

The role of information sharing, swift trust and collaboration during the delivery of food to disaster victims

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Abstract

Purpose – This paper aims to explore the role of information sharing, swift trust and collaboration as critical success factors for distributing food parcels in South Africa during the COVID-19 pandemic.

Design/methodology/approach – Generic cross-sectional qualitative research was conducted through semi-structured interviews among South African humanitarian relief organisations (HROs). Interviews focused on exploring the roles of information sharing, swift trust and collaboration between HROs and other stakeholders when distributing food parcels during the COVID-19 pandemic.

Findings – The researchers found that HROs identified the disaster victims and determined their needs through a needs assessment. HROs planned their responses respectively. The planning process involved information sharing with other humanitarian supply chain (HSC) stakeholders, whose responses met expectations. This led to swift trust development and stakeholder commitment in the HSC, fostering collaboration that positively impacted food distribution to beneficiaries. In some cases, information sharing did not result in an expected behaviour. In these cases, the nature of information sharing changed, and relationships with the involved HSC stakeholders were not built on trust.

Practical implications – HROs can improve future disaster preparedness by understanding the role of information sharing, swift trust and collaboration in HSCs and how these factors apply to their relationships with stakeholders. They can build on relationships where trust has been developed, respond better to current disasters and enhance preparedness for future disasters. HROs can also be better prepared to manage relationships with stakeholders where trust is lacking.

Originality/value – Information sharing, swift trust and collaboration are critical success factors in disaster management. Based on current research, there is very little evidence of the correlation between these factors from an HSC perspective, especially during a disaster like the COVID-19 pandemic. This research addresses this research gap from the context of an emerging country and builds on the commitment-trust theory and existing frameworks that incorporate these factors. The research findings can be used to improve information sharing, trust and collaboration between humanitarian stakeholders to prepare for future disasters.

Keywords Collaboration, South Africa, Humanitarian logistics, Humanitarian supply chain, Information sharing, Swift trust, Food distribution, COVID-19 pandemic, Relief aid, Food parcels

Paper type Research paper

1. Introduction

The COVID-19 pandemic impacted most human activities worldwide (Malmir and Zobel, 2021). The World Health Organisation (WHO) declared the Coronavirus disease (COVID-19) a pandemic in March 2020 (World Health Organisation, 2020), which went on to negatively impact the food security of vulnerable and impoverished South African citizens, creating a need for humanitarian relief organisations (HROs) to collaborate in delivering food parcels (Parliamentary Monitoring Group, 2020). Although disasters disrupt the normal functioning of communities, effective humanitarian relief activities can mitigate the negative impacts (Malmir and Zobel, 2021). In South Africa, the COVID-19 pandemic increased poverty rates, threatening citizens' food security to a greater

extent and to overcome this threat, HROs distributed food parcels to those in need (Parliamentary Monitoring Group, 2020). HROs require sufficient information about a specific disaster to successfully distribute relief aid (Perry, 2007), such as delivering food parcels in this study. Humanitarian supply chains (HSCs) are at the core of disaster relief responses and depend heavily on the coordination between HSC stakeholders (Ahmed *et al.*, 2019; Schiffing *et al.*, 2020). Successful HSCs need to understand what the disaster entails and plan and coordinate an appropriate and effective response (Gavidia, 2017; Polater, 2020). Stakeholders in HSCs require effective information

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sharing and collaboration to manage and implement disaster responses efficiently (Dubey *et al.*, 2020a; Polater, 2020).

The role of information sharing is evident, and trust between HROs and other HSC stakeholders is critical to effectively achieve a mutual goal (Ahmed *et al.*, 2019). From an HSC perspective, disaster response includes logistical activities (i.e. humanitarian logistics), and information sharing is crucial because it aids the coordination of logistics activities to transfer supplies to disaster zones efficiently (Perry, 2007; Prasanna and Haavisto, 2018). It logically follows that effective collaboration between HSC stakeholders is essential. In many disaster management cases, due to the unpredictability and uncertainty of disasters, relationships between HSC stakeholders are formed hastily to deal with disasters in a coordinated manner (Ahmed *et al.*, 2019; Schiffling *et al.*, 2020). Seeing that trust is usually developed over time, and HSC stakeholders often need to act quickly during unpredictable disasters, trust in its true sense cannot be developed (Schiffling *et al.*, 2020). Therefore, the trust that is developed between HSC stakeholders during disaster management is often referred to as swift trust, which is the development of trust in temporary settings or organisational structures (Lu *et al.*, 2018; Schiffling *et al.*, 2020). Swift trust is the temporary or initial trust between stakeholders (Ahmed *et al.*, 2019) and, according to Dubey *et al.* (2019), a willingness to rely on other HSC stakeholders to perform their roles in a hastily formed temporary setting.

Information sharing, swift trust and collaboration form an integral part of disaster management's critical success factors, as identified by several authors (Damoah, 2022; Moe and Pathranarakul, 2006; Pettit and Beresford, 2009). Moe and Pathranarakul (2006) argue that critical information should be available to all relevant stakeholders in the HSC and that coordination and collaboration should be executed at different levels in HSCs. These authors also affirm that collaboration between stakeholders is essential. Damoah (2022) states that relevant information must be made available (and shared) with HSC stakeholders and that stakeholder involvement and cooperation should be enhanced with adequate engagement skills (e.g. information sharing) among other HSC role players. Pettit and Beresford (2009) highlight the need to:

- share accurate information;
- develop a level of trust between HSC partners; and
- plan, coordinate and control the flow of materials in the humanitarian logistics processes.

