

# The engagement against food waste in hospitals as a strategy for corporate social responsibility

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## Abstract

The primary objective of the academic work study in essence is to analyse Corporate Social Responsibility Strategies. Fundamentally as a element of resources for organizations by identifying the origin and motivation and practices for combating food waste in Health Care facilities. The work highlights three large hospitals that have been analysed through semi-structured interviews, participant observation and documentary analysis. Empirical evidence has shown that the particular context of hospitals is driven in the main by governmental legislation, that intern efforts in hospital waste management program. Strategy development and resource generation require governance, stakeholder engagement, shared data information and integrated communication.

**Keywords:** Food waste, corporate social responsibility, *RBV*, governance.

## Introduction

The United Nations Food and Agriculture Organization (FAO) reports that 1.3 billion tons of food are wasted annually in the world, 3% corresponds to Brazil. In general, developing countries are facing relatively greater challenges in food waste management than developed countries (Thi, Kumar & Lin, 2015). In addition to the social impacts of food security for developing countries, where malnutrition and hunger are one of the primary causes of mortality (Valdés, 1981), food waste contributes to the excess consumption of fresh water and fossil fuels, contribute to increased emissions and affect climate change (Hall et al, 2009).

Research on waste reveals the relevance of the relationships between Agent's, Companies and Complex chains and their different platforms, Sonnino and Mcwilliam's (2011) studies portray the importance of a more integrated political perspective, that mobilizes all players in the food system around a shared vision for sustainable development. On the relevance of the study sought to answer the following questions: What are the causes food

waste in hospitals? How are corporate responsibility strategies for combating food waste a source of resources for organizations? According to Hart and Milstein (2004), the global challenge associated with sustainability from the business perspective can help to identify strategies and practices that contribute to a more sustainable world and drive shareholder value.

In this sense corporate social responsibility (CSR) allows organizations to engage with social and environmental issues, going beyond legal ones (McWilliams & Siegel, 2001). The corporate social responsibility has as central arguments: i) moral obligation; ii) sustainability; (iii) license to operate; and (iv) reputation (Porter & Kramer, 2006).

To the extent that companies engage in CSR strategically, this behavior can be examined through resource-based-view-of-the-firm (RBV). By combining different internal resources and organizational skills, the most diverse capabilities can be developed (Barney, 1991). Result of a set of knowledge, skills and processes socio-environmental responsibility is perceived as an organizational capacity (Black, 2006).

To answer the question of research the qualitative approach was used, analyzing the main causes of intra organizational food waste and actions to combat waste through participatory observation and interviews with sustainability managers and nutritionists. The research was conducted in three large hospitals, selected according to the number of beds above 500, one public and two private philanthropic. Hospitals were the organizations selected for their complexity (Glouberman & Mintzberg, 2001; Smith et al, 2010), requiring greater involvement of stakeholders, attention to social issues, transparency and accountability (Malfait et al., 2017).

The research highlighted the importance of governance and involvement of stakeholder, as mechanisms of awareness and engagement. Another important aspect is shared communication, which is necessary for the implementation phase as it moves from communication to cooperation and action. Based on the theory of stakeholders and the RBV it is possible from the relationships to engage stakeholders by developing intangible resources (technology, human resources, reputation and culture) and thereby increasing organizational efficiency (Surroca, Tribó & Waddock, 2010).

Practices such as skill improvement, organizational flexibility facilitating the flow of information, environmental training programs (Kitazawa & Sarkis, 2000). As results, we find that the most common causes of waste in hospitals are communication failures and low stakeholder engagement, which occurs in daily routines through medical changes, patient withdrawal, and employee awareness. To solve these problems, the dialogue, transparency, dissemination and reporting of waste related information, articulated action, facilitating exchanges of experience between the various stakeholders of the organization, debate about the current and future impacts on social environmental and economic aspects and the stimulus to monitoring activities.

### **Theoretical Background**

Environmental Social Responsibility (CSR) is in effect within the scope of the organizations: enabling sustainable competitive advantages, essentially as concise organizational culture, corporate citizenship, and know-how (Barney, 1991; Black, 2006). (Black, 2006) pointed out that the fundamental result of knowledge, skills and processes socio-environmental responsibility is perceived as an organizational capacity. According to Sousa Filho et al. (2010), the authors demonstrated aspects that should by and large compose a socio-environmental strategy, covering contrasting organizational resources that when combined and aligned, with the differentiation criteria defined by Barney (1991), hence generate competitive advantage.

Organizations' engagement in CSR strategies can be analysed from a resource-based-view (RBV) perspective (McWilliams, Siegel & Wright, 2006). This pioneering study to apply RBV to corporate social responsibility was by Hart (1995), focusing on environmental social responsibility (RSE).

