned that it is easier to start a sustainable restaurant from square one, when comparing to an already existing, traditional restaurant that is trying to incorporate sustainable practices – people do not have non-sustainable habits already rooted, and they can create sustainable habits from the get-go.

In the current study we see that for restaurant owners the main challenges are related to finding local ingredients and sustainable farmers, the preparation of food and psychological barriers, with this being the most challenging one. For the stakeholders of a sustainable restaurant the main challenge presented was to meet all the sustainable requirements that a restaurant that incorporates sustainability has. For Maria and Rui, the key to overcoming all these obstacles is the clear definition of rules and standards for the business, and ensuring that all the decisions are made around them.

The definition of rules is very important; the problem is that most people that work in the restaurant business don't have time to do this. That's why we feel that our work can be essential because now we can show to other restaurants the solutions to their sustainability challenges (...). (Rui, Kitchen Dates Owner)

5.5. The tensions between the various dimensions of sustainability

Although the environmental dimension of sustainability is the first one that usually comes to people's minds, when someone wants to integrate sustainability into the restaurant business, it is key to also take into consideration the social and the economic dimensions of the concept. In order to better understand the tensions that may arise during this integration, we asked respondents what are the daily sustainable practices that have a win-win effect among the different sides of sustainability (i.e. those that are both social, economically and environmentally sustainable) and in which ones they felt that there were trade-offs between them.

Regarding the practices that have a win-win relationship, Maria from Kitchen Dates quickly answered the portion of food served to the client, as this is a simple practice which ensures that the client is pleased, everything on the plate is eaten and that there is no food waste or any waste that needs to go to compost.

I think people in general feel really good when they can finish all the food they have in the plate without wasting anything. They are socially ashamed, but they are upset because they leave food in the plate. (Maria, Kitchen Dates Owner).

Another practice that was seen as having a win-win relationship for Kitchen Dates was their jars system with deposit or the single box to package the goods from the farmers and suppliers. Here, the packaging can be reused endless times because it is made from durable material, it has the economic advantage of cost saving, since it is no longer necessary to constantly buy more boxes, and it also has the social part of engaging people.

(...) Assuming that you use the jars many times, the cost that you have is smaller. From the social point of view, I think it's a good way for you to maintain that spirit of community, because it's almost like we're delivering something, and if it's a returning customer who has to return the jar, he's also giving something back. And a closer relationship is cultivated there, which makes everyone feel part of this. (Rui, Kitchen Dates Owner)

Although some authors such as Murray et al. (2015) and Geissdoerfer et al. (2017) used to criticize that the Circular Economy seems to prioritize economic systems focusing on environmental benefits with only implicit social gains, our findings suggest that a direct social connection is created between the various actors in the food chain due to simple Circular Economy practices, since a knowledge exchange relationship is created between them.

When answering about the trade-offs that arise during the process of creating a sustainable restaurant, Maria and Rui agreed that all the products that needed to be excluded in order to achieve their principle of 100% local products were always a big trade-off. When asked about how these trade-offs can be overcome, Maria and Rui mentioned again that the secret is to define a clear set of rules and be consistent with that.

Be consistent, from the beginning to the end. And it becomes very easy (...) Because whenever a question arises you can go to your rule book, which doesn't have to be physical, and understand if it matches all the rules. If it matches, you can go forward, otherwise you can't. And then, with these rules it's very easy. (Rui, Kitchen Dates Owner)

Although some authors had proposed some strategies to prioritize stakeholder concerns when trade-offs arise, such as Chandler and Werther's (2014) Model of Stakeholder Prioritization and the CSR filter, that can also help managers in their day-to-day decision making and in the process of managing different tensions, and although in past studies it has been underlined the importance of a strong leadership and

an organization vision that reflects the firms' commitment to sustainability (Bonn & Fisher, 2011; Epstein, 2010) as key determinants in successfully managing the trade-offs that will appear between the social, environmental and economical dimensions of a business, our results appear to add a new variable to this list: creating a clear set of sustainable rules can be an effective tool to stay committed to its sustainable principles when trade-offs arise.

Thus, in the Kitchen Dates example, they were able to successfully reconcile the three dimensions of sustainability:

Few restaurants can say that they are economically sustainable in their first year and we were economically sustainable since the first month of operation. And this is also a proof that this concept is feasible. (Kitchen Dates [kitchendates]. 2021, February 10. Um Fim que Não é um Fim. Instagram video).

5.6. The Role of the Different Stakeholders

Stakeholders are fundamental to a successful implementation of sustainability into a firm (Bansal, 2003), so we wanted to understand how these dynamics work and the role of each stakeholder in the context of Kitchen Dates.

From the outset, the owners noted that they could not have done this alone. A sustainable and zero-waste restaurant would not have been possible without the help of the various stakeholders of the business, whether they are farmers, suppliers, employees, clients, or colleagues of the restaurant area.

The success of our mission depends on much more than just our work. We need producers and farmers that make a conscious work, with respect for the environment and with long-term vision. We need people around us that understand such practices, people who value and empower them to give this greater importance to positively inspire more and more people. (Rui, Kitchen Dates Owner)

We also asked stakeholders regarding their role in integrating sustainability in the restaurant business and they all recognised their value in the process and shared their pride knowing that restaurants have the same care and respect for the product that they had during its production.

Because the raw material for a restaurant is the production of various farmers (...) The care during the production of the raw materials will increase the quality and decrease the footprint that this product has later in the restaurant business too. (Ana, Kitchen Dates Farmer)

Product quality is undoubtedly a supplier's responsibility, that is, we can make money with dishes that break down and go to waste. But we try to make everything with a quality that will last for several years... this is, for sure, the producers and suppliers' responsibility. (Lídia, Kitchen Dates Supplier)

Our results further indicate that although each one of the actors in the supply chain has its own role, it is the connection and alignment between them and the restaurant owners that guarantees the real integration of sustainability into the restaurant business.