Moreover, Dubey *et al.* (2020b) found apparent links between information sharing, swift trust and collaboration. The authors concluded, among others, that:

- information sharing increases swift trust;
- swift trust positively influences commitment;
- swift trust improves collaboration; and
- commitment has a positive impact on collaboration.

Dubey *et al.* (2020b) also make other conclusions. However, this article focuses and builds on the abovementioned conclusions.

In addition, Ahmed *et al.* (2019) developed a framework to manage resources in humanitarian logistics. The authors concluded that accurate information sharing results in – what they term – behaviour uncertainty reduction (or alternatively, a more certain behaviour), which will enhance swift trust among

HSC stakeholders. The researchers in this article refer to a “more certain behaviour” as an “expected behaviour”. Swift trust, in turn, promotes commitment and collaboration, resulting in better resource allocation.

The concept of expected behaviour needs more clarity. For this article, expected behaviour happens when stakeholders react appropriately to the information that they receive from other stakeholders and according to their role in the HSC as expected from them (Schiffling *et al.*, 2020). In some cases, stakeholders behave inappropriately and not in a manner expected from them. This may be due to inaccurate information sharing, or a misunderstanding of the information provided to them. For example, when deliveries are made to incorrect locations. However, in some cases, these unexpected behaviours are intentional. An example of intentional inappropriate behaviour is when goods are stolen.

Although the concepts of trust and collaboration have been researched broadly in the context of humanitarian logistics (Makepeace *et al.*, 2017), research is limited on the importance of collaboration and information alignment in the context of disaster relief to achieve effective coordination from a multiple-stakeholder perspective (Dubey *et al.*, 2020a; Nawazish *et al.*, 2024). In fact, Gavidia (2017) argues that poor coordination and information sharing highlight the shortcomings of humanitarian logistics. Other researchers agree and state that information sharing and collaboration have been under-researched within the context of HSCs (Ataseven *et al.*, 2017; Larson, 2014). In addition, Lu *et al.* (2018) state that research on swift trust issues has been scant. Research on HSC practices and collaboration and information-sharing strategies in emerging countries like Southern Africa, is limited (De Wet *et al.*, 2025; Kumar *et al.*, 2024; Ngwenya and Naude, 2016). Kumar *et al.* (2024) and Rahman *et al.* (2022) confirm this. These authors conducted bibliometric analyses of the current and emerging trends of HSC studies from 2006 to 2022, which presented many future research avenues, including the research on information-sharing between different humanitarian stakeholders on disasters such as COVID-19 in emerging countries. Therefore, research is necessary to explore the role of information sharing, swift trust and collaboration from a South African perspective. The research in this article focuses on the interrelatedness of these concepts during the COVID-19 pandemic when HSC stakeholders interacted to deliver food parcels to beneficiaries.

This generic qualitative study uses the research alluded to in the sections above and builds on it from the context of an emerging country like South Africa. The research thus explored the role of information sharing, swift trust and collaboration between HROs and other stakeholders while delivering food parcels to beneficiaries in South Africa during the COVID-19 pandemic. The researchers wanted to explore if the findings in this research apply to the findings of Dubey *et al.* (2020b) and Ahmed *et al.* (2019). Within this context, this research study addresses the following primary research question (RQ):

RQ1. What role did information sharing, swift trust and collaboration between stakeholders play when food parcels were distributed to beneficiaries in South Africa during the COVID-19 pandemic?

From the primary research question, the following secondary research questions (SRQs) were derived from the context of delivering food parcels to disaster victims (or beneficiaries) in South Africa during the COVID-19 pandemic:

- SRQ1.* Did planning during disaster victims' needs assessment result in information sharing between relevant HSC stakeholders?
- SRQ2.* Did information sharing result in an expected behaviour from the HSC stakeholders?
- SRQ3.* Did the expected behaviour of the relevant HSC stakeholders result in swift trust between and commitment from the HSC stakeholders?
- SRQ4.* Did swift trust between and commitment from the HSC stakeholders result in collaboration and the successful delivery of the food parcels to the beneficiaries?

The concept of the "successful" delivery of food parcels may seem vague. In this article, "successful" delivery merely implies that the correct beneficiaries received the food parcels intended for them. The contributions of the research are as follows. Firstly, the study contributes to the existing literature on information sharing, swift trust and collaboration within the HSC domain and how these concepts are interrelated, specifically in delivering food parcels during the COVID-19 pandemic in South Africa. As mentioned earlier, the interrelatedness between these concepts has been researched and this article investigates and confirms the research from a different perspective. In addition, the article also contributes to new knowledge in instances where the interrelatedness between these concepts is not as assumed by previous research. This contribution could also give direction to future research on the topics specified. Secondly, the lessons learned from the research findings aids HROs in improving existing HSC practices and developing strategies to prepare better for disasters in the future.

1.1 Theoretical context

The commitment-trust theory (CTT) forms the theoretical foundation for this research. CTT emphasises trust and commitment as factors to achieve coordination and collaboration (Lu *et al.*, 2018; Schiffing *et al.*, 2020). As already evident in this article, trust can be defined as a willingness to rely on another party (Ahmed *et al.*, 2019) and having confidence in a party's reliability and integrity (Lu *et al.*, 2018). Commitment is the decision of a party to maintain a valued relationship with others (Ahmed *et al.*, 2019). CTT can be used to study the relationships between different HSC stakeholders. According to the CTT, organisations will share information as their relationship grows stronger.

