

Humanitarian actions of a cultural center during the Covid-19 pandemic: an analogy with supply chain business processes

Business
processes in
humanitarian
actions

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Mauro Vivaldini and Maria da Penha Melo Malda Iglesias
PPGA, Paulista University, São Paulo, Brazil

Received 23 September 2021
Revised 23 December 2021
Accepted 27 December 2021

Abstract

Purpose – This study intends to map the supply chain and characterize the business processes of a cultural center in an aggregated and coordinated operation to serve families in need during the Covid-19 pandemic. This case study analyzes distinct aspects of humanitarian management capable of contributing to the management of commercial supply chains.

Design/methodology/approach – Adopting a case study approach, this research contextualizes the view on humanitarian supply chains related to the importance of participating organizations' engagement and the relationship and similarity with business organizations.

Findings – The study presents the model adopted to undertake the aid operations, maps the cultural center's humanitarian supply chain, clarifies the relationships and operations developed and compares the business processes with those of commercial chains. Possibilities and initiatives are discussed that can contribute to business organizations' greater engagement in humanitarian actions.

Research limitations/implications – Restricted to one case involving the cultural center and the other agents researched, the information and considerations are limited, and any generalization should be treated with caution.

Practical implications – The study is a practical example that clarifies how business organizations can engage in the supply chain of humanitarian institutions. It also illustrates ways to help these institutions improve their fund-raising initiatives.

Social implications – This study is justified by the representativeness of humanitarian actions in critical periods such as the Covid-19 pandemic. The study also presents potential ways to contribute to operations of this nature and to encourage business organizations to improve participation in humanitarian movements.

Originality/value – Many studies on the subject have highlighted the importance of comparing humanitarian and business supply chains through real case research.

Keywords Supply chains, Humanitarian actions, Cultural center, Covid-19

Paper type Case study

1. Introduction

Business-humanitarian partnerships seek synergies between companies and humanitarian organizations (HOs) to meet humanitarian demands and also seek to support corporate social responsibility. These actions are characterized, for example, by donations (money, goods, services), the provision of technical or managerial knowledge, marketing directed toward the cause, logistical support or specific actions for field activities (Andonova and Carbonnier, 2014). An influencing aspect of this type of connection may be in the resources available to develop partnerships. Business organizations (BOs) have difficulty paying up-front costs for uncertain events or possible events. Therefore, humanitarian partnerships still face many challenges (Nurmala *et al.*, 2017).

In this sense, HOs can improve engagement by incorporating the needs or preferences of BOs, thus creating value that both can perceive (Carland *et al.*, 2018). This notion suggests that not creating economic value in the context of humanitarian aid from private companies can compromise engagement. Comparatively, they need to perceive value in the same way as they already perceive social and environmental responsibility actions.



Journal of Humanitarian Logistics
and Supply Chain Management
Vol. 12 No. 3, 2022
pp. 333-358
© Emerald Publishing Limited
2042-6747
DOI 10.1108/JHLSCM-09-2021-0092

On the other hand, the transfer of knowledge from business supply chains (BSCs) to humanitarian supply chains (HSCs) has been discussed as an initiative capable of producing process improvements ([Abidi et al., 2020](#); [Beresford and Pettit, 2021](#); [Singh et al., 2018](#)), despite the caveats that HSCs are much more complex ([Rasyidi and Kusumastuti, 2020](#); [Pascucci, 2021](#)). This approach may require knowledge of the BSC to align private-sector value creation with the objectives of the humanitarian entity. To this end, it is essential to understand the objectives and priorities of the agents involved in a supply chain (SC). Consequently, by analogy, it can be said that partnerships with HOs can strengthen the understanding and management of business processes in the SC by HOs.

Although, on the one hand, HSCs face issues similar to business chains, on the other hand, anticipation, proactivity and responsiveness are directly related, in many cases, to the numbers of lives saved and the reduction of harm ([Chandes and Paché, 2010](#)). This context increases the complexity and hinders the replication of actions as each event can constitute a new chain ([McLachlin and Larson, 2011](#)). Despite this, the literature has consistently asserted that HSCs can be improved by adopting practices from BSCs ([Polater, 2021](#)). However, this position does not negate the fact that the opposite must also be true ([Rasyidi and Kusumastuti, 2020](#)).

This study intends to explore the supply chain management (SCM) theme in humanitarian actions in a context where the coordinator of the supply actions is a cultural center (CC) that operates in partnership with private entities in order to help people and entities in need. Therefore, in this study, in addition to the HSC and BSC approaches (based on examining business processes), there are three differentiating characteristics: the operations are coordinated by a CC, which is uncommon in cases of humanitarian operations ([Zhao and Liu, 2018](#)); the supply continuously serves those in need ([Jabbour et al., 2019](#); [Agarwal et al., 2019](#)); and the case occurs in a period marked by the Covid-19 pandemic. In this context, this research will be guided by the following research questions (RQs):

RQ1. How are SC business processes characterized in humanitarian aid actions?

RQ2. How can these business processes contribute to HSC management and BSCs engagement?

Although humanitarian operations have both immaterial and material components, their central characteristic is the ability to meet the specific needs of donors/beneficiaries ([Heaslip, 2013](#)). It is within this context that this study is situated, i.e. contributing to the understanding of SCM, through business processes in humanitarian actions, as a differentiated service, capable of involving a group of companies in an aggregated and coordinated operation to serve those in need ([Jabour et al., 2019](#)).

On the other hand, a lot can be learned from HSCs regarding managing interruptions or unexpected events in BSCs ([Kovacs and Sigala, 2021](#)). This article can help to improve understanding in this context. Other aspects that justify this research are:

- (1) Studies related to HSCs, compared to BSCs, are still under development ([Vega, 2018](#); [Zhao and Liu, 2018](#)). There is a lack of studies exploring the practices adopted in HSCs that can be aligned with those of BSCs ([Charles et al., 2010](#); [Gómez-Pantoja et al., 2021](#)).
- (2) The ability to explore the theme in a CC during in the context of an ongoing humanitarian service and in a period marked by the Covid-19 pandemic ([Heaslip et al., 2018](#)).
- (3) The vision of HSC management has been the subject of growing interest among researchers in the area, which is likely to evolve in the coming years ([Leiras et al.,](#)

2015; Nurmala *et al.*, 2017), especially in comparison with BSCs (Thompson and Anderson, 2021) and in less developed regions such as Latin America (Wamba, 2020).

2. Theoretical contextualization

In recent years, humanitarian actions have been expanding and are mobilizing organizations to meet the needs of vulnerable people in different situations (disasters, health, social and economic issues) (Agarwal *et al.*, 2019; Jabbour *et al.*, 2019). However, more and more BOs are engaging with HOs, valuing their social actions (Gossler *et al.*, 2020). Vulnerable situations generate difficulties in dealing with survivors, assisting families, social needs and especially the lack of resources (Kebriyaii *et al.*, 2021; Wamba, 2020). The movement of these resources to those in need characterizes many operations for those who led aid actions (Polater, 2021). In such situations, many operations are related to providing services involving the acquisition and movement of materials: storing, collecting and delivering food and medicine; supporting hospitals with supplies; and handling materials for shelter, products and materials from donations (Kovacs and Sigala, 2021). In this context, it is challenging to understand SCM and the business flow constituted in such operations (Gómez-Pantoja *et al.*, 2020).