Without the farmers you can't work at all. We could define our rules very well but if no one would align with them, we wouldn't achieve anything. (Rui, Kitchen Dates Owner)

5.6.1. Farmers and Suppliers

A crucial element during the integration of sustainability into the restaurant business are farmers and suppliers because:

We had to go back to the beginning of the supply chain to first identify who were the possible producers that we could work with and understand if they would allow us to stay committed to our principles. (Rui, Kitchen Dates. 2020, April. in À Prova [Audio podcast]).

And in the case of Kitchen Dates this even meant going to visit them not only to guarantee sustainable practices during the whole process but also to meet the people behind the products and to create closely and trustfully relationships.

We needed to go and meet them, meet their fields, and meet the people who work for them. (...) Above all, we felt the need to create a trustworthy relationship, almost a blind trust, with the producers that would leave us totally comfortable. (Kitchen Dates. 2021, February 2. Our Story).

The commitment and transparency in the relationship between the restaurant owners and farmers are key during the process of incorporating sustainability in a restaurant. For Maria and Rui, that commitment was what ensured that Kitchen Dates core principles were actually fulfilled and that having a restaurant without waste is really possible.

Maria and Rui also highlighted that they learned a lot from the farmers, being them also a great source of inspiration both for the creation of the restaurant's menu and for a more sustainable life, more connected to nature.

We have learned a lot with the producers and the greatest wealth of Kitchen Dates as a project is what we have learned about the status of the Portuguese agriculture. (Maria, Kitchen Dates Owner)

But the reverse also happened. Maria and Rui inspired the people who work with them, and farmers were not an exception. Imposing farmers that work with them to have certain sustainable practices, such as not using disposable boxes, they end up teaching their stakeholders that is possible to do it, creating new possibilities that can also be applied to other restaurants and businesses.

These findings are consistent with Stead & Stead (1992) and Petrini & Pozzebon (2010), who note that sustainability culture in a given organisation has the potential to influence its stakeholders' actions (such as suppliers, distributors and even society); and reinforces the importance of leadership as a fundamental factor in the commitment of an organization to sustainability previously argued by Fineman (1996) and Bansal (2003), among others.

5.6.2. Employees/Staff

In a business area often known for high employee turnover, low wages, where people work more than 40 hours per week, and the same employees have two shifts per day (lunch and dinner service), in an often busy and tense environment, the social dimension of sustainability is often overlooked. However, it is a fundamental one, as employees are the first contact that customers have with a restaurant and its values and principles.

Previous research focused on the importance of employee training in this regard (Stone, 2006). However, our results suggest another mechanism, which is hiring people who already have the same principles as the restaurant. For Kitchen Dates, it was interesting to understand that when the restaurant has a powerful and meaningful brand, it ends up attracting committed staff who are more interested in being part of and in giving their best to the project.

When you have a restaurant that has this type of core principles, employees want to be part of it because it's about the future, you know? It's so important to be part of it that employees feel that they belong to a community. (Rui, Kitchen Dates Owner)

With the purpose of understanding how the employees of a restaurant see their role in the integration of sustainability in the restaurant industry, we talked with a former employee of Kitchen Dates and she agreed that employees are also accountable for this process, especially in terms of promoting sustainability through new and different ideas.

When you work in a restaurant with this type of core values, you know the mission and how it works, so you can also share your ideas and different sustainable solutions, because people who are running a restaurant have a lot of things to think about besides the kitchen stuff. (Sofia, Kitchen Dates Former Employee)

This client quote enhances some already published work (Daily & Huang, 2001; Wilkinson et al., 2011; Epstein et al., 2010) that suggest that some initiatives such as asking for suggestions about new sustainable actions and opportunities have a positive impact in employee empowerment in the topic of sustainability. And our findings also fit Epstein et al. (2010) studies that revealed that corporate culture based on sustainability has the ability to inspire and motivate employees to take sustainability duties in a more serious way, and they likewise emphasize that this culture also empower employees to create

commitment and feel passion to it, which benefits not only society and the environment, but also the restaurant itself.

5.6.3. Partners and Colleagues from other Restaurants

Another important stakeholder group can be partners and colleagues from other restaurants, and Kitchen Dates made some partnerships with projects that share identical values. One of those cases was Miosotis – a biological supermarket – that gave to Kitchen Dates the food that did not meet the appearance requirements necessary to stay on the supermarket shelves but was good for consumption. And another partner was Junta de Freguesia de Carnide (JFC), that connected the restaurant with the most in-need community of Carnide and Telheiras, where the restaurant was located, and provided them the land to grow their own ingredients. For Maria and Rui, it is essential that entities and businesses also have social concerns, contributing to greater social cohesion and to less inequalities in the community where they operate.

Previous research (JingJing et al., 2008) noted the role and importance of partnerships between different restaurants suggesting the development of connected networks within the industry, where restaurants in the same region can rely on the same suppliers, reducing the number of deliveries, dropping CO2 emissions. This could be a practice to be adopted once it is a value-added resource that has not just environmental benefits but also economic cost reductions, such as the delivery costs, and time reduction benefits and it would make the whole challenging process of finding local suppliers easier.

5.6.4. Clients and the Kitchen Dates Community

For Maria and Rui, clients play a very important role in promoting the message and the concept of sustainability. From the moment customers understand the message that the restaurant wants to share and connect with it, the project begins to create a chain that allows for progress in the theme of sustainability.

When our clients embrace our cause, it starts to be theirs too and then it starts to work like bees, they start to pollinate this message in other places (...) Several people came to our restaurant because other people who had already come here told them about us. And it's also only possible to be sustainable as a business when this happens. (Rui, Kitchen Dates Owner).

The word "community" was frequently used during Maria and Rui's interview, came up in almost all the secondary data analyzed and was present in all the conversations with the different stakeholders. Before opening the restaurant, Kitchen Dates had already created a community with whom they were very close, who followed them through social media and who participated in their initiatives such as the home brunches. With the crowdfunding campaign to create the restaurant, this community was expanded, and the proximity was increased.