The remainder of the article is structured as follows: in Section 2, a literature review will be conducted. In Section 3, the research methodology will be explained. The research findings will be provided in Section 4. The article concludes with a discussion of the findings, their practical implications, limitations and future research directions in Section 5.

2. Literature review

2.1 Humanitarian supply chains

HSCs consist of several stakeholders who respond to beneficiaries' demands by primarily coordinating relief aid and information (Dubey *et al.*, 2014). The needs demanded in HSCs include commodity items (e.g. food, clothing, blankets, medical goods, fuel, money), services (e.g. medical services, sanitation services, information technology) and human resources (Grange *et al.*, 2019; Malmir and Zobel, 2021; Negi and Negi, 2020).

2.2 Being prepared and responding to disasters

HSCs exist because of the need for relief in the occurrence of a disaster and thus aim to address these needs by managing disasters across several phases. De Villiers (2022) refers to these phases as the disaster management cycle consisting of:

- a need to be prepared;
- responding to the disaster;
- recovering from the disaster; and
- mitigation (which includes an increased knowledge and understanding of the process to better prepare for future disasters).

The phases in disaster management are well documented in the literature (Negi, 2022); they are cyclical and impact each other (Banomyong *et al.*, 2019). As mentioned, two of these phases are the preparedness and response phases (De Villiers, 2022; Negi and Negi, 2020). Both phases are driven by information (Perry, 2007). Rayawan *et al.* (2021) argue that humanitarian logistics research seeks to connect these two phases because preparedness (which is considered essential in disaster management) impacts the response to a natural disaster, which ultimately then impacts the extent to which HSCs prepare for the next disaster (Lewin *et al.*, 2018; Rayawan *et al.*, 2021).

During the *preparedness phase*, appropriate action plans and strategies are developed to prepare for future disasters, whilst the *response phase* is typically implemented once a disaster occurs (Banomyong *et al.*, 2019; Sawalha, 2020). This article focuses on the response phase and how HSCs responded in delivering food parcels to beneficiaries during the COVID-19 pandemic. However, besides focusing on the response phase, this research article also provides interesting observations regarding disaster preparedness. The response phase can be characterised by high levels of uncertainty and a need for urgent attention (Negi, 2022). From an HRO perspective, the response phase typically entails:

- a needs assessment (to determine and plan the type of relief aid required);
- getting donations towards the sourcing of relief aid requirements;
- receiving (which may include assembly or packaging) and distributing relief aid;
- monitoring the needs of disaster victims to determine if the needs have changed; and
- control to see how the needs are met by donations (Tomasini and Van Wassenhove, 2009).

The response phase is directly linked to the success and effectiveness of humanitarian logistics (Kovács and Spens, 2009;

Negi, 2022) and depends on collaboration between HSC stakeholders (Banomyong *et al.*, 2019).

2.3 Humanitarian logistics and humanitarian supply chain stakeholders

Humanitarian logistics forms part of HSCs and include the planning, sourcing and delivery of goods and materials to disaster victims (or beneficiaries) based on accurate information sharing across the HSC (Makepeace *et al.*, 2017; Sokat and Altay, 2021). Humanitarian logistics thus include upstream and downstream stakeholders. The upstream stakeholders (e.g. donors and suppliers) provide donations and materials supplies, and the downstream HSC involves the downstream movement of donations and materials supplies to beneficiaries (De Villiers, 2022). A collaborative effort is needed between the different HSC stakeholders to deliver the goods and materials. This requires accurate information sharing both upstream and downstream (De Villiers, 2022; Sokat and Altay, 2021).

From the previous discussion, it is evident that several stakeholders play a crucial role in humanitarian logistics and HSCs. HSC stakeholders include, among others, HROs, donors, beneficiaries, as well as other stakeholders such as local communities, volunteers, the military, police and governments (Banomyong *et al.*, 2019; Larson, 2014). HSC stakeholders need to collaborate but having many stakeholders involved in HSCs can be very challenging to coordinate (Banomyong *et al.*, 2019). HROs often do this coordination task and take on multiple responsibilities in HSCs. Therefore, they must understand the HSCs in which they operate (Banomyong *et al.*, 2019). This research was conducted from the HROs' perspectives. HROs typically include non-profit organisations, non-profit companies, faith-based organisations or public-based organisations, and they provide relief aid to disaster victims (which includes providing food) (Banomyong *et al.*, 2019; Negi, 2022). HROs typically use locally based partners and local community members to provide human resources, as they are often faced with a shortage of workers due to financial limitations, and the benefits of including the local community outweigh the challenges thereof (Schutte, 2024). High employee retention rates and burnout also fuel shortages (Lu *et al.*, 2014).