Corporate involvement in CSR is a direct answer and action to the demands of stakeholders, consumers, employees, investors and the community (McWilliams & Siegel, 2001). The research proclaimed that in some companies CSR could turn into a resource or ability to gain competitive advantage.

The resource-based perspective is largely based on the accumulation of value, extraordinary, inimitable and non-replaceable resources (Peteraf, 1993), an explanation of heterogeneity, immobility and difficulty of imitation, in so saying a return that resources generate (Prahalad and Hamel 1990; Nelson, 1991; Barney, 1991). There are difficulties with the imitation that can be found in natural conditions (earth sciences, scarcity of materials), legal and institutional mechanisms (Brands, Patents, Market reserves, Property rights).

There are two core concepts tabled, firstly one that recognizes the marketing developed by organizations as strengthening agent as the resources needed for competition. The second, represent the RBV that reinforces the fact that resources that generate competitive differentials are more complex to accumulate tangible assets and factors of production (Leiblein, 2003). However, the natural-resource-based view (NRBV) is the way companies relate to the natural environment and its ability to generate value by developing strategies such as pollution prevention, product management and sustainable development (Hart, 1995).

For Barney (1991) resources are categorized as follows: i) Physical capital, (ii) Human capital, and iii) Organizational capital. Resources or are attributed as a feature been as a strength or weakness of the Company. This intern makes it possible to create and develop workable strategies that boost the efficiency of the organization (Wernerfelt, 1984). In Surroca research, Tribó & Waddock (2010) made use of the 'Perspective of Intangible Resources' by its nature as Innovation, Human capital, Reputation and Culture thus explaining which are profitable and socially responsible to companies.

The quantity of intangible resources therefore guarantees the sustainability for organizations' thus competitive advantage said (Villalonga, 2004), nevertheless these resources are subjective and complex and burdensome to code (Conner & Prahalad, 1996). In reference to the implementation of SER this to plays a significant role in adding value to organizations, through reputable intangible assets (Vanhamme et al., 2012).

Utilizing Corporate Social Responsibility as a governance mechanism, these mechanisms (Devinney, Schwabach & Williams, 2013) may in addition be a portion of this resource package, and therefore assist in the capture of value (Zajac & Olsen, 1993) Leiblein's article 2003). Subsequently this has provided evidence that coordinated structures within company hierarchies are consistent sources of resources. Thus such RBV resources and investment opportunities offered affect the choice of governance. Formality in relationships also influences governance mechanisms, the relationship-based view establishes trust by reducing opportunistic behaviour (Ring & Van de Ven, 1992). Meidinger (2006). Describing emerging new governance systems with a focus on certifying production, in environmentally or socially appropriate ways.

Companies are structured in diverse forms of governance, as a illustration combining and diffusing knowledge (Conner, 1991) and thereafter information processing (Gulati & Singh, 1998). Integrated marketing communication has also been argued, as a source of resource for organizations that are in the capacity to convey the company's benefits (Luxton, Reid & Mavondo, 2015).

## **Methodology**

The current study aims to analyse the causes and practices of combating waste, as a strategy of Corporate Social Responsibility of hospitals and clinics. Subsequently the efforts are in understanding the usage of these strategies as a resource for organizations. The method used was qualitative through multiple case studies, hence the approach was chosen as a research strategy, due to the allowance of a detailed investigation of one or more organizations, in- sync with the data collection, thus seeking to provide a context analysis and the processes involved in the study of the phenomenon (Yin, 1994).

As specified by Glouberman and Mintzberg (2001), these organizations act with a high level of complexity, as a result of the different activities they develop (Doctor, Community, Managers and Nursing care). The data collection took place through three origins providing the triangulation of the data: i) Semi-structured interviews; ii) Analysis of site information and Technical reports; iii) Participatory observation in the areas of food production and distribution.

It must be noted that in the development of the research, the names and characteristics that identify the organizations have been withheld. Investigating the first case, the philanthropic organization is considered an international reference centre for health, having in 2016 an investment in Social Responsibility of R \$ 150 million. Two managers were interviewed in the aforementioned, a technical manager responsible for the production and distribution of food and secondly a manager responsible for sustainability. In the second case study, in the main a Public Reference Hospital within the field of education/ teaching, research and assistance. In this case study three technical managers were interviewed, they intern are responsible for the production and distribution of food. Investigating the third case, a Private Hospital, this been a cases of high complexity, the largest hospital in relation to the number of beds. Two managers were interviewed, one technical responsible for the production and distribution of food and another manager of sustainability.