Purpose and human relations can be seen as key in the ongoing success of a sustainable restaurant, where top managers have the responsibility of inspiring their stakeholders, building relationships and creating communities where every element of the business works in the same direction, with the main goal of delivering the firm purpose, such as Venkataraman (2002) work also suggested.

From a marketing and management point of view, the creation of such a strong community had many advantages, since the power of word of mouth was enough to help Kitchen Dates grow without any financial investment.

If you have clients who not only embody your principles and the message you want to convey, but then, even proactively, go out to other people to replicate that same message... it turns out to be a bit incalculable value. It ends up completing the cycle also in this aspect. (Rui, Kitchen Dates Owner)

In the middle of the global crisis of Covid-19 pandemic, the community already created was very important for Kitchen Dates.

The sense of community is key for us in this difficult time. (...) This community is only getting stronger, and not even the fact that we cannot be physically together is making those ties weaker. These bonds are becoming stronger and stronger through these adversities, I would say. (Rui, Kitchen Dates. 2020, May. in Why Not Podcast [Audio podcast])

Both Maria and Rui from Kitchen Dates as well as Miguel from Pigmeu state that without this group of people who they call their *community*, it would not have been possible for them to survive during the pandemic lockdowns, with the community being essential for a sustainable restaurant to exist and grow.

Economically speaking, what saved us was our community that was already established. During this phase, our clients even placed the orders before we shared our weekly menu. That support was essential, and we know that we survived as a business because of this solid community that we created over the past years with Kitchen Dates project. (Kitchen Dates [kitchendates]. 2021, February 10. Um Fim que Não é um Fim. Instagram video)

(...) so this community side of the business is essential for us, but in everything we do, not only during the pandemic but also outside of it. Maybe it was one of the main weapons during the pandemic, but it only happened because this community was already created. (Miguel, Pigmeu Owner)

These findings are aligned with the work of Linnenluecke and Griffiths (2010), which suggests that a culture based on human connections, that emphasizes social interaction and interpersonal relations, will have a better ability to incorporate sustainability.

To understand how clients see their role in incorporating sustainability into the restaurant business, we posed this question to the Kitchen Dates client interviewed. The client quickly enhanced that customers are important actors not only because they can spread the message to other people, but also because they have a voice in the choice of the type of restaurants they want to support and they can ask for more sustainable options and practices.

If we stop consuming there is no longer supply, so when there is demand there is supply, it's the basic law... (Catarina, Kitchen Dates Client)

Our results are in agreement with Chandler & Werther (2014), who believe that this multi-stakeholder perspective, which enables firms to respond to the various ever-changing demands and needs of their stakeholders, is also the optimum vehicle for the integration of sustainability in the business. These outcomes are also consistent with literature research about stakeholder theory of sustainability that is based on the assumption that values are necessarily and explicitly a part of doing business (Freeman et al., 2004), which is also in connection with stewardship theory that states that when stakeholders have their goals aligned with the goals of the managers, they are motivated to act in the collectivism best interests rather than by individual self-interests (Donaldson & Davis, 1991; Rezaee, 2016).

5.7. The Impact of the Global Pandemic of Covid-19 in the Integration of Sustainability in the Restaurant Business

The global Covid-19 pandemic has been having a profound effect on the food industry, as governments around the world have at different times enacted measures that closed restaurants and bars to slow the spread of the virus. Almost every business was affected in some way by the pandemic and Kitchen Dates was not an exception. The full experience of Kitchen Dates – gathering a maximum of twenty strangers around a single table to share food and food for thoughts – was rendered impossible by Covid-19 and Maria and Rui had to rethink the whole concept to be able to continue to materialize their mission.

Kitchen Dates have always been more a social experience than a gastronomic one, and now we need to reinvent ourselves on a weekly basis, always trying to understand the needs of our clients. (Kitchen Dates [kitchendates]. 2020, May 5. Question and Answers Kitchen Dates video. Facebook).

We asked the restaurant owners interviewed how they see the impact of the pandemic on sustainability in restaurants, and unfortunately the responses were not very optimistic. The respondents all seemed to believe that there will be a regression in terms of sustainability, especially because a major economic crisis is expected and, when that happens, the main objective of restaurants is to survive and not be sustainable.

When you enter in a survival mood, you do things you wouldn't do in normal times because you are trying to save your own skin (...) and maybe some restaurants were already having sustainable concerns and now they have regressed. And it will take a while for them to have

them again... until they regain economic stability, they won't want to go into environmental sustainability, so it will take some time... We regressed to a certain extent, we regressed... (Rui, Kitchen Dates Owner)

The boom of take away and home deliveries also contributed to a greater production of waste that did not exist in the restaurant business in such a large scale. With the doors closed during pandemic lockdowns, all restaurants needed to find solutions to continue selling their food, and this forced them to resort to disposable packaging, even if made with natural materials.

The state of emergency is not only as a society, it has also become a state of emergency for business, and this sometimes makes us, in a general way, give up some things that otherwise we wouldn't give up. And even we are an example of that, I mean... these packaging boxes we only started to use with the pandemic and it is an additional use of resources that we didn't contemplate at the beginning. (...) We had to put paper towels in the bathroom, which we didn't have before, it was just a towel. And even things like alcohol gel come packaged, there is no alcohol gel in bulk. (Rui, Kitchen Dates Owner)

In times of crisis, the price usually becomes a key determining factor in most business, and especially in the restaurant industry. For Miguel, from Pigmeu, this is will not help the integration of sustainability and he reinforced the need to find solutions to reach affordable prices for customers, without giving up sustainability.