Donors typically make donations to fund disaster relief activities (Banomyong *et al.*, 2019; Frennesson *et al.*, 2021; Negi, 2022). This article focuses primarily on the donations made by private donors to deliver food parcels to beneficiaries during the COVID-19 pandemic. Beneficiaries are the individuals impacted by disasters, which the HROs serve by way of donations received from donors (Larson, 2014; Wakolbinger and Toyasaki, 2014). Unlike customers in commercial supply chains, beneficiaries cannot voice their needs and do not have any buying power (Heaslip, 2014). Local communities are also key stakeholders in HSCs and are the communities on which HROs focus their humanitarian logistics efforts and can include beneficiaries. Local communities often act as the first responders to a disaster and can be essential to successful humanitarian logistics due to their knowledge of the community being affected by the disaster (Frennesson *et al.*, 2021; Rayawan *et al.*, 2021). Local communities can also assist with last-mile deliveries (i.e. the

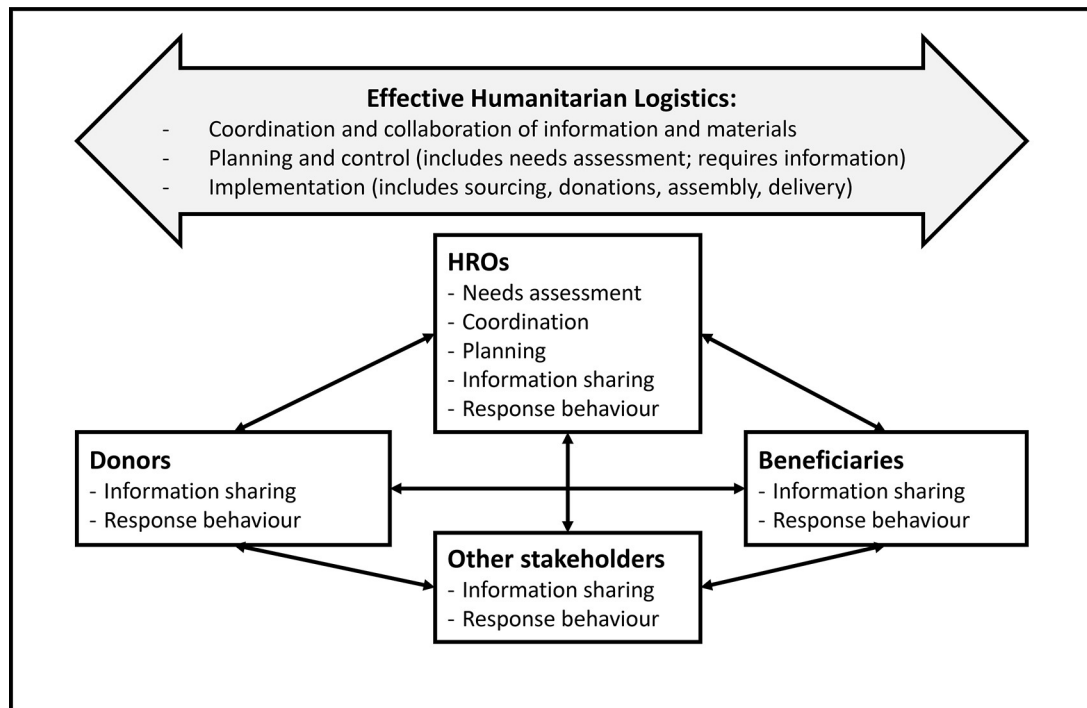
last phase of the delivery process to the final beneficiary) and needs assessments, relieving the burden on an already over-capacitated HRO (Lu *et al.*, 2014; Schutte, 2024). Volunteers work for HROs, governments or associated organisations intending to provide humanitarian assistance and typically provide humanitarian aid at no cost due to a lack of funding (Warburton *et al.*, 2017). The role of the military (or police) in humanitarian logistics is to provide security, which can be a real risk to HROs when providing relief. The military often also provides logistical resources and assists in communication and coordination activities (Bell *et al.*, 2019; Negi, 2022). Governments formulate and deploy humanitarian aid programs and implement disaster mitigation activities (Lu *et al.*, 2014; Negi, 2022). The government's role is not explored in this research, but it may be an avenue for future investigation.

2.4 Information sharing

Sharing information is exchanging information, knowledge and/or data amongst organisations and/or stakeholders in a supply chain network (Kembro and Näslund, 2014). Information sharing accurately aligns the needs of disaster victims with an HSC response, and through information sharing, uncertainty can be reduced, the utilisation of resources can be enhanced and visibility can be increased across the HSC. HSC stakeholders' roles and responsibilities are clarified (Ahmed *et al.*, 2019; Lotfi *et al.*, 2014). Accordingly, information sharing leads to the holistic improvement of supply chain performance and helps in risk mitigation of supply and demand uncertainties (Prasanna and Haavisto, 2018). For successful disaster response efforts, humanitarian logistics needs HSC stakeholders to share information (Gavidia, 2017). The inadequate exchange of information, distrust and insufficient coordination between stakeholders could result in carelessness in responding to a disaster (Prasanna and Haavisto, 2018). The required information is usually obtained by initially evaluating the disaster's effects and assessing the disaster victims' needs, one of the first humanitarian logistics activities conducted during the response phase (Tomasini and Van Wassenhove, 2009). The appropriate response to the disaster will then be planned. Humanitarian logistics and HSC stakeholders within the context of this research are portrayed in Figure 1.