HSC management involves challenges similar to those in BSCs. In turn, in HSCs, lives depend on proactivity and responsiveness. Each event has different characteristics since success in meeting one situation does not guarantee success in another (Chandes and Paché, 2010). Therefore, the unique HSC context increases its complexity and makes it challenging to frame practical actions (McLachlin and Larson, 2011). Therefore, proper management of these chains not only reduces costs and time, saves lives and reduces suffering (Day *et al.*, 2012), it can also highlight operational models and experiences applicable to other HOs or even BOs.

In this sense, this paper contextualizes the view of SC business processes from the perspective of humanitarian logistics. It discusses HSCs and BSCs, highlighting the importance of the relationship and engagement of the participating organizations.

2.1 Business processes and humanitarian logistics

Historically, the business processes addressed in the work of Lambert (2004) are recognized for illustrating the different operations that run throughout SCs, intersecting with the companies and functional areas of each one. These areas include marketing, research and development, finance, production, purchasing and logistics. There are several activities and processes within these areas, but they are functionally related. Each company in the SC must consider the different business processes, but the importance of each one varies according to the company and its activity. Consequently, by relating HSCs with BSCs through organizational and business recognition, this model is an alternative capable of helping in drawing comparisons.

Regardless of the actions that lead the BO to contribute to the HO, practices related to business processes, such as implementing performance measures, can be incorporated into HSCs, contributing to the attribution of value to operations (Abidi *et al.*, 2020). Similarly, it has been argued that the humanitarian sector could use collaboration and coordination actions arising from the business model since these requirements are seen as deficient in the management of their SC. Even after events or disasters, HOs could continue to collaborate, which would help organizations share experiences and information and improve future activities. In this context, the development of partnerships, regardless of whether they are philanthropic or not, become an alternative (Nurmala *et al.*, 2017). Specifically, BSCs already have multiple partners linked to their business, but this is not necessarily the case for HSCs. This may be due to the view that HOs believe in the importance of being independent;

similarly, private organizations have reservations about the level of professionalization of HOs (Bealt *et al.*, 2016). In turn, it must be recognized that strengthening the relationship between HOs and BOs would help to understand the differences between their processes.

One of the main differentiating characteristics between these organizations is the demand pattern. In BSCs, demand patterns tend to be stable or predictable, as there is regularity in consumption (Abidi *et al.*, 2020; Balcik *et al.*, 2016). In HSCs, demand is typically unpredictable, depending on the type of operation required, execution time, location, etc. (Pateman *et al.*, 2013). In this context, a preponderant factor in the operations is the service time. The BSC is based on what was agreed (between suppliers and buyers) in the order and on factors related to the delivery conditions (Beamon and Balcik, 2008). Typically, these same conditions are not commonly repeated in the HSC by the imposed emergency, thus contrasting with the agreed time cycle in the commercial conditions.

Distribution is fundamental in BSCs. It is common to have pre-defined locations, usually in distribution centers (central or otherwise), in order to meet a level of service agreed with their customers (Balcik *et al.*, 2010). Consequently, in HSCs, this is a difficult challenge to articulate and solve in responding to unexpected demands (Gatignon *et al.*, 2010), but that can be better adjusted for routine and repetitive events. In this same process, stock control is critical in meeting demand. While in BSCs the inventory is monitored and controlled based on the level of service agreed with the customer, HSCs are guided by the type of demand and project, usually characterized by short duration and fluctuating stock (Balcik *et al.*, 2016; Bottani *et al.*, 2017).

The information flows and associated systems are essential both in BSCs and HSCs as they impact the agreed or expected response level. What sets them apart is whether technology is adopted or not. While in HSCs the information flow tends to be imprecise or non-existent and not always supported by state-of-the-art technology, in BSCs it is structured and aligned with the agreed service level and the companies involved. On the other hand, regardless of the technologies applied, both operate in the face of constant changes and require a transparent relationship that allows the exchange of timely and accurate information (Scholten *et al.*, 2010).

On the other hand, a common challenge both for HSCs and BSCs is ensuring visibility to those involved in the chain regarding services and products (attributes and information such as inventory, delivery, etc.). The challenge lies in the difficulties in defining what each entity involved can share or not. Furthermore, there are few systems for sharing information between all actors in the SC (Charles *et al.*, 2010). Collaborative management between entities is a crucial element to achieve the means to make the SC more visible (Vivaldini and de Sousa, 2021) and can occur through one or more common tasks (information sharing, resource mobilization, joint acquisition, transport). Along these lines, Prasanna and Haavisto (2018) defended collaboration as a means to build partnerships between HOs and BOs. They also suggested the formation of targeted clusters as a means of mobility to obtain a faster response when events occur.

2.2 Business supply chains and humanitarian supply chains

HSCs start with the involvement of suppliers and donors in order to serve beneficiaries or those in need. In BSCs, supply and distribution operations are central to the participation of different agents with commercial interests (Raillani *et al.*, 2020). However, the reason for engaging business partners in humanitarian actions is due to corporate social responsibility, publicity, employee motivation, possible learning (Bealt *et al.*, 2016; Gossler *et al.*, 2020; Vega and Roussat, 2019) or even their location (Frennesson *et al.*, 2021; Munyaka and Yadavalli, 2021). Implications related to this management include: the more rigorous the approach to determining service parameters, the higher the cost of the operation; having more information about the parameters

of the event will reduce uncertainties as well as costs; when parameter uncertainties are taken into account, the excess cost is reduced; and proper preparation before the disaster (training, storage area, etc.) facilitates care and reduces costs (Kebriyayi *et al.*, 2021). Thus, given the many implications, an HSC is characterized by the uncertainty of demand, limited information, irregular supply patterns, short deadlines and lack of resources (Ngwenya and Naude, 2016), depending, in most cases, on volunteers (individuals, companies, governments, associations, churches, etc.) engaged in actions.

Responding to consequences arising from events marked by disasters, pandemics and epidemics requires resources and knowledge on a considerable scale. In such cases, working in separate silos does not help in understanding or building the HSC infrastructure. It necessitates effective collaboration between governments, aid organizations, companies and other stakeholders to build the SC (Thompson and Anderson, 2021).

The dynamics and conditions of the environment for humanitarian aid operations caused by unexpected situations increase management difficulties (Fikar *et al.*, 2018). Therefore, the management of humanitarian actions must consider the need for structures and a support network. These structures must be dynamic, as the number and types of organizations included change at different stages. However, the level of coordination between different actors may differ according to circumstances and needs. Added to these variables, the demand management imposed by emergencies is more challenging than in BSCs. The reason is that the involvement of multiple stakeholders creates multiple sources of information and related demands that may not reflect victims' real needs victims (Polater, 2021).

Compared to BSCs, HSCs are considered more unstable due to the situations' uncertainty (Altay *et al.*, 2018). Factors such as the speed of disaster onset, the location of donors and aid companies, correct information on the local situation, specific conditions in the region, such as civil unrest, socio-political situation, security and damaged logistical infrastructure, all come into play (Antai *et al.*, 2015; Oloruntoba and Kovacs, 2015). While there are claims that HSCs should be guided by BSC practices (Scholten *et al.*, 2010), the opposite can also occur since humanitarian operations' complexity, uncertainty and instability conditions are much more prevalent than in business (Rasyidi and Kusumastuti, 2020).