When price starts to be very critical for the choice of an experience, this is usually an enemy of sustainability and of the development of things. (...) it is necessary to find solutions to create affordable prices, but work on it in a way that is sustainable, and this will certainly be a big challenge. And it will certainly be a barrier for new people to incorporate sustainability in a phase in which the price is critical and that everyone will try to lower the prices. (Rui, Kitchen Dates Owner)

However, Kitchen Dates stressed that when people have less money to spend, they tend to choose wisely who they want to give their money to, and they usually choose projects that speak closer to their hearts, hence the importance of a restaurant not simply being a business that pursues profit but also has a bigger mission.

And I see that there are a lot of people that are able and willing to do what they can to help us go through these hard times. (Rui, Kitchen Dates. 2020, May. in Why Not Podcast [Audio podcast])

During the lockdown, with its doors closed and just two people (the owners) working on the project, Kitchen Dates started to sell vouchers that customers would be able to use when things reopened, as a survival strategy. With the realization that the situation would not be temporary, Maria and Rui then

turned to take-away and home delivery services, with everything made by themselves. During daytime Maria stayed at the restaurant taking care of take-away orders and Rui made all the deliveries.

For public health reasons, Maria and Rui were forced to compromise one of their principles: some of their products were now delivered in compostable cardboard boxes and they started to use paper rolls for cleaning and drying in order to reduce the contamination risks.

Although Kitchen Dates had to rethink their entire social experience, the way they had decided to work from the very beginning, staying committed to all their principles, was a big advantage during this time of crisis. As they worked with short circuits and with a direct relationship with their producers, there was no disruption in the supply chain - most of their producers still needed to sell their products and Kitchen Dates still needed to have the ingredients to cook and, as they were closer to each other, that exchange was easier, even with restrictions on circulation over the weekends.

We did not suffer from the crazy disappearance of flour from the supermarkets, for example, like the restaurants that buy and depend on this type of processed products. (Kitchen Dates [kitchendates]. 2021, February 10. Um Fim que Não é um Fim. Instagram video)

And, in the middle of a global crisis, it becomes clear which are the restaurants that created a group of people – a community – that supports the business, ordering their food and products, participating in their online events, or simply showing love through social media.

We see a lot of restaurants struggling to sell and survive and in our case the fact that we build such a strong community around the principles that we champion has allow us to go through this period without suffering that much, in fact(...) I truly believe that if it wasn't for the community that we built throughout these years, we were not able to survive during this period. To me this is really clear. (Rui, Kitchen Dates Owner)

Although studies on sustainability about the restaurant business during global pandemic of Covid-19 have not yet been published, our results seem to be consistent with Kearney's (2009) work, which showed that organizations that have in mind the protection of the environment and the social-wellbeing of the various stakeholders, at the same time that they add value to the shareholders, have financial advantages during economic downturns, because of the reduction of operational costs and increased revenues from innovative green products.

6. Conclusions, Limitations and Future Research

This research aimed to explore and better understand the integration of sustainability into the day-to-day decisions and activities of a restaurant, bearing in mind the role of its stakeholders and the three dimensions of sustainability (social, environmental, and economic). In order to analyze these issues, a

case-study research of the first Portuguese sustainable and zero-waste restaurant was carried out. The results show that integrating sustainability into the restaurant business requires an integrated and holistic approach that embraces all dimensions of sustainability and recognizes the need to involve stakeholders. According to the interviews made to Kitchen Dates and their stakeholders, it is fundamental to closely and critically analyze every area of the business and adopt a multifaceted approach if long-term sustainability is to be achieved. Human relationships, in particular, were identified as vital to success, with the recognition that every actor in the supply chain has a role in delivering the restaurant's purpose and mission.

Indeed, one of the concerns raised in the interviews pertained to the different elements of sustainability not being fully considered, but restaurants were labeling themselves as "sustainable" nonetheless. This can lead to a misunderstanding that confuses consumers about the sustainability standards and contribute significantly to the challenge that remains in this area – understanding how to really make restaurants more sustainable. However, our findings also suggest that a sustainable restaurant is the one that minimizes its environmental impact, at the same time that it benefits society and prospers financially, consistently with the Triple Bottom Line perspective (Elkington, 1997), and our results seem to indicate that isolated practices are not what makes a restaurant sustainable, but rather a holistic and integrated approach that considers the environmental, social and economic dimensions of sustainability and the various stakeholders of the business.

Our findings show that the integration of sustainability into the restaurant business has to be materialized in day-to-day practices, at two levels: one pertaining to the products (i.e. the food) offered (e.g.: having a mostly plant-based menu; privileging local and organic ingredients, produced in a conscious way; or ordering whole ingredients directly from farmers); and one that goes beyond the product, to other business areas (e.g.: reconsidering energy sources, the water usage, composting processes, and developing partnerships with companies that also have sustainable principles incorporated in their businesses).

This means that all the participants in the supply chain of a restaurant have a role to play, and a multistakeholder perspective is recommended where managers consider the various stakeholders of the business and not just their restaurant, and where the goals of these actors are aligned with the restaurant's mission. Here, the creation of communities and human connections among stakeholders are seen as key ingredients in the successful integration of sustainability into the restaurant business.

This holistic perspective that is required to incorporate sustainability in a restaurant may explain why our findings suggest that it is easier to incorporate sustainability in the early stages of opening a restaurant (or even developing the concept for it), rather than in a well-established business. Likewise, it was suggested that ironically, it might be easier for people with less experience in the restaurant business to carry out this integration, as they will not be attached to existing practices or have yet

developed common industry habits, many of which are unsustainable. This is not to say that it is not possible to integrate sustainability in a more mature restaurant. But, for this to happen, restaurant procedures need to be restructured to facilitate the implementation of sustainable practices, which requires carefully looking at each procedure, in each area, and identifying what changes need to be made in each one to create a more sustainable restaurant. These changes must not only decrease the negative impact on the environment, but also help the surrounding community and employees, at the same time they are contributing to a positive financial balance.