The interviews were manually recorded, as required by the interviewees, subsequently the field diaries and observation notes were forwarded after the interview for validation of said the data. The analysis of the data used the technique of content analysis, characterized by a subjective interpretation of content through a systematic coding process (Hsieh & Shannon, 2005), representing similar meanings (Weber, 1990) presented through a narrative.

The process of categorizing the interviews by semantic relationships was used to highlight the conventional principles, thus the categories originate from the data (Kondracki & Wellman, 2002). Originated from the identification of these categories, they were triangulated with the reports and information of the sites. It must be noted that the differences in the contexts of the organizations were not considered in the analysis within the said categories. Groups of different interviews were organized, so that the research questions where answered in a universal manner.

## **Findings**

To analyse Corporate Social Responsibility strategies, as a source of resources for organizations by identifying the causes and practices of combating food waste in extensive hospitals and clinics. The analysis was divided into two stages the first been to identify the principal provoking or causes of food waste, followed by the practices developed and implemented by hospitals and clinics to fight waste with the institution. Consequently it was possible to analyse the hospital context and barriers that arise with these practices.

Results logged demonstrate hospital complexities, as a business model that requires regulatory incentives for the effectiveness of practices. Stakeholder engagement was highlighted as a potentiator for the development of anti-waste practices and communication among these stakeholders.

Accordingly in the analysis of the data, six common causes were primarily identified, and thereafter grouped into three categories (Communication, Planning, and External Factors) that help to explain motives and anti-waste practices. The practices were then categorized and analysed: Context (hospital and legal); Acting (engagement, responsibility, communication). Presented through an integrated narrative of the three cases.

### **Causes of waste**

To identify the causes of waste, a mapping of food distribution production processes was conducted. It was shown that the types of products used in the preparation of meals directly influence the said wastage, the preparations related directly to the patient, due to the need for a minimum reserve, as a result of changes in deity requirements throughout the day. Not overlooking special requests outside the menu of the day, such as requests for purchase by patient specifics, preparations of the employees' cafeteria. Consequently despite the monitoring of the quantity of meals prepared and served, there is change in per capita due to evasion.

A further point need to be highlighted, hygiene and sanitation products, for hygiene team awareness of dilution, quantity and access to the product such as fruit and vegetables due to the natural characteristic of the product, its fragility and perishability.

Emphasising the lack of communication in patient care is present in three causes of wastage observed. The first occurs due to changes in diets (involution, evolution and fasting) after assembly of meals, in this process the patient information does not arrive in a timely manner to the food distribution team. Furthermore the untimely release of the patient is also pointed out as a cause of waste. Medical staff do not notify the production team that there is no longer a need to prepare said meals. Communication failure seems to be present in the third cause, been in communication loop for standard present adjustments and purchase planning.

Anodizing flaws in planning and the organization within the institution are also important aspects of explaining food waste. Subsequent factors are justified by the high complexity of operations, which means intern that there is a requirement for an average stock retained. An additional cause that is directly related to the lack of planning, within the purchase of special or regional items. These purchased particularly for a specific patient that would show a low turnover in the inventory (extra purchase).

External factors, the responsibility of other stakeholders are also highlighted as the cause of waste within hospitals. The seasonality and changes in the climatic conditions affecting the quality of the fruit and vegetables.

### **Practices against Food Waste.**

There are two distinct factors in analysing wasteful practices, firstly it occurs prior to preparation as the food is demonstrated to be unfit for human consumption, and secondly when food products can no longer be consumed due to food safety reasons. In the first instant the need for a high level of engagement, awareness and communication, between the multidisciplinary teams of the organization and the patients is perceived.

The relationship with suppliers is crucial and must be carried out through a face-to-face meeting with approval and maintenance visits thereafter. When the food products have been delivered, the warehouse assistants must carry out organization aspects and the controls, the early separation and evaluation of the quality of the products delivered. A quality checklist is inspected weekly analysing the daily procedures in dry and refrigerated stocks.

The food production and distribution teams must develop conscious usage of hygiene and sanitation products, as well as institute safety recommendations. The supplier makes periodic preventive and corrective visits to the equipment (dispensers).

Communication between parties is performed through on-call reports on preferred items or leftovers that could fit on a menu. Strategies focused on involving key partners are essential in addressing the causes of hospital food waste. Its inherent in this context, the implementation of a more articulated approach, to hospital food policy bringing together a cluster of services being suppliers, buyers, plant auxiliaries, food and physical activity and nursing services, thus constituting discussion spaces where knowledge can be exchanged and best practices may be disclosed.