Polater (2021) discussed having HSC operations governed by service level agreements with participants (mainly contractors). In this sense, the author suggested simultaneously evaluating the level of agility, flexibility components (mix, volume, product and delivery flexibility), efficiency (completeness and reliability) and responsiveness (speed, reactivity and visibility). Although the assessment can provide a quick and sufficient response to changes, other authors have highlighted the importance of resilience in maintaining performance (Ivanov, 2020; Oloruntoba and Kovacs, 2015), adapt plans and strengthen collaboration and coordination among chain participants (Singh *et al.*, 2018).

BSCs have a management model based on continuous operations. In contrast, humanitarian operations arise from events (such as a disaster) for which solutions must be developed and actions begun. The response process in most events tends to be relatively similar, differing in factors such as the number of people affected, the resources needed and how they will be allocated. The main agents involved are affected communities, volunteers and humanitarian and government agents (Tomasini and Wassenhove, 2009). In this case, it is necessary to consider that the collaborative contribution between these agents facilitates and integrates operations. In addition, establishing partnerships helps with needs, such as those related to the donation of goods (Heaslip and Kovacs, 2019; Rasouli, 2019). Humanitarian actions that require SCM similar to that in business operations are those related to the formation of food banks to fight hunger, including inventory management, purchases, product compatibility, and the means of collection, distribution and delivery (Gómez-Pantoja *et al.*, 2021).

Regarding the adoption of business practices in humanitarian operations, the interest in improving the performance of humanitarian operations stands out. One path discussed is the use of logistics service providers (LSPs). Although this practice entails an inevitable delay, likely generated by the diversity of agents involved in the HSC and the lack of standardized processes (Dufour *et al.*, 2018), it is believed that the mobilization of commercial LSPs will provide knowledge and experience to humanitarian operations managers (Cuzzolino *et al.*, 2017). In some cases, according to the contract, the LSP is fully responsible for taking care of its client's logistical operations and plays a fundamental role in the SCs (upstream and downstream) (Gossler *et al.*, 2020). LSPs are increasingly seen as strategic partners that can play a crucial role in improving performance (Vivaldini and Pires, 2013). Thus, they can provide a competitive advantage to their customers, and consequently also to HSCs.

3. Methodology

A qualitative approach based on a case study (Eisenhardt, 1989; Yin, 2014) was used in this research. This approach can contribute to theory (Yin, 2014) by studying a current phenomenon in its real-life context (HSC operations during the Covid-19 pandemic). The adoption of the case study approach in this research is due to its representativeness (Ketokivi and Choi, 2014; Fawcett *et al.*, 2014) because theory regarding HSCs is still being developed and the organization studied provides a comparison with practices applied to BSCs. This can contribute to the theory due to the limited number of studies in this context (Barratt *et al.*, 2011; Voss *et al.*, 2002).

3.1 Research organization

Following Yin (2014), this case study aims to explain and describe a real case and illustrate (in the processes) the application of humanitarian actions organized by a CC, exploring the SC business processes. Thus, this study can lead to new insights, expose real problems and provide comparisons and valuable information to managers (Voss *et al.*, 2002). Figure 1 illustrates the research and development of the article.

In the first stage, the research compares possible business processes concerning HSCs. The second stage addresses the engagement of organizations in humanitarian actions and the relationship between HSCs and BSCs. Through these steps, the RQs were substantiated,

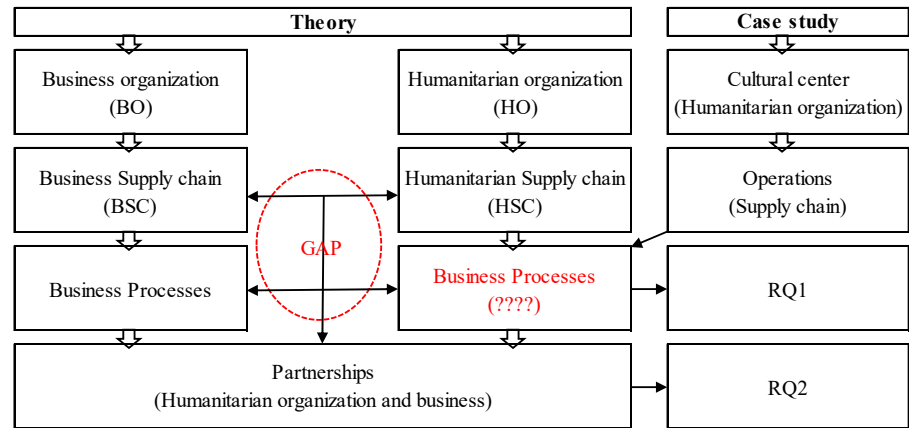


Figure 1.
Organization of the
research

and the researchers' focus on the case study to achieve the objectives was established (Ketokivi and Choi, 2014; Yin, 2014).

In a second stage, the authors contacted a CC whose objective is to promote and disseminate regional culture and religiosity in the northern states of Brazil. During the Covid-19 pandemic, the CC expanded an existing program for humanitarian aid to affected people (mostly unemployed and informal workers). This CC has relative importance for the theme, as it is not a specialized agency for this purpose. The CC also organizes actions characteristic of a SC, i.e. comparable to the business environment, thus representing a favorable environment in which to answer the RQs. It is noteworthy that some CCs promote specific events for collection and help but do not operate and organize continuous actions such as those addressed in this study.

First, contact was established with the president of the CC, who subsequently permitted the research to proceed, clarifying how the researchers could interact with the team and access the location of the operations. In this regard, it is essential to highlight that the case was selected because the researchers, given the opportunity offered, could have access to a situation previously inaccessible to scientific observation (Yin, 2014). Alternatively, as Otley and Berry (1994) stated in their seminal article, a case study can occur when the opportunity to examine a phenomenon happens accidentally, by chance.

Following the authorization for the research, the researchers had a preliminary conversation with the president of the CC. The objective was to understand the scope of the work, how it would be conducted, the limitations of the local team and the limitations of the researchers. A work schedule was established, characterized by telephone interactions, virtual meetings and face-to-face visits with the team and companies involved in the operations (respecting all Covid-19 health protocols).

3.2 The company studied (analysis unit)

The CC under study is located in the city of São Paulo, Brazil. It was created as a social organization and its objective is to promote events and actions, at its location, based on five pillars: music; gastronomy; culture; faith; and social assistance. In other words, it has a structure that organizes shows, a food court with typical foods, a Church that promotes masses, weddings, baptisms and social assistance that supports residents and organizes professional courses. The ordering of activities that complement each other generates a flow of people that can support each other.

The team and the pillars of the CC are grouped into three departments:

- (1) General Administration (administrative and financial): Its role is to take care of the set of restaurants, sales kiosks and amusements at events, as well as at handicraft stores and the Church. These units function as independent companies and are accountable to the management.
- (2) Marketing and Events: This is a strategic area of the CC, responsible for the marketing and communication/production of events and shows. It is managed by a marketing coordinator who divides its professionals into the following areas: art/creation; promotion; press relations; the production of cultural events; and the production of shows.
- (3) Social Action: This board directs and coordinates the entire social area, promoting various actions (education, recycling cell, support for the unemployed, humanitarian aid, etc.). In this sense, it works by coordinating employees (people and voluntary companies), receiving donations of food materials, recyclable materials, packaging materials and transforming this aid into food for donation to the needy. This board is the focus area of the present study.