2.5 Swift trust

Trust is an essential prerequisite for exchanging information (Gill and Crane, 2017; Newell *et al.*, 2018). Similarly, transparent communication promotes trust and reduces misinformation (Sokat and Altay, 2021). However, swift trust is often needed due to the uncertain and unpredictable nature of disasters and the response required from the stakeholders. Swift trust is generally developed when HSC stakeholders fulfil their expected roles (Schiffing *et al.*, 2020). If stakeholders' behaviours do not fulfil the expected roles, then their behaviours are unexpected. If the unexpected behaviour is intentional, swift trust does not develop. Schiffing *et al.* (2020) refer to this unpredictable behaviour as "distrust". As swift trust develops, the HSC stakeholders become more committed to their roles in the HSC, which ultimately results in better collaboration (Dubey *et al.*, 2019; Schiffing *et al.*, 2020).

Figure 1 Humanitarian logistics and HSC stakeholders

Source: Compiled from Sokat and Altay (2021) and Tomasini and Van Wassenhove (2009)

2.6 Collaboration

The success of delivering relief aid is dependent on the collaboration amongst HSC stakeholders (Ahmed *et al.*, 2019), who need to share relevant information timeously with (and trust) each other (Grange *et al.*, 2019; Negi and Negi, 2020). Lu *et al.* (2018) state that trust is critical for collaboration and a lack of trust is a significant barrier to coordination. Other researchers like Prasanna and Haavisto (2018), as well as Soosay and Hyland (2015), corroborate this and state that collaboration can only be achieved when organisations develop an adequate degree of trust, make decisions together and share important information. In HSCs, collaboration can occur through shared activities, including assessing disaster victims' needs, exchanging (or sharing) disaster-related information, sourcing and deploying resources, planning capacities and executing last-mile delivery logistics (Dubey *et al.*, 2020a). Short-term collaboration based on swift trust often occurs in HSCs (Gabler *et al.*, 2017). Collaboration would be necessary to reduce the response time of relief operations (i.e. food parcel deliveries) during the COVID-19 pandemic (Karupiah *et al.*, 2021).

2.7 The COVID-19 pandemic and the need for humanitarian aid

COVID-19, an infectious respiratory disease caused by the SARS-CoV-2 virus, was declared a pandemic by the WHO in 2020 (World Health Organisation, 2020). Governments announced lockdowns (i.e. the temporary restriction of individuals' movements), social distancing and the closing of schools and businesses (Sokat and Altay, 2021). In some cases, people were restricted from going to their workplaces, which could have

resulted in them not earning a salary (USAID, 2021). Therefore, the COVID-19 pandemic negatively impacted numerous people's access to food, increasing the need for humanitarian aid (USAID, 2021). Due to limited resources and increased demand for food, governments experienced difficulties in supporting all those impacted and a rapid response was required (Chingono and Mbohwa, 2018). HROs play a significant role in managing and mitigating the impact of disasters (Malmir and Zobel, 2021) and were especially important in mobilising relief aid during the COVID-19 pandemic to alleviate the suffering of disaster victims and this article highlights such examples. Disasters can be either slow- (e.g. droughts) or sudden- (e.g. floods and storms) onset disasters. Humanitarian logistics will be very different for each type. For example, swift trust will have to be developed much quicker during sudden-onset disasters, while planning can be more thorough with slow-onset disasters.

3. Research methodology

In this study, exploratory generic cross-sectional qualitative research was used. Semi-structured interviews were conducted with 12 participants who had relevant experience of the humanitarian logistics activities of the HROs with whom they were involved during the COVID-19 pandemic. All the participants represented different HROs. Exploratory research helps answer research questions that address how an event unfolded, which is qualitative (Ghauri *et al.*, 2020). It is thus an appropriate research method for this study because not much research has been done on the research topic from within the context mentioned above.

3.1 Sampling

Homogeneous sampling was used to select a sample of HROs with common pre-defined characteristics. These characteristics were the following:

- organisations were HROs;
- they delivered food parcels to beneficiaries as relief aid during the COVID-19 pandemic; and
- they were located in South Africa.

Purposive sampling was used to select individual participants. The individual participants worked for the HRO during the COVID-19 pandemic. They had to have adequate experience or knowledge of the information shared amongst stakeholders and the delivery of food parcels during the pandemic. The units of analysis for this research were thus HROs in South Africa that coordinated the deliveries of food parcels during the COVID-19 pandemic. Similarly, the units of observation included the individuals who were employed by the HRO and who were interviewed. Table 1 provides a profile of the participants that were interviewed.

3.2 Data collection

A discussion guide was developed from current research and pilot-tested with a participant who met the inclusion criteria to ensure relevancy. After the pilot test interview, the researchers refined the discussion guide to ensure increased relevance and credibility. The questions included in the discussion guide focused on the following points:

- the roles of the HROs during disasters and specifically when food parcels were delivered to beneficiaries; and
- the nature of information sharing, swift trust and collaboration between HROs and other relevant HSC stakeholders.

The discussion guide was used to guide the interviews with the participants. Virtual interviews (using Google Meet and Microsoft Teams) and in-person interviews (at the HRO's premises) were conducted.

3.3 Data analysis

Thematic analysis was used to analyse the data using the qualitative data analysis software system Atlas.ti 22. The audio

recordings of the interviews were transcribed verbatim by transcription software and analysed independently by the researchers to ensure conformity of the collected data and identified themes. This study followed the thematic analysis principles of Braun and Clarke (2022). Firstly, the researchers familiarised themselves with the data by taking notes and identifying patterns, meanings and emergent themes when reading through the transcribed transcriptions while ensuring these are verbatim. After that, the researchers generated initial codes of the emerging themes and patterns derived from the transcriptions. These themes were also used to search for and generate themes, whereafter they were reviewed critically. After the initial identification and coding of themes, to ensure accuracy, the researchers reviewed each theme, bundled some of the similar themes and renamed some of them to better align with the research questions of this study. Finally, the findings were connected with the study's literature and research questions by writing them up in the findings section of this article.