Although sustainability can often be seen as an end goal to be achieved, our respondents tended to see it far more as a process, which sometimes progresses faster than others, and will likely never have an end point, as new ideas for improvements in different areas continuously emerge. Thus, it seems important that restaurants do not see sustainability as a closed goal, but rather as a core principle that must be incorporated into strategy and should underpin all business decisions, being constantly revised.

With regard to the impact of integrating sustainability into the restaurant business, the respondents pointed several economic, environmental and social benefits, not just for the restaurant itself, but for all the stakeholders involved, including cost savings, brand equity, customer word of mouth, the stimulation of creativity, the connection created between the restaurant and its clients, staff commitment and the waves of inspiration and empathy that are generated among every stakeholder.

Notwithstanding, it was recognized that achieving these benefits was not always easy. The main challenges identified included finding local and sustainable farmers, the level of creativity that is constantly required to create new dishes with the ingredients of the season, the menu design, the quantity of ingredients that needs to be ordered to meet demand without producing waste, the composting process, customers' potential resistance to some sustainable practices, such as the size of the napkins, the greater demand for space to store the goods and the need to combat old, non-sustainable habits that may already be rooted in the minds of the people who work in the restaurant business.

According to our interviewees, to overcome these obstacles, a clear definition of rules and standards for the restaurant is required, that must be at the base of all decisions. Therefore, when tensions arise during the process of integrating sustainability in a restaurant, it is easier to make decisions without leaning towards the less sustainable (but potentially easier or less costly) side. This simple but effective tool may ensure that sustainability incorporates the firm's vision, commitment, and decision-making process, and becomes part of the culture.

Albeit the inherent challenges of integrating sustainability in a restaurant, our results denote that the advantages it brings, and the potential benefit to every stakeholder in the restaurant business, make it worthwhile for restaurant owners to rethink the way they are doing business in this area. However, in such a sensitive moment as the world is in now, facing the global Covid-19 pandemic, our results do not foresee an optimistic scenario in the impact it is likely to have and might continue to have in the

integration of sustainability in the restaurant business, with respondents predicting a regression in terms of sustainability. This is due to the boom in takeaway created during the lockdowns, leading to waste that did not exist before, with restaurants being obliged to resort to more disposable materials. At the same time, a major economic crisis is expected, and when that happens the main objective of restaurants will likely be survival, rather than sustainability, which often means making unsustainable choices, both economically and socially, in order to guarantee profit. At the same time, our results suggest that restaurants that deeply incorporate sustainability into their business, that are committed to their core values and have a bigger mission, create a unified community with their clients and closer relationships with their stakeholders.

6.1. Contributions and Implications

This study was able to contribute to the body of knowledge of sustainability in the restaurant business, by providing a holistic perspective of what a sustainable restaurant is, based on the insights of the various stakeholders in the supply chain, which had not, to the best of our knowledge, been previously done. This allowed the identification of new benefits of sustainability in the restaurant business which had not previously been discussed. Namely, we found that many of the benefits of integrating sustainability were not exclusive to the restaurants themselves, but spilled over to other stakeholders, which can be an important element in opening the horizons of the entire food chain with regard to this topic. In addition to contributing to the literature, this is also important to practice, because we need to know the challenges of integrating sustainability in this area to understand how to be prepared and overcome them.

Our study also introduced, for both theory and practice, additional sustainable day-to-day practices for incorporating sustainability into the restaurant business, such as making every processed food from scratch, emphasizing that such practices need to be incorporated in every part of the business, through a multifaceted approach. And, although some authors had proposed strategies to prioritize stakeholder concerns when trade-offs between the economic, environmental and social dimension arise, this dissertation introduces a new mechanism to stay committed to its sustainable principles when these conflicts happen – the creation of a clear set of sustainable rules.

Albeit the importance of stakeholders during the implementation of sustainability into a firm has already been published, these contributions were not evident. Due to this dissertation, it may now be clearer the role of different actors in the supply chain during this process, which can not only contribute to theoretical literature, but also clarify to the different intervenients of the food chain how they can also support the integration of sustainability into the restaurant business.

Because it is such a recent event, which in fact happened during the development of this master thesis, the implications that the Covid-19 pandemic may have on the integration of sustainability in the restaurant business are not fully known; but this research helps shed light on some of the possible consequences in this regard.

In a practical manner, it is hoped that this dissertation may not only inspire the restaurant owners and managers to incorporate sustainability into their restaurants, but also provide them with practical guidelines regarding how to do this, possible challenges and ways to overcome them. Furthermore, it illustrates that it is possible to integrate sustainability and still be profitable, and that there can be many benefits in doing so.

For consumers, the Kitchen Dates case can be an important illustration of what sustainability in the restaurant business can (and arguably should) look like, encouraging a more critical inquiry of the term "sustainable" not only in restaurants but in businesses in general, hopefully motivating them to prize restaurants that really have environmental, social, and economic concerns. The findings reported in this study also have implications for other actors in the restaurant business, such as suppliers, farmers and partners, and it is hoped that this study will lead them to reconsider how they are working with the restaurant industry and inspire them to adopt more sustainable practices during their partnership with restaurants.

6.2. Limitations and Future Research

As with any study, this research was not without its limitations. Firstly, the virtues of case-study research notwithstanding, it is not possible to extrapolate general conclusions from a single case, even if it can be considered as an exemplary (Yin, 2009) and even with a study that includes multiple units of analysis such as the restaurant stakeholders. Secondly, although this research made use of multiple data sources, the interviews were carried out with a limited number of participants, and only one person from each stakeholder category. Finally, this thesis was written during Covid-19 global pandemic, a time of change in the world and, specifically, in the restaurant business, where some of the issues raised are still ongoing. At the same time, the pandemic restriction did not allow all the interviews to be carried out in person as desired, and it was also impossible to meet the spaces where the stakeholders work, as we initially aspired to.

To better understand the implications of these results, a multiple case-study analysis with different sustainable restaurants could be carried out. It could also be interesting for future research to quantitatively analyze the economic benefits that a sustainable restaurant can have compared to a traditional restaurant, since cost savings are often reported as a potential benefit but never measured, and this type of studies may motivate more restaurants to incorporate sustainability.