3.3 *The gap*

Understanding how HSCs are constituted and understanding their differences compared to BSCs represents a challenge. The breadth of SCs, due to the many processes and companies involved, the particularities inherent to each type of business, each participating agent and volunteers, the implications arising from operating conditions, and the events themselves, increase the need for research. In periods such as the Covid-19 pandemic, the importance of studies such as this one is clear. This unexpected event contributed to increased unemployment and a reduction in income for thousands of families (as happened in Brazil; see <https://www.bbc.com/news/world-latin-america-56765150>). Therefore, studying the SC of a HO in an ongoing operation (real case), not always accessible to researchers, has as a motivating factor the possibility of new and innovative discoveries that can contribute to organizations and provide several insights capable of fostering much other research. In this sense, understanding the adherence to business processes (applied to a BSC) by a HSC is a challenge due to the lack of studies on the subject and the difficulty in studying the phenomenon in events or disasters that usually are temporary. In addition, studies that discuss and provide ideas for the insertion of BO in humanitarian actions are essential to provide feedback to the support systems for those in need.

3.4 *Single case*

The case provided the researchers with direct participation alongside those involved in the operations, obtaining information not always accessible by other methods (Yin, 2014). This pragmatic approach can contribute to the development of theory (Gammelgaard, 2004) in unique cases such as this. The circumstances justifying the case are as follows:

- (1) It is a critical case because the related theory is still developing; there has been limited comparison to date between HSCs and BSCs based on practice.
- (2) The circumstances offered by the case are rare and unique, as the researchers' immersion in the practical application of humanitarian operations in the pandemic is unique.
- (3) The case is representative in studying a unique model of humanitarian action, and importance has been attached by organizations to their inclusion in programs of this nature (Bealt *et al.*, 2016; Gossler *et al.*, 2020; Raillani *et al.*, 2020; Vega and Roussat, 2019).
- (4) The chosen case can reveal new insights by studying, in addition to the HO, the agents participating in the SC. This scope allows for a better understanding of the processes and their relationship with the business environment.
- (5) Because the study takes place over some time (about a year), it has the characteristics of a longitudinal study, covering a period in which the authors interacted deeply with the companies (people) involved in the project.

3.5 *Data collection and analysis*

Table 1 clarifies the sequence of contacts (phone calls and in-person visits) through which the information was obtained directly by the authors, involving the following procedures:

- (1) Face-to-face visits at the CC. This step was intended to understand the operational flow and the processes applied, encompassing: collecting and donating materials; receiving recycled material for processing; purchasing and receiving products; storage, picking and loading; and delivery to the needy.

Interviewee	With field research	With the study	Estimated interview time
President of the CC	Authorized the carrying out of the survey, visits and interviews with managers and external companies	Established the CC overview and the role of each area and company in CC operations	05.20.2020 – Call = 20 min 06.03.2020 – Call = 10 min 07.15.2020 – Visit = 1:30 h 08.21.2020 – Virtual = 50 min 09.08.2020 – Visit = 2:00 h 09.22.2020 – Virtual = 40 min 11.16.2020 – Call = 10 min 01.20.2021 – Call = 10 min 03.11.2021 – Call = 10 min 07.15.2020 – Visit = 1:30 h 09.08.2020 – Visit = 2:00 h 09.22.2020 – Virtual = 40 min
Marketing Director and General Manager	Explained the processes and presented how their areas work in the CC	Contributed to the narrative about the CC and the role that the areas play in raising funds for donations	
	In general, they also described the objectives and relationships of the CC with those in need, as well as various entities and companies	Helped understand the origin of individual and business donations and the CC's relationships with the government, the needy and other entities and companies. Contributed to the narrative of business processes	
	Exemplified and clarified the effect of the pandemic on internal areas in obtaining donations, highlighting the importance of the work of the CC for the needy	Critical in constructing the CC-SC model, helping to understand who was involved and how they related internally. Also helped in understanding the business processes	
Social Director	Explained and clarified all the operations the CC performs, from capture, product arrival, assembly and output to delivery	Helped in the narrative of the operations and the role of the agents involved. Was critical in assembling the SC model, correcting it and adding his vision, as well as contributing to the understanding of business processes	07.15.2020 – Visit = 1:30 h 09.08.2020 – Visit = 2:00 h 09.22.2020 – Virtual = 40 min
	Facilitated and followed interviews with external companies	Helped in capturing information on how intentions and operations turn into donations. Helped also in providing an understanding of the business processes	10.05.2020 – Visit = 45 min 11.09.2020 – Visit = 60 min
	Clarified operational difficulties, details regarding instabilities and uncertainties affecting day-to-day work	Helped clarify how operations occur and how they decide on inventory, equipment leasing, hiring, etc. Also thus contributed to the understanding of business processes	12.07.2020 – Visit = 30 min 01.11.2021 – Visit = 30 min 02.01.2021 – Visit = 45 min
	Presented the recycling cell	Allowed the authors to understand how and why the CC receives the materials for recycling and transforms them into donations	

(continued)

Table 1.
What (and how)
interviewees
contributed

Interviewee	With field research	With the study	Estimated interview time
Operational Manager	Gave details of how the CC receives recycling material, makes selections, asks questions and sells or returns to companies	Contributed to the comparison of operations with those that take place in a CSC, and consequently with understanding the business processes	10.05.2020 – Visit = 45 min 11.09.2020 – Visit = 60 min 12.07.2020 – Visit = 50 min
	Clarified how the CC assembles food packets, stores the foods and coordinates controls, movements, loading, etc. Explained how the CC manages and controls the workforce, productivity and quality of operations	Contributed to the comparison of operations with those that take place in a CSC, and consequently with understanding the business processes Helped in understanding and comparing a HSC with a CSC	01.11.2021 – Visit = 60 min 02.01.2021 – Visit = 45 min
Buyer	Explained how and when it operates Talked about hiring a LSP	Helped in the narrative concerning the supply of food, the assembly of food packages, and business processes Clarified LSP commitments and sporadic hiring	01.11.2021 – Visit = 60 min
LSP Manager (external)	Described how the LSP acts and who hires it	Helped to understand the role of the LSP in the narrative and the model presented	01.27.2021 – Virtual = 45 min
Three donor companies	Spoke of the commitment to, and importance of, delivery Clarified the help provided and the importance of working with the recycled material Explained their role as social and environmental agents	Helped in understanding performance indicators used by the CC Contributed to the narrative of how the recycling cell operates and understanding business processes Reinforced the vision on the possibilities for companies to participate in humanitarian actions	01.27.2021 – Virtual = 30 min 02.18.2021 – Virtual = 40 min

Table 1.

- (2) Interaction through face-to-face interviews with professionals (see Table 1). The authors established a guide for the questions to maintain the required focus. The information and considerations were noted, recorded and organized to support the information analysis.
- (3) Clarification and the use of secondary information during information description and analysis.

Interaction with the respondents, the authors’ participation with the operational team and the possibility of returning to the interviewees to clarify doubts all strengthened the study’s narratives, information and considerations. These steps reflect the validation criteria proposed by Yin (2014):

- (1) *Construct validity*. The authors’ direct interaction allowed capturing a lot of evidence from different professionals in the organization and the companies involved, making it possible to connect the research objectives to the sequence of information collected.
- (2) *Internal and external validity*. This was carried out by analyzing information obtained from different sources, the information described, the mapping of the SC presented and considerations compared to theories. It is worth highlighting the importance of interaction with CC managers and their support in external interviews. This procedure allowed clarifying the researchers’ and interviewees’ understanding of information from different sources, improving the validity of the information obtained.