3.4 Trustworthiness

The credibility of the research was ensured by independently analysing the data and conducting meetings among the researchers to discuss the analyses. Credibility was also assured by selecting participants who met the specific inclusion criteria and had experience and knowledge about the research. The transferability of the research to relate to varying contexts is enhanced by the quantity and duration of interviews (refer to Table 1), the methods by which data was collected, the number of qualified participants involved in the interviews (that also fit the inclusion criteria) and the number of HROs included in the research.

The research design, data collection and analysis steps used in the research were described, which enhanced the study's dependability. Evidently, the research methods are recorded, and in doing so, it allows a party outside of the research study to understand and evaluate the research procedure used. Confirmability is guaranteed because the researchers analysed the data independently, and prompt questions were used to ensure that participants' responses were understood clearly. The study's findings thus accurately reflect the participants' views and experiences and not the biases of the researchers.

The Research Ethics Committee of the Department of Business Management at the University of Pretoria in South Africa provided ethical clearance to conduct the research in August 2022. The participants were asked to sign an informed consent form describing the study's purpose and objective. They were assured of their anonymity. Confidentiality was also maintained in the data collection and analysis process by using pseudonyms and removing the names of the participants and any companies mentioned from the transcripts.

4. Findings

4.1 The roles and experience of the humanitarian relief organisations

All 12 participants indicated that their primary role was to coordinate and ensure the delivery of food parcels to the identified beneficiaries as part of the response phase in providing relief during the COVID-19 pandemic. Their roles

Table 1 Profile of the individual participants

Participant	Position	Length of interview (minutes)
P01	Project coordinator	72:11
P02	Founder	57:50
P03	Project manager	36:20
P04	Disaster relief coordinator	64:44
P05	Project manager	68:15
P06	Project coordinator	66:52
P07	Distribution coordinator	90:55
P08	Founder	75:55
P09	Founder	55:00
P10	HRO volunteer	66:12
P11	Project coordinator	79:19
P12	Project manager	32:21
Average	–	63:50

Source(s): Compiled from research findings

included assessing the needs of disaster victims and planning for the sourcing, assembly and distribution of the food parcels. This highlighted a need to collaborate with other HSC stakeholders. It can be seen from the extracts below:

I coordinated [...] the coordinating of it is all on my shoulder [...] I did the planning [...] of the [food] hampers [...] I basically coordinated everything [...]. (P09, Founder)

So it was, really important for us to be able to collaborate [...] being able to rely on another organisation who was able to assist. (P01, Project coordinator)

4.2 Discussion of the research questions

In this section, the researchers discuss the secondary research questions and how the participants addressed them. The primary research question is discussed in the conclusion section. The researchers also structure the findings according to HROs' interactions, specifically with donors and beneficiaries, and group the other stakeholders into one holistic group. These align with Table 2 below, which outlines the main themes, sub-themes and codes. The main themes represent the specific secondary research questions.

4.2.1 SRQ1: Did planning during disaster victims' needs assessment result in information sharing between relevant HSC stakeholders?

In this section, the researchers identified several sub-themes that would address the respective research question focusing on information sharing between humanitarian stakeholders when planning for disaster victims' needs. The following sub-themes are discussed: the importance of planning and preparation during needs assessment and information-sharing initiatives with donors, beneficiaries and other stakeholders.

4.2.1.1 Sub-theme 1: Importance of planning and preparation during needs assessment. All 12 HROs emphasised the need to plan and prepare well. According to the interviewed participants, the HROs conducted a needs assessment to determine who needed food and their locations. Four HROs only got involved in food parcel deliveries during the COVID-19 pandemic because of the need for it, although it was not their primary focus. Eight of the HROs were involved in delivering food as disaster relief before the COVID-19 pandemic. Seven of the eight HROs had a disaster preparedness plan ready. They mentioned that their disaster management structures were in place and that they could adapt to the disaster requirements. However, the scale or magnitude of the need for food was still much more extensive than anticipated. Nine participants specifically mentioned the massive increased scale of operations necessary for the food parcel deliveries. The quote below illustrates the need for preparedness and the unpredictability of beneficiaries' needs:

It is important to be prepared for a crisis. But how do you prepare for a pandemic that you've never experienced before? (P02, Founder)

The needs assessment conducted by the HROs necessitated planning, which entailed determining which stakeholders would be included in implementing the plan to deliver food parcels to beneficiaries successfully. The interviews revealed that numerous stakeholders were identified and involved while providing the food parcels. The participants mentioned up to 15 different stakeholders. For this article, the researchers have grouped stakeholders based on their roles in the HSC. For this

reason, the police, military and security companies were grouped together. Members from the community (including ward counsellors) were grouped together as the local community. In addition, volunteers are also included as part of the local community because the volunteers who assisted with the delivery of the food parcels were from the local communities. In Table 3, the local community and volunteers are grouped together. However, the results are indicated separately because ten HROs interacted with volunteers while six of these HROs interacted specifically with members from the local community that were not volunteers. After categorising the stakeholder groups that formed part of this study in this manner, seven stakeholder groups were identified with whom the HROs collaborated. These are shown in Table 3, and the HROs who interacted with each of them are also shown.