Considering awareness and engagement in combating waste, campaigns are conducted in the employees' dining rooms with the support of the Institutional Communication, this highlighting the proactive involvement of all participants, and not withstanding governance (Pietrobelli & Rabellotti, 2006). This then enables all stakeholders to perform and raise awareness for waste reduction.

A major factor is sustainability that is also embedded in hospitals philosophies, whether isolated to a sector or build into the strategy of the hospital. Employees frequently receive training on raw material assessment, receipting of good products or returning said to suppliers. Employees within the production line dealing with preparation of the food items this according to the technical file, should evaluate the product received from the Food and beverage stocks and updated for quantity of requisition.

Within the second stage, unfortunately where the food is no longer fit for consumption, whether either being a hygiene or storage conditions problem, the organization needs to be integrated with the chain of suppliers and other companies for the viable destination of that food. Regrettably this practice is not yet routine and common place in the hospitals investigated, however it is noted that only one case has articulated efforts with composting companies to establish partnerships and contracts.

Chiefly food that is not consumed daily or has expired but kept under controlled temperatures, could change the menu in some aspects to fit the item, re-dispenses the dispensing for production, and adjusts the quantity in the requisition ( if necessary) and furthermore in purchase planning. If the date has expired or not kept at a suitable temperature controlled environment, discard said or composting is performed manner of elimination.

In the control of food waste within hospitals, daily or monthly weighings of all produce and finally weighing of the waste material should be carried out. Please note this refers to the clean leftovers after assembly. When preventive practices are not sufficient at the hospital level , it was noted that in one case, the disposal was executed in a reciprocal suitable for composting and then weighed. This residue then stored in a cold room, until withdrawal by a third party that performs the treatment for the destination of fertilizer.

Examining the causes in regard to waste, it is imperative to understand the context, since there are substantial differences in the issues between developed and developing countries (Gustavsson et al, 2011). Notwithstanding the level of complexity of the organization. In this case, it is observed that the regulatory context in which hospitals have inserted experts and specialist, they were then pressured to comply with the norms

and accreditations, in reference to hospital waste, and infection control. The problem of food waste is not yet at the heart of hospital strategy.

## **Conclusions**

With the objective of analysing Corporate Social Responsibility strategies, as a source of resources for organizations by identifying the causes and practices of combating food waste in extensive hospitals and clinics.

Studies have revealed that organizations do not perceive systems of combating food waste as an advantageous resource, but their actions are concentrated and focused on eliminating and discarding food, already unsatisfactory for human consumption but for use such as composting. There are also limitations within the regulatory context, which prohibits donations and reuse of food, which therefore limits the development of strategies to fight waste. The characteristic of the organization was also considered overall and was pinpointed as an important point in the results. Hospitals have focused efforts on sustainable strategies for waste disposal, factor driven by the legislation that regulates.

Empirical evidence demonstrates that food waste should be addressed in a systemic view, with active participation of all stakeholders. Private governance replaces the role of public regulations and therefore can take on contrasting forms, functioning as the practices that govern chain relations with the environment; codes of conduct defined by non-governmental organizations (NGOs); or seals and certifications that support consumer demands for certain product categories such as organic food or even reduced food waste.

Development of greater independent administration likewise involving stakeholders in the company's decisions and strategies. Stakeholders involvement requires a complex composition of detailed and solid organizational changes and persuasive organizational communication. Communication is vital and also is a decisive factor in combating waste overall. Chiefly, communication determines and influences the creation of a democratic, flexible and integrated environment. By developing an integrated environment, it is possible to contribute to sustainability.

Taking the results of the research into consideration, with stakeholder engagement, shared information and integrated communication are considered core in the central aspects of reducing waste and recycling. Accordingly, in order to reduce food waste and to go beyond food safety, to maximize the benefits to society, it is necessary to deepen the system of governance, therefore food waste must be addressed in a systemic active participation of the actors.

Furthermore another important contributor to waste controversy is the emerging viewpoint of circular economy, a perspective that turns the function of resources, proposed that waste becomes an entry point to additional process (Wef 2014; Loombaa & Nakashima 2012). The hospital acts on the following basis the perspective of outsourcing the waste material that has seen composting, thus starting another productive cycle. Consistent with these issues, the circular economy platform has a broad framework that should involve various stakeholders, acting as NGOs, the private sector and the public, in local and regional systems. These circular models involve business networks that bring new economic value through the continuous interaction of resources.

The difficulty in categorizing and analysing the results was a limitations within the research, due to its sensitivity with the elements of the topic and meagre discussions in this context. Furthermore it was not possible to record the interviews that lasted an average of 1 hour, therefore part of the information could be lost in the annotations. Accordingly that is why triangulation with other data sources, equally as participant observation and technical reports, was essential.

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