- (3) *Reliability*. Reliability is based on evidence from the research (Table 1), the description of the information, and examples highlighted by the study.

4. Case study

Section 4.1 describes the actions carried out by the CC's social activity board. This area manages all actions and operations to raise funds, which are transformed into food for donation to the needy. In Section 4.2, based on their understanding and the information collected, the authors describe the existing processes and operations that characterize the CC's HSC. The relationships and roles of the agents involved in the processes are discussed in Section 4.3.

4.1 The object of study at the CC

The object of study, as previously mentioned, was the social pillar. Among the actions that the CC undertakes, food distribution and the related actions that promote this operation stand out. Such actions during the Covid-19 pandemic gained even more importance due to the significant increase in the number of people affected by the lack of jobs and their subsequent need for help.

As illustrated in Figure 2, there is a fund-raising movement promoted by the CC. It works in a cycle, the actions of which (developed internally) must provide food products to the social area. In addition to voluntary donations from individuals and companies, the following five pillars are addressed:

- (1) *Music*. By promoting parties and concerts, the CC obtains donations and generates income to purchase food. This action during the pandemic was suspended.
- (2) *Gastronomy*. Characterized by bars and restaurants, selling typical food inside the CC. They operate not only on event days but also on regular days. The sales support

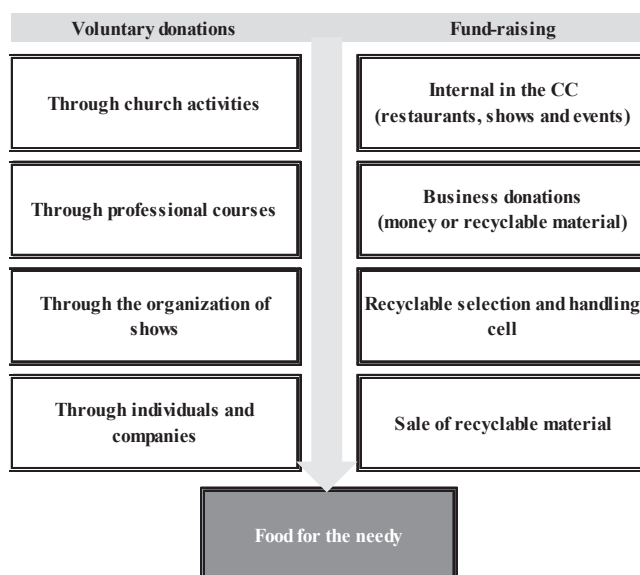


Figure 2.
Donations and fund-
raising

the purchase of food for donation. They were partially functioning (under imposed restrictions) during the pandemic.

- (3) *Culture*. This involves holding events and exhibitions to attract the public, promoting regional culture and customs; donations are encouraged during these events. They were also partially operating during the pandemic, complying with the restrictions imposed.
- (4) *Faith*. This pillar concerns the actions of the Church related to masses, baptisms and weddings. There are no charges, but these celebrations encourage food donations and the faithful's collaboration with community work and volunteers. This group acted during the pandemic, respecting the restrictions imposed by the health authorities.
- (5) *Social assistance*. This involves different action fronts, aided by companies and experts supporting most services. This includes, for example, offering recreational courses such as dance and theater, publicizing job openings, clothing donations (winter campaigns), medical campaigns such as eye exams, and professional courses such as makeup, crafts and construction. The aim is to address the community's needs by providing help, facilities and opportunities. This area encourages and organizes food donations for those in need, whether for the local community or for entities spread across the country that express their need for help.

Another action developed by the CC's social activity board is the interaction with companies that donate recyclable materials or hire recycling services, generating resources to purchase food. This operation is orderly, similar to a production line, in that it operates to handle, sort, organize, return or sell material.

Therefore, the donation of food administered by the CC's social activity board has similar characteristics to the operations of a BSC, not only in terms of the action of donating food to the needy but also in terms of the different operations they carry out, such as:

- (1) Purchasing and collecting materials;
- (2) Handling, storage and stock management;
- (3) Picking, packing and loading;
- (4) Transport and distribution (contracted to an LSP);
- (5) Selecting recyclable materials;
- (6) Reverse movements as in the case of recyclables (which in some cases return to the donating companies);
- (7) Hiring an LSP for the storage and movement of materials (specifically in large campaigns).

4.2 The humanitarian supply chain in the cultural center

It is possible to define an organized flow in the SC that guides the movement of donated products to the needy. As part of this flow, it is possible to see the characteristics of existing business processes.

The CC's social activity board can be understood as SC's focus company. This definition is because it coordinates all the agents and operations involved to enable donations to reach those in need, as illustrated in [Figure 3](#):

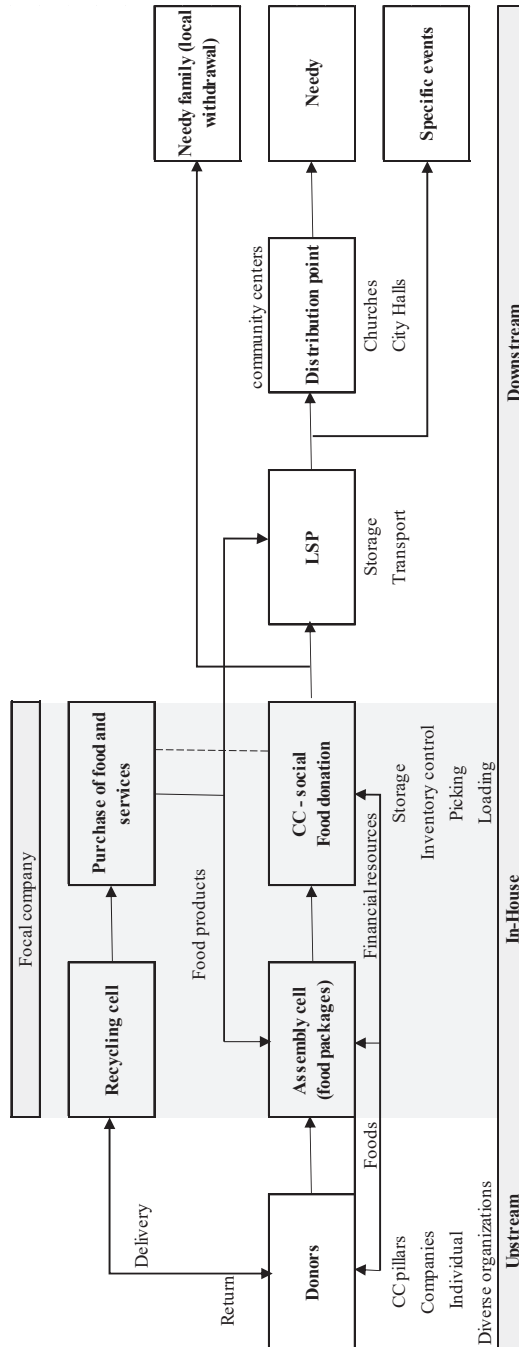


Figure 3.
The CC's humanitarian
supply chain

There is, therefore, a flow from the upstream to the downstream direction. The donor expects that their help will reach the final destination, i.e. the needy. This flow is characterized by the movements that occur according to the following operations:

- (1) *The focus company.* In this study, this is considered to be the CC's social activity board, which leads and organizes the operations. Internally, the board carries out activities to collect resources, manipulate the products and transform them into a standard package comprising various foods. Three cells operate internally: the purchasing cell, which supports the purchase of services and products necessary to assemble the packages; the recycling cell, which selects products for companies that donate or outsource services to the CC (the funds received are for the purchase of food); and the food package assembly cell, which looks after storage and storage control, package assembly, separation, loading and local delivery operations.
- (2) *Donors.* There is product donation and money donation (used for purchases made directly by the CC). In the case of large amounts of food, the donors themselves contract the delivery to the CC. In other words, the CC is usually not involved in contracting freight or collecting donated food. Notably, some of the donations are made by individuals or churches, whose quantities are not representative as they are relatively quite small, involving direct, individual deliveries (in total, however, these donations represent large volumes).
- (3) *Internal product movements.* The CC has a specific area for the storage and movement of products. Manual pallet-trucks are usually used for internal movements because the products are stored on pallets commonly adopted by the market. In specific cases (significant and standardized volumes), mechanical forklifts are hired for extensive movements and operations. The picking, storage and control processes are entirely manual. It is worth remembering that, usually, stocks do not accumulate, as there are two stock limiters: the expiration date of the products; and the constant demand.
- (4) *Loadings and delivery.* Once the freight is contracted, the local workforce loads the truck and the LSP monitors and follows up on the local delivery. The CC only confirms this operation at the end of the process. Note also that there are deliveries made on-site to families who register as needy.
- (5) *Distribution point.* Deliveries are usually offloaded completely manually by local volunteers. Distribution to the needy follows models organized by local leaders or that pertain to specific events characterized by the need for food, such as the creation of a delivery task force in response to a disaster.

4.3 The role of agents involved in operations

Regarding the supply of food to the needy, the SC of the CC's social activity board has operations characterized as upstream, in-house and downstream. The objective is to provide food packages to needy families. These families can be from the local community or a remote location (such as other villages or cities). The needy may also encompass those hit by natural disasters, such as floods or landslides. Accordingly, the description of these processes and the role of the agents involved are presented below:

- (1) *Donors.* Central elements of the entire process, characterized by:
 - Individuals who donate by participating in actions conducted by the other pillars of the CC, such as masses, concerts, courses, restaurants and events that take place internally at the CC.

- Companies that voluntarily donate products or even companies that donate their recyclable waste and allow it to be sold to third parties or reimburse the return of the material selected as a service.
 - Individuals who voluntarily donate products or campaigns created to mobilize donations, as in the Covid-19 pandemic or certain types of disasters.
 - Other social organizations mobilized to collect products and deliver them to the CC to assemble the food packages. Organizations and people also donate financial resources.
- (2) *Recycling cell.* This cell operates with recyclable products donated by partner companies. The CC carries out product separation by selecting products that can return to the donor or be sold to new manufacturers to be re-manufactured.
 - (3) *Food package assembly cell.* In this operation, the products and the supplies for assembly are stored in the CC's warehouses (or by an LSP). It is similar to an assembly line, operated on sorting tables, where products are arranged and placed in standardized boxes.
 - (4) *CC management.* The CC has a warehouse that stores the products and manages all movement, storage and stock control tasks. It carries out the entire process of picking and loading the delivery trucks. At the same time, the entire management arising from these activities is linked to the CC's social activity board, which maintains an administrative team for these activities. These activities consist of coordinating donations and their receipt, recycling processes and package assembly. In addition, it works on adapting the workforce, carrying out the necessary controls, purchasing products and contracting the LSP (for storage, when necessary and transport). Regarding the operations themselves, the workforce used is primarily people from the prison system under an agreement with the government. There is also a need to have volunteers or occasional agencies that mobilize a larger contingent of professionals when necessary.
 - (5) *The LSP.* This agent can be either hired or a volunteer. Its operations involve delivery to entities from the other cities, and storage when necessary. Usually, this process occurs when there are operations involving large volumes marked by natural disasters that mobilize many donations or campaigns directed to a distant location (e.g. during the Covid-19 pandemic).
 - (6) *The distribution point.* Traditionally, long-distance deliveries, as well as disasters, require the involvement of local coordinators (churches, communities, city halls, etc.). In this case, they are responsible for receiving deliveries and making donations to those in needs on the spot.
 - (7) *The needy.* The needy represent the final delivery point, whether local needy families that directly collect the food donated at the CC, remote needy individuals living in another region (usually this support is constant, through entities previously approved by the CC) or those affected by a specific disaster (such as the Covid-19 pandemic) that require temporary help.

5. Case analysis

Several authors (Antai *et al.*, 2015; Polater, 2021; Thompson and Anderson, 2021) have asserted that HSC operations are not very different from business operations. The case

studied indicates this since the processes are equivalent. What differs is the interest and role of the participating agents and the nature of the operation. The pressure imposed on the commercial environment is also different, as HSCs depend on donations, operate without estimates and forecasts since demand is inconsistent, and, in most cases, the service is deficient. This deficiency is noticeable in the case studied, as respondents commented that the more they donated, the more new requests for donations from other regions arose. Therefore, it is possible to deduce how volatile demand is. Specifically, it is met according to priorities and requests. This aspect complements the discussion about understanding demand (Abidi *et al.*, 2014; Pateman *et al.*, 2013) in humanitarian operations.

However, regarding the differentiated view (or not) of HSCs and BSCs, the present study, in a comparative way, adopts Lambert's (2004) business process model, already consolidated in the literature on SC (see Table 2).

An essential point in SCM, not mentioned previously, is the information flow. In the case studied, there is no application of specific software traditionally used in this type of management (such as ERP, WMS, TMS, etc.). The only support they have is basic computers (CPU and notebook type) that they use for controls. To communicate, they use e-mail or cell phones (WhatsApp). This finding confirms the theoretical position of the lack of technology-supported systems in humanitarian operations (Kovács and Spens, 2011; Pettit and Beresford, 2009; Scholten *et al.*, 2010).

Comparatively, the CC combines activities similar to BSCs in the logistical flow, such as managing donated products, storage, stock control, handling, and transport, and making deliveries to the needy. As demand is always greater than the supply, there are no significant volumes of stock, which facilitates control and handling. However, the CC seeks to achieve certain goals and a minimum standard of service, confirming the importance of coordinating humanitarian operations to an established standard (Beamon and Balcik, 2008).