Interestingly, although these seven stakeholder categories were identified, all the HROs did not communicate with all the stakeholder groups (refer to Table 3). In addition, the stakeholders (other than the HROs) did not share information with each other. For example, donors rarely communicated with beneficiaries or the local community. Another example is where a participant mentioned that suppliers sometimes spoke to the police. It happened when the supplier had to deliver relief aid products to a beneficiary at night and contacted the police for protection. Otherwise, the relevant information was mainly communicated to other stakeholders by the HROs, which emphasises their coordinating role and the need for stakeholders to trust them. It is indicated by P03 in the quotation below:

We never share who the donor is, or who the beneficiary is unless the donor asks to be part of the handing out [of the food parcels] (P03, Project Manager)

4.2.1.2 Sub-theme 2: Information sharing initiatives with donors. Donors are needed to donate funds and other products and services. All 12 HROs shared information with their donors as part of food parcels distribution plans. According to the participants, the information shared between HROs and donors mainly related to the nature of the donations required to distribute food parcels to beneficiaries. Some beneficiary information was shared with the donors while adhering to the Protection of Personal Information Act (POPIA). The following quote illustrates information sharing with donors:

I think the first one is in the planning. I would reach out to them [donors] telling them that I had this number of people that need food and this is what a food parcel costs (P03, Project Manager)

4.2.1.3 Sub-theme 3: Information sharing initiatives with beneficiaries. The identified beneficiaries would be informed when and where the food parcel deliveries would occur. All 12 HROs shared information with their beneficiaries about the delivery process (e.g. scheduling times and dates for delivery and explaining how the food parcels would be delivered). In most cases, the food parcels were delivered by taking them to the beneficiaries in their communities:

It [information sharing] just made it easier [...] they [the beneficiaries] knew what, when and where to expect the delivery (P06, Project Coordinator)

4.2.1.4 Sub-theme 4: Information sharing initiatives with other stakeholders. **4.2.1.4.1 Suppliers.** The food parcel ingredients were sourced from suppliers. Ten of the twelve HROs shared

Table 2 Main themes, sub-themes and codes

Sub-research question	Main theme	Sub-theme	Codes
1 Did planning during disaster victims' needs assessment result in information sharing between relevant HSC stakeholders?	Information sharing between stakeholders when planning for disaster victims' needs assessment	1. Importance of planning and preparation during needs assessment 2. Information sharing initiatives with donors 3. Information sharing initiatives with beneficiaries 4. Information sharing initiatives with other stakeholders	- Suppliers - Local community and volunteers - Police - Media - Other humanitarian relief organisations
2 Did information sharing result in an expected behaviour from the HSC stakeholders?	Expected behaviour following information sharing	1. Expected behaviour (either positive and/or negative) from donors 2. Expected behaviour (either positive and/or negative) from beneficiaries 3. Expected behaviour (either positive and/or negative) from other stakeholders 4. Unexpected behaviour resulting in mistrust and increased planning requirements	- Suppliers - Local community and volunteers - Police - Media - Other humanitarian relief organisations
3 Did the expected behaviour of the relevant HSC stakeholders result in swift trust between and commitment from the relevant stakeholders?	Swift trust and commitment when expected behaviour is demonstrated	1. Expected behaviour leading to high and/or low levels of swift trust between HROs and donors 2. Expected behaviour leading to high and/or low levels of swift trust between HROs and beneficiaries 3. Expected behaviour leading to high and/or low levels of swift trust between HROs and other stakeholders	- Suppliers - Local community and volunteers - Police - Media - Other humanitarian relief organisations
4 Did swift trust between and commitment from the relevant stakeholders result in collaboration and the successful delivery of the food parcels to the beneficiaries?	Swift trust and commitment between stakeholders result in collaboration and delivery success	1. Swift trust and commitment between HROs and donors resulted in collaboration and delivery success 2. Swift trust and commitment between HROs and beneficiaries resulted in collaboration and delivery success 3. Swift trust and commitment between HROs and other stakeholders resulted in collaboration and delivery success	- Suppliers - Local community and volunteers - Police - Media - Other humanitarian relief organisations

Source(s): Compiled from research findings

information with their suppliers. The suppliers were, for example, retailers, wholesalers, private organisations, farmers and spaza shops, to mention a few. The suppliers' primary roles were to provide relief supplies and to deliver the supplies to either HROs or beneficiaries. Three of the suppliers did both. Several of the suppliers were also donors. That said, the information about food parcel distribution was primarily

shared between HROs and suppliers during the planning phase. However, information sharing was also shared during the actual delivery of the food parcels to ensure that delivery did take place.