Our results also showed that there is a need for more accountability in sustainability in the restaurant business, and that it might be useful to create a mechanism to evaluate a restaurant's sustainable practices. Finally, further research is needed to determine how sustainability is being affected by the Covid-19 global pandemic, as well as to compare the consequences of this downturn on sustainable vs. traditional restaurants.

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Annexes

A. Images taken during direct observation in the Kitchen Dates restaurant



Figure 1- All unused husks, or parts of the food that are not possible to consume, are placed in boxes in the freezer. When they have a large amount, these husks are steamed slowly to release their natural juices.



Figure 2 - Afterwards, the steamed huskes are squeezed by hand to release all of their liquid, which is later placed on the fire to be reduced to salted molasses.



Figure 3 - All the husks that have already been squeezed or are dehydrated in the dehydrator, to be transformed into powder to finish other dishes, or placed in the Eva composter, which you can see in the image, and then returned to the producers' land.



Figure 4 - The dish that we were preparing during direct observation: Sourdough Focaccia, with peanut and "Quimchico" paste, shiitake mushrooms with salted molasses, fermented lemon and fresh coriander.



Figure 5 - Some of the dehydrated food jars at the Kitchen Dates restaurant.

B. Original consent form to be signed by the interviewee

CONSENTIMENTO INFORMADO

O presente estudo surge no âmbito do projeto final - dissertação - do mestrado de Business

Administration, do ISCTE Business School.

Este estudo tem por objetivo explorar e compreender a integração da sustentabilidade na indústria da

restauração, tendo em consideração os vários stakeholders do negócio e as dimensões da

sustentabilidade (social, ambiental e económica), através do estudo de caso Kitchen Dates, o primeiro

restaurante sem caixote do lixo em Portugal.

O estudo é realizado por mim, Joana Figueiredo (figueiredo.o.joana@gmail.com), que poderá contactar

caso pretenda esclarecer alguma dúvida ou partilhar algum comentário.

A sua participação no estudo, que será muito valorizada uma vez que irá contribuir para o avanço do

conhecimento neste domínio da ciência e para a integração da sustentabilidade no negócio da

restauração, consiste numa entrevista que se espera que não terá uma duração superior a 30 minutos. Se

consentir, a entrevista será gravada para me certificar que todos os comentários ficam registados.

Não existem riscos significativos expectáveis associados à participação no estudo. A participação no

estudo é estritamente voluntária: pode escolher livremente participar ou não participar. Se tiver

escolhido participar, pode interromper a participação em qualquer momento sem ter de prestar qualquer

justificação. Para além de voluntária, a participação é também anónima e confidencial.

A entrevista será analisada, juntamente com as restantes que serão feitas a outros participantes, e, depois

de terminada, terei todo o gosto em partilhar uma cópia para ler, se estiver interessado/a.

Obrigada pelo seu tempo.

Joana Figueiredo

Declaro ter compreendido os objetivos de quanto me foi proposto e explicado pela investigadora, ter-

me sido dada oportunidade de fazer todas as perguntas sobre o presente estudo e para todas elas ter

obtido resposta esclarecedora, pelo que aceito nele participar.

	(local),/	/(data)	
Nome:			
Assinatura:			

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C. Original Interview Script – Kitchen Date owners

Entrevista:	Stakeholder: Rui e Maria
Research Question	Guião
RQ4: What are the main benefits and challenges of integrating sustainability in the restaurant business from the point of view of the various stakeholders?	 Se tivessem que descrever os Kitchen Dates, o que diriam? E como se descrevem a vocês próprios? O projeto Kitchen Dates é muitas vezes denominado um "restaurante sustentável"
	 3. Gostam desta designação ou rótulo? Vêem-se como tal? 4. O que é, para vocês, um restaurante sustentável? (se não falarem das 3 dimensões – económica, social e ambiental – perguntar pela que faltar)
	 5. Quais são, na vossa opinião, os principais benefícios de integrar a sustentabilidade na indústria da restauração? 6. Quais são, para vocês, os principais desafios de integrar a sustentabilidade na indústria da restauração? 6.1 Como é que ultrapassaram esses desafios? / Como é que é possível ultrapassar esses desafios?
RQ1: What are the day-to-day activities that a restaurant can incorporate in their strategy in order to be more sustainable from a social, environmental and economic perspective?	 Uma coisa é criar, de raiz, um restaurante sustentável. Outra coisa é fazer mudanças num restaurante que já existe para o tornar mais sustentável. 7. Na vossa opinião quais são os elementos a ter em conta, para criar, de raiz, um restaurante o mais sustentável possível? 8. E quais são as mudanças que podem ser feitas num restaurante tradicional, de maneira a torná-lo mais sustentável? (Nas decisões e no dia-a-dia, na prática, quais são as atividades ou tarefas que podem ser feitas)
RQ2: How can the tensions between the various dimensions of sustainability (social, environmental and economic) be managed while integrating sustainability in the restaurant business?	Quando se pensa em tornar um restaurante sustentável, normalmente há que ter em conta as suas três dimensões: social, ambiental e económica, e podem existir sinergias e situações win-win entre elas. 9. Quais são as decisões/atividades em que sentem que existe uma situação win-win-win entre as 3 dimensões, durante a integração da sustentabilidade num restaurante? (Com base na vossa experiência, têm algum exemplo que possam partilhar?) Também pode existir algum desalinhamento entre estas 3 dimensões. 10. Alguma vez sentiram que, para serem sustentáveis numa das três dimensões da sustentabilidade, tinham de abdicar de outra? Por exemplo, o café. O café, embora seja um ingrediente que pode prejudicar o ambiente é um produto que traz bastante lucro aos restaurantes e ao qual as pessoas têm um carinho muito especial. Quando tomaram a decisão de não venderem café tiveram em conta cada uma destas dimensões? 11. Como é que conseguem gerir as tensões entre estas diferentes dimensões quando têm de tomar decisões?
RQ3: What is the role of the different stakeholders of the business in the process	