The CC seeks to achieve several goals and a minimum standard of service. Comparatively, this can be evaluated as:

- (1) *Quick response.* The CC always operates with a sense of urgency. As soon as it receives enough food, it assembles the packages and then distributes or ships them to the needy. When food stocks build-up, it organizes joint efforts and task forces to return to normal flow. In the case of material to be recycled, the companies organize sending it so that there is no surplus. This operation has a constant flow, adjusted with partner companies, with permanent labor (provided by the state prisons through socio-educational programs). There may be specific demands that are set in advance.
- (2) *Minimum stock.* Stock is limited to the products being handled. Thus, what the CC receives, it immediately assembles and distributes. If it has to accumulate to meet different demands, it does so in its storage area or hires third-party space.
- (3) *Operational variation.* There are many variations in the operation as the CC operates based on donations. In this sense, managers constantly adapt and balance needs, such as labor, handling equipment, transport, space, etc. When the volume is abnormal and beyond its capabilities, it hires third parties or relies on the help of an LSP.
- (4) *Product handling.* There is low technology and low mechanization applied to operations. Heavy handling operations are carried out with a forklift, but the operational handling of the products (selection, picking and local delivery) is manual, requiring much labor.
- (5) *Quality.* There is a concern with the appearance of the products (torn, damaged, etc.), and especially with the expiration date of the items. A marked focus on having clean,

Lambert's (2004) business process model

Case studied

Customer relationship management

Aims to identify how the relationship with the customer is developed. It acts to keep key customers and customer groups as part of the company's business mission. In this way, it adapts products and services to meet the needs of its main customers and other segments

The client is replaced by entities that need donations and people or families in need in the analyzed case. It turns out that this supposed client acts passively. It is no different from the entities, associations and municipalities associated with the CC's mobilization. The CC maintains a record of the individuals indicated to receive the donation and the entities that request help. The CC controls the volume produced and organizes the delivery, either directly to the needy or dispatching by an LSP to the entities

Customer service management

Customer service is the face of the company for its customers. It should provide objective and efficient customer information services, such as product availability, shipping dates and order status

Starts with the care of the needy or the requesting entity. The needy who use the CC directly are registered and must meet the eligibility requirements; they are included in the food withdrawal list. On the other hand, requesting entities are registered according to regional priorities (the more impoverished, the higher the priority), following an order of service and periodicity. Information on how and when they can meet the requests of these entities is provided as the CC has ready-made food and means of transport available. Once this is done, they inform the entity of the departure and forecast of the vehicles' arrival at the place of delivery

Demand management

Demand management should work on balancing customer requirements with the company's capabilities. Includes forecasting demand synchronized with production, purchasing and distribution

Demand is replaced by the need generated by an event or routine actions to help families and needy communities (predefined)

Order management

Fulfilling the order requires the integration of manufacturing, logistics and marketing. The company must develop partnerships with key members of the chain in order to meet customer requirements

As the CC has the products ready, it defines order fulfillment. It thus keeps in touch with the needy or the coordinators of local entities (churches, associations, etc.)

Production flow management

Handles the manufacture of products and establishes the need to fulfill the orders. The process includes all the activities necessary to manage the flow of the product in manufacturing

In the recycling processes and the assembly of food packages, the CC operates according to the available volume. In other words, if there is enough recycled material or food for handling, the CC sets up the production teams and tables and starts the work

(continued)

Table 2.
Lambert's (2004)
business process model
compared to that of the
case studied

Table 2.

Lambert's (2004) business process model	Case studied
<i>Management of supplier relationships</i> Just as it cares about its customers, the company must promote and find ways to strengthen the relationship with its suppliers. As in the case of customers, the company must build close relationships with them. With each supplier, one must establish the expected level for the service and the product, thus defining the terms of the relationship	This process can be seen in two ways. In this context, suppliers can be either donors or CC managers who buy products and services with money given or received by recycling services. Although the purchase of products and services takes place, it is a process dependent on donors
<i>Product development and marketing</i> Developing products by adequately placing them on the market is a vital component of success. Time is a critical factor in this regard. Supply chain management includes integrating customers and suppliers for this development to reduce the time required to bring the product to market	This activity is not evident as in the business environment. In this case, an analogy can be made with the materials the CC receives for recycling. For example, when it receives materials other than those commonly received, it needs to organize itself and learn what to do and how to operate. The same is the case if it receives a specific type of food product different from what it commonly places in food packages. In this case, it should distribute it to a defined need (e.g. donating drinking water to a disaster region, donating milk to needy families or donating toys for children's birthdays and Christmas)
<i>Returns management</i> This process can help the company gain competitiveness through sustainability and help the company identify opportunities for improvement in production and projects, avoiding waste	Returns occurs when the recycling donor wants to receive the product again to reprocess it. Once the desired material is selected, the collection in the CC is administered by the donor company. There is also an internal routine to reuse all the material used in the Church, restaurants, and concerts

- organized, safe storage and operational areas was observed rather than controls that signaled a strong focus on product quality.
- (6) *Delivery.* The CC tracks whether the LSP has correctly made deliveries. Only telephone contacts and e-mail exchanges, containing data and information on whether those in need were covered, were used.
 - (7) *Outsourcing of activities.* In the operation studied, the CC did not use third-party services (LSP) for storage, internal handling, product separation, and loading operations. The LSP was only used in the delivery and distribution process. Despite the theory pointing out that LSPs are versatile companies capable of adapting and performing different tasks (Vivaldini and Pires, 2013), these virtues were not perceived in the case studied. The researchers did not observe this, but comments were made by the manager that, when necessary, the CC would contract external storage space from an LSP, confirming that these operators can act as a sporadic agent in humanitarian operations (Prockl et al., 2012).
 - (8) *Material recycling.* This process is not managed or conducted by the company producing the waste material. The company only enters the chain to define the qualifiers of what would be reused and direct unused material disposal. The company is still responsible for its stock, but it finds a partner capable of handling the material according to defined standards. In addition to its humanitarian purpose, this action

helps keep its factory clean and contributes to environmental management and sustainable actions.

6. Discussion and final remarks

The management of HSCs is intended to ensure that all activities involving humanitarian actions can be carried out in a way that serves the needy (Tomasini and Wassenhove, 2009). In the case studied, the actions involve different participating companies, with the HO leading the processes and exerting a strong coordination influence to transform aid into donations that reach those in need. This aspect responds to suggestions that HOs should act through collaboration and coordination actions (Nurmala *et al.*, 2017), working together with BOs to create synergies and contribute to meeting demands (Heaslip and Kovacs, 2019; Thompson and Anderson, 2021). Observing this relationship, it is possible to state that SC business processes (Lambert, 2004) can be observed in humanitarian actions and compared with those of a BSC. However, in HSCs, the tasks and nature of agents differ from the business vision. In this sense, the business processes of the studied HSC were characterized and compared, and the details are discussed below (see also Table 2).

Customer relationship and service management in BSCs are instruments capable of identifying customers, creating differentials to win and keep them. It can be understood as an active action to boost sales. Through this management, it is possible to align information and the knowledge obtained to balance the flow in the chain until the final order is fulfilled. Regarding the case of the studied HSC, each needy individual (or entity that represents them) can be understood as a client. Specifically, the CC's action is passive. It knows who the needy are, but it obtains little information and knowledge capable of transforming the information into active actions, such as seeking more significant mobilization of donors to meet greater demand. In this sense, the adoption of practices and concepts related to customer service and supplier management (standards in BSCs) can contribute to the management of HSCs (Polater, 2021).

Therefore, regarding these business processes in HSCs, it is possible to question whether the relationship and customer service should be geared towards the donor or the needy. The case demonstrates that it is necessary to evolve in capturing information from the needy and that more active and targeted actions towards donors or potential donors are also needed, i.e. acting to spread an estimated demand to the donors involved.

Demand and order management works as a mechanism capable of guiding BSCs' movements. This initially involves working with forecasts that give direction to the different functional areas, followed by ratifying the operations and commitments entered into with the client. In the case studied, it can be said that demand forecasting and signed commitment do not exist, confirming the theoretical position (Beamon and Balcik, 2008; Pateman *et al.*, 2013). There are, however, expectations. As observed in this case, the difference between BSCs and HSCs lies in the management behavior; in the business environment, the goals and commitments are more evident in the chain. A HSC (reflecting the actions of the CC studied) lacks these goals, related either to the needy that can be served or the donations obtained. This position corroborates studies that indicate the lack of performance indicators in humanitarian initiatives (Abidi *et al.*, 2020).