of integrating sustainability in a restaurant?	12. Na vossa opinião, qual é o papel dos stakeholders – as várias partes interessadas que interagem com os Kitchen Dates (como os clientes, os funcionários, os produtores, os fornecedores e os parceiros) - na integração da sustentabilidade num restaurante?
RQ5: How is the global pandemic of covid-19 affecting the integration of sustainability in the restaurant business?	A pandemia está a afetar muito a indústria da restauração, e de uma forma muito negativa. Mas 13. Como é que vêm o impacto que esta pandemia pode ter na integração da sustentabilidade nos restaurantes? Impacto positivo ou negativo? Porquê? Como?
	14. Sentem que a pandemia afetou de forma diferente o vosso negócio por serem um restaurante que tem a sustentabilidade na sua base? Porquê? Como?

D. Original Interview Script – Client/Supplier of Napkins

Entrevista:	Stakeholder: Cliente + Fornecedora	
Research Question	Guião	
Perguntas introdutórias e quebra-gelo	Sei que é cliente dos Kitchen Dates	
	1. Como é que conheceu os Kitchen Dates?	
	2. Os Kitchen Dates são muitas vezes referidos como um restaurante que tenta reduzir ao máximo a sua pegada no planeta e tornar os seus processos mais sustentáveis O que é, para si, um restaurante sustentável?	
	3. Costuma ir a outros restaurantes? E a restaurantes não sustentáveis?	
	4. Se sim, quais são as principais diferenças que sente?	
RQ4: What are the main benefits and challenges of integrating sustainability in the restaurant business	5. Quais são, na sua opinião, os principais benefícios de frequentar um restaurante sustentável?	
from the point of view of the various stakeholders?	6. E os principais desafios?	
RQ3: What is the role of the different stakeholders of the business in the process of integrating sustainability in a restaurant?	7. Acha que os clientes têm também um papel na integração da sustentabilidade num restaurante? Se sim, em que sentido?	
	8. Sente que, enquanto cliente, também contribuiu para toda a essência e princípio de sustentabilidade dos Kitchen Dates? Porquê?	
RQ3: What is the role of the different stakeholders of the business in the process of integrating sustainability in a restaurant?	Sei que, primeiro que tudo, é cliente dos Kitchen Dates mas depois tornou-se também fornecedora, nomeadamente dos guardanapos de tecido, não é? 9. Como é que esta parceria aconteceu?	
	10. Como é trabalhar com eles?	
	 11. Trabalha com mais restaurantes? 11.1 Se sim, trabalha com mais restaurantes com uma abordagem mais sustentável? 11.2 (Se também já trabalhou com tradicionais) Quais as principais diferenças? 	
	12. Enquanto fornecedora, quais são os principais benefícios e os principais desafios de trabalhar com um restaurante sustentável?	
	13. E, para finalizarmos, considera que os fornecedores têm também um papel ativo na integração da sustentabilidade no restaurante? Se sim, em que sentido?	

E. Original Interview Script – Farmer of Spirulina

Entrevista:	Stakeholder: Produtor	
Research Question	Guião	
Perguntas introdutórias e quebra-gelo	Sei que produz XXXX, de forma biológicano sítio XXX (adaptar consoante o produtor)	
	1. Como é que tudo começou?	
	2. Como é que conheceu os Kitchen Dates?	
	3. E como é trabalhar com os Kitchen Dates?	
	4. Os Kitchen Dates são muitas vezes referidos como um restaurante que tenta reduzir ao máximo a sua pegada no planeta e tornar os seus processos mais sustentáveis O que é, para si, um restaurante sustentável?	
	5. Trabalha com mais restaurantes? 5.1 Se sim, trabalha com mais restaurantes com uma abordagem mais sustentável?	
	6. (Se também já trabalhou com tradicionais) Quais as principais diferenças?	
RQ4: What are the main benefits and challenges of integrating sustainability in the restaurant business from the point of view of	7. Quais são, na sua opinião, os principais benefícios de trabalhar com um restaurante sustentável?	
the various stakeholders?	8. E os principais desafios?	
RQ3: What is the role of the different stakeholders of the business in the process of integrating sustainability in a restaurant?	9. Acha que os produtores têm também um papel na integração da sustentabilidade num restaurante? Se sim, em que sentido?	
	9.1. Sente que, enquanto produtor, também contribuiu para toda a essência e princípio de sustentabilidade dos Kitchen Dates? Porquê?	

F. Original Interview Script – Suppliers of Dishware

Entrevista:	Stakeholder: Fornecedor
Research Question	Guião
Perguntas introdutórias e quebra-gelo	Sei que produz peças em cerâmica feitas à mão 1. Como é que tudo começou?
	2. E foi a responsável por criar e dar vida à loiça do restaurante Kitchen Dates, não foi? Como é que os conheceu?
	3. E como é trabalhar com os Kitchen Dates?
	4. Os Kitchen Dates são muitas vezes referidos como um restaurante que tenta reduzir ao máximo a sua pegada no planeta e tornar os seus processos mais sustentáveis O que é, para si, um restaurante sustentável?
	5. Já trabalhou com outros restaurantes? Se sim, sustentáveis ou tradicionais?
	6. (Se também já trabalhou com tradicionais) Quais as principais diferenças?
RQ4: What are the main benefits and challenges of integrating sustainability in the restaurant business	7. Quais são, na sua opinião, os principais benefícios de trabalhar com um restaurante sustentável?
from the point of view of the various stakeholders?	8. E quais são os maiores desafios?
RQ3: What is the role of the different stakeholders of the business in the process of integrating sustainability in a restaurant?	9. Acha que os fornecedores têm também um papel ativo na integração da sustentabilidade num restaurante? Se sim, em que sentido?
	9.1 Sente que, enquanto fornecedor dos Kitchen Dates, também contribuiu para a criação da essência e princípio de sustentabilidade dos Kitchen Dates? Porquê?