Production flow management is related to the flow of products to keep the operation constant and balanced with orders and probable demand. In the CC, this operation is characterized by two cells: one assembling the food packages; and one working with recycled material. The former requires managers to obtain products (by purchase or donation) and the organization's sufficient inputs to assemble the packages. The latter involves organizing the operation to select the recycled material and return (or sell) it to the requesting industry. In

both cases, the CC does not plan or establish commitments to keep operations constant, thus differentiating it from most processes carried out by BO. This behavior can be a point of improvement for the CC, representing a challenge for the team to make processes permanent. This posture, discussed in the literature (Dufor *et al.*, 2018), signals the need to establish standardized processes governed by performance measures, as well as making it clear to the agents involved, including the BO, what value is being generated by the operations (Carland *et al.*, 2018).

The management of returns in the CC, related to donated products, is non-existent. Entities, when they have a surplus, redirect them to the needy and do not return the products. What characterize the return movement are the recyclable products that return to the industry of origin. This business process, specifically in this case, actually differs from a BSC. The exception (although the manager stated that this rarely happens) is when the CC buys products from suppliers, and for some reason, it needs to return them. Notably, returns do occur in humanitarian operations (collecting products, equipment, etc. that were allocated), thus justifying the importance of partnerships with LSPs (Gossler *et al.*, 2020).

The management of relationships with suppliers and product development represent BSCs' strengths. They align initiatives and share common challenges in order to improve SC results for all. In the case studied, the CC relationship does not create or establish reciprocal links. There are routine partners, seen as supportive companies, but without any joint commitment. It is action without reaction. In other words, there is a donation from the company that understands that it is contributing. On the other side, there is passive CC reception. The CC does not create alternatives to maintain a donation and aid routine. In contrast, the CC has a solid initiative to promote concerts and other events to raise donations. Similar initiatives can be replicated in the actions of the OH involving companies and strengthening partnerships (Andonova and Carbonnier, 2014; Nurmala *et al.*, 2017).

Considering the participation of companies in humanitarian actions conducted by the CC, the case narrates an experience in which they help by hiring a recycling service. This action, and other similar actions, can be an alternative for companies to engage with HO. In this sense, it is possible to affirm that companies can hire services that benefit HO in addition to the direct donations of resources or materials. It can be deduced, in this case, that there is a lack of initiatives by HO and the companies themselves to build alternatives for participation. In this sense, the proactivity most present in BSCs could inform HSC managers, especially in times of pandemic, such as the one experienced during the study.

6.1 Contributions, limitations, and future research

This study characterizes the HSC of a CC. It establishes understanding of the business processes of the operations in the donation of food products to the needy during the pandemic period. Understanding operations like these, mainly because a CC conducts them, fosters knowledge for researchers and can motivate organizations and entrepreneurs to adjust and support operations of this type.

Another distinguishing aspect of this study is in clarifying the model adopted by the CC to carry out aid operations; first, through self-generating donations through cultural and religious activities developed at the CC, and second, through the recycling operations that generate resources to purchase food. These actions can be an incentive to organizational managers to strengthen their sustainable and social actions while at the same time guiding other institutions in the same direction.

The study maps the CC's HSC, demonstrating the flow in the upstream-to-downstream direction of the SC, responding to RQ1. It clarifies the relationships and operations developed by the CC. The SC business processes (proposed by Lambert, 2004) are also defined and

compared with the processes analyzed in the case, signaling possible divergences and similarities. Similarly, they are contextualized with the literature on SC management in HOs.

The case presents an example of an initiative that BO can take to participate in humanitarian actions. The characteristics of the HSC presented in this study and the description and discussion of business processes highlight potential ways to foster business engagement, verifying, in this case, the importance of the HO in adopting BSC practices capable of further influencing BO. This approach responds to [RQ2](#). The description and discussion of business processes and the narrative of actions taken by the CC signal possibilities for many initiatives. These initiatives can be applied to other HOs or businesses, and include the following:

- (1) In the engagement of a BO, the case can be an example for learning how to seek joint solutions with an HO, creating social alternatives ([Gossler et al., 2020](#)). This also applies to the relationship created through alternative services, strengthening partnerships capable of fostering a continuous flow of aid operations, improving deficiencies common to HSCs (such as planning), and providing greater understanding of demand, inventory controls, labor resources and the services provided ([Heaslip and Kovacs, 2019](#); [Kebriyai et al., 2021](#)).
- (2) Strengthening collaboration among the participating entities of a HSC, thus creating permanent relationships similar to those in a BSC ([Thompson and Anderson, 2021](#)).
- (3) Furthering the use of technological resources already present in BSCs, thus seeking alternatives to connect the agents involved in the operations ([Scholten et al., 2010](#); [Vivaldini and de Sousa, 2021](#)).
- (4) Seeking means for adopting performance practices and performance measurement ([Abidi et al., 2020](#)) tied both to the desired levels of services for those in need and the perceived returns for the BO.
- (5) As in BSCs, in which organizations work for a common goal, understanding must be improved regarding the importance of business participation in humanitarian aid processes, regardless of HOs' desire (and rules) for independence ([Bealt et al., 2016](#)).

The analogy made with the business processes in the SC serves as a parameter for other similar studies, including perspectives to deepen knowledge both of HSCs and BSCs. The construction and presentation of the HSC characterizing the participating agents and operations (upstream, in-house and downstream) highlights several possibilities and ideas capable of feeding many other studies related to this theme. The description of the case and the processes carried out by a CC also represents a differential for humanitarian actions and can encourage similar studies in other regions, organizations and entities globally.

However, this study also has several limitations. First, typical of a single case study, no considerations or conclusions can be generalized. It is also necessary to consider that the period of the Covid-19 pandemic may have interfered with the operations and information obtained, distorting the reality of the CC in times of normality. Second, many observations and much of the information collected were restricted to conversations and research with interviewees (the managers of the CC, entities and companies). Furthermore, due to the circumstances of Covid-19, face-to-face visits were limited. Consequently, this may have restricted the collection of information and contributions. In addition, the pandemic prevented the authors from observing the donation collection system utilized during concerts, Church actions, events and restaurants operating within the CC.

Finally, only the business process model proposed by [Lambert \(2004\)](#) was adopted. Comparison and discussion from the perspective of other models could contribute further to

such studies. A case such as this is capable of creating many academic doubts and concerns; hence, many kinds of research can be originated from this study, including:

- (1) To what extent do CCs (or entities thus characterized) carry out similar operations? Furthermore, how do these operations differ from those traditionally carried out by traditional humanitarian agents (e.g. Red-Cross-type agents)?
- (2) Comparative cases of countries with similar operations could enrich theory. Analyzing differentiated actions carried out by CCs or similar organizations can expand knowledge and help humanitarian movements.
- (3) Given SCs' restricted view of business processes, exploring in more detail HSCs' and BSCs' views, as well as furthering understanding of the differences between them and the reasons for this, can bring new insights for both types of SC.

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Corresponding author

Mauro Vivaldini can be contacted at: mavivald@gmail.com

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