G. Original Interview Script – Former Employee and Founder of COMVIDA restaurant

Entrevista:	Stakeholder: Ex-Funcionária + atual dona de um restaurante sustentável
Research Question	Guião
Perguntas introdutórias e	Sei que se voluntariou para estagiar nos Kitchen Dates
quebra-gelo	15. Como é que conheceu os Kitchen Dates?
	1
	16. E como é que começou a trabalhar nos Kitchen Dates?
	(Porque é que quis trabalhar neste restaurante e não em outro
	qualquer?)
	17. Como é trabalhar com os Kitchen Dates?
	18. Os Kitchen Dates são muitas vezes referidos como um restaurante
	que tenta reduzir ao máximo a sua pegada no planeta e tornar os seus
	processos mais sustentáveis O que é, para si, um restaurante
	sustentável?
Cortar nas perguntas mais	
introdutórias caso comece a demorar muito a responder	19. Já trabalhou em outros restaurantes?
demorar matto a responder	Se sim, sustentáveis ou tradicionais?
Ou fazer a 4 e 5 no fim	20 (Sa também ié traballe to-di-ii-) F ' f '
	20. (Se também já trabalhou em tradicionais) E como é ser funcionária
	de um restaurante sem desperdício? Quais as principais diferenças?
RQ4: What are the main benefits and challenges of	21. Quais são, na sua opinião, os principais benefícios de trabalhar num
integrating sustainability in	restaurante sustentável?
the restaurant business	
from the point of view of the various stakeholders?	22. E quais são os maiores desafios?
RQ3: What is the role of the different stakeholders of	
the business in the process	23. Acha que os funcionários têm também um papel na integração da
of integrating sustainability	sustentabilidade num restaurante?
in a restaurant?	Se sim, em que sentido?
	24. Sente que, enquanto funcionária do restaurante, também contribuiu
	para a criação da essência e princípio de sustentabilidade dos Kitchen
	Dates?
	Porquê?
Demounts into J 47	G.'tl'
Pergunta introdutória – dona de restaurante	Sei também que agora tem o seu próprio restaurante, o COMVIDA
sustentável	25. Como é que descreveria o seu restautante?26. O que é que a motivou criar o seu próprio restaurante?
	10.1 E porquê um restaurante sustentável?
	2012 2 posque am resummino sustema. etc
DOA WILL I	
RQ4: What are the main benefits and challenges of	27. Quais são, na sua opinião, os principais benefícios de integrar a
integrating sustainability in	sustentabilidade na indústria da restauração?
the restaurant business	20 Onnie 22 - mars il se mineira il 1 o 6 o 1 l'atauna
from the point of view of the various stakeholders?	28. Quais são, para si, os principais desafios de integrar a
	sustentabilidade na indústria da restauração? 11.1 Como é que ultrapassa esses desafios? / Como é que é possível
	ultrapassar esses desafios?
DOL What is it is	
RQ1: What are the day-to- day activities that a	29. Na sua opinião, quais são os elementos a ter em conta, para criar, de
restaurant can incorporate	raiz, um restaurante o mais sustentável possível?
in their strategy in order to	
be more sustainable from a social, environmental and	
economic perspective?	

H. Original Interview Script – Founder, CEO and Chef of Pigmeu restaurant

Entrevista:	Stakeholder: Chef	
Research Question	Guião	
Perguntas introdutórias e quebra-gelo	Sei que participou no desafio dos Kitchen Dates de cozinhar segundo as sua regras e princípios, sem desperdiçar nenhuma parte de cada alimento.	
	Como correu? Foi, de facto, um desafio? Ou mais fácil do que pensava?	
	2. Como é que conheceu os Kicthen Dates?	
	3. E como é que começou esta parceria entre o Pigmeu e os Kitchen Dates?	
	4. E como é trabalhar com os Kitchen Dates?	
	5. Os Kitchen Dates são muitas vezes referidos como um restaurante que tenta reduzir ao máximo a sua pegada no planeta e tornar os seus processos mais sustentáveis O que é, para si, um restaurante sustentável?	
	6. Tenho ideia que no restaurante Pigmeu têm também uma abordagem de tentar tornar os vossos processos mais sustentáveis, não é? 5.1 Se sim, consegue dar alguns exemplos?	
	Enquanto chef e dono de um restaurante	
	7. Considera que é possível ter um restaurante sustentável, tendo em conta as suas 3 dimensões: económica, social e ambiental?	
RQ4: What are the main benefits and challenges of integrating sustainability in the restaurant business from the point of view of the various stakeholders?	8. Quais são, na sua opinião, os principais benefícios de integrar a sustentabilidade num restaurante?	
	 E os principais desafios? 9.1 Tem conseguido ultrapassar alguns desses desafios que referiu? Se sim, como? 	
RQ1: What are the day-to-day activities that a restaurant can incorporate in their strategy in order to be more sustainable from a social, environmental and economic perspective?	10. Tendo em conta a sua experiência, consegue dizer-me algumas mudanças que podem ser feitas num restaurante mais tradicional, de maneira a torná-lo mais sustentável? (Nas decisões e no dia-a-dia, na prática, quais são as atividades ou tarefas que podem ser feitas)	
RQ5: How is the global pandemic of covid-19 affecting the integration of sustainability in the restaurant business?	A pandemia está a afetar muito a indústria da restauração, e de uma forma muito negativa. Mas 11. Como é que vêm o impacto que esta pandemia pode ter na integração da sustentabilidade nos restaurantes? Impacto positivo ou negativo? Porquê? Como?	
	12. Sentem que a pandemia afetou de forma diferente o vosso negócio por serem um restaurante que tem a sustentabilidade na sua base? Porquê? Como?	