4.2.1.4.2 Local community and volunteers. Six HROs shared information with the local community and, specifically, community members who were responsible for identifying and

Table 3 Stakeholders in the study and HROs who collaborated with them

Stakeholder	Total	HRO											
		P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	P11	P12
1. Donors	12	X	X	X	X	X	X	X	X	X	X	X	X
2. Beneficiaries	12	X	X	X	X	X	X	X	X	X	X	X	X
3. Suppliers	10		X	X	X	X	X	X	X	X	X		X
4. Local community	6					X	X	X		X	X	X	
(including volunteers)	10		X		X	X	X	X	X	X	X	X	X
5. Police (and security services)	6		X			X		X	X		X	X	
6. The media	5					X		X		X	X	X	
7. Other HROS	11	X	X		X	X	X	X	X	X	X	X	X

Source(s): Compiled from research findings

providing more relevant information about the beneficiaries ($n = 6$). They were also asked to help organise the beneficiaries receiving food parcels and provide them with food parcel delivery information ($n = 5$). As mentioned earlier, community leaders were members of the community in which the food parcels were being delivered and included ward counsellors, and community members. Information sharing in the community is evident from the extract below:

We always do our surveying. Our field workers [community members] go [from] door to door, they go to the community leaders who provide [them] with the list of the beneficiaries and also the time and date [of the delivery]. (P10, HRO volunteer)

Ten HROs shared information with volunteers during their food parcel distribution process. Volunteers were required to primarily assist with the food parcel assembly ($n = 6$) and distribution ($n = 7$). Storage facilities were sometimes needed. In some cases, volunteers were solely responsible for the last-mile delivery of the food parcels. Hence, it is important to share relevant information with volunteers. All ten HROs who interacted with volunteers shared information about the plan for delivering food parcels to beneficiaries. However, information was also shared during the actual delivery of the food parcels ($n = 8$) and after the deliveries were made ($n = 7$) to ensure that delivery occurred to the proper beneficiaries and thus for control purposes. The information sharing with volunteers during the planning, actual response phase and aftermath is illustrated by P02 next:

With the volunteers we had to share information with them at the planning and at the execution [sic], and also afterwards because we would get debriefed (P02, Founder).

4.2.1.4.3 Police. All six HROs who interacted with the police (or security companies) shared information with them. The police was required in some cases to maintain order during the delivery of the food parcels. One HRO mentioned that the police also assisted them with obtaining a necessary permit to deliver food parcels to a specific location. It is worth noting that this was a proactive measure and part of the planning process. What could be derived from the interviews is that the police did not have to intervene while the food parcels were being delivered. The information shared with the police was mainly about the food parcel delivery process and logistics in terms of what would be delivered and where and when the food parcels would be delivered. The need for the police is described below:

We had to share information with the police in the planning stages. (P02, Founder)

4.2.1.4.4 Media. Five HROs shared information with the media about the food parcel delivery process. The media then reported the event through their channels. Sometimes, information about donors (and with the donors' permission) was shared for publicity purposes. Two HROs shared information with the media as part of the planning phase. However, information sharing with the media happened mainly during the response or post-delivery phases when the media reported about the event, as illustrated below:

Sharing information with media helps us a lot in terms of bringing forward donors. It helps [...] donors to identify us as an NGO. (P09, Founder)

4.2.1.4.5 Other humanitarian relief organisations. Other HROs were informed as part of a process to coordinate the delivery of food parcels or to ask for assistance with the delivery of the food parcels. In this research, all 11 HROs who interacted with other HROs shared information with them as part of the planning phase. The information mainly concerned beneficiaries whilst adhering to POPIA ($n = 9$) and food parcel delivery planning ($n = 7$). In some cases, other HROs requested assistance with, for example, food parcel deliveries or the HROs would ask for help:

We were trying to connect people and beneficiaries with different organisations [...] and if we couldn't then we always referred them to other organisations. (P01, Project Coordinator)

It can be concluded that planning by assessing the needs of disaster victims did result in information being shared between the relevant HSC stakeholders. Information was shared mainly between the HROs and the relevant stakeholders. However, not all HROs communicated with the different HSC stakeholders. It emphasises the coordinating role of HROs in HSCs. It must be mentioned that planning sometimes cannot foresee all the uncertainties involved in disaster management. In this research study, the magnitude of beneficiaries needing food was underestimated despite several HROs planning the food parcel delivery process and having preparedness strategies.

For this reason, it is essential to prepare well for disasters and to try to reduce uncertainties. Schutte (2024) proposes several tools to assist with preparing for disasters. Some of these tools include specifying clear roles, ensuring early warning systems by communicating that information, and building strong relationships with relevant stakeholders, including the local

community. From the findings related to *SRQ1*, the following proposition can be formulated:

- P1.* Planning for or in response to disasters results in information sharing between the relevant HSC stakeholders.

4.2.2 *SRQ2: Did information sharing result in an expected behaviour from the HSC stakeholders?*

Once information is shared between HSC stakeholders, a specific response or behaviour is expected. For example, if potential donors are informed about disaster victims and agree to donate, the expected behaviour from donors is to make the donation. In most cases, the information shared with the stakeholders results in an expected behaviour from the recipients of the information. In this section, the researchers identified several sub-themes that would address the respective research question exploring the expected behaviours following information sharing. The following sub-themes are discussed: expected behaviour (either positive and/or negative) from donors, beneficiaries, suppliers, local community and volunteers, police and media and the unexpected behaviour resulting in mistrust and increased planning requirements.

4.2.2.1 Sub-theme 1: Expected behaviour (either positive and/or negative) from donors. Based on the information shared, the donors donated towards the food parcel delivery process in various forms, including financial donations, food items (or ingredients) and food parcels. In this manner, they were portraying an expected behaviour. Other operational and logistics-related donations were also made (e.g. packaging material and fuel). Some donors even lent out their vehicles to the HROs to enable the distribution of the food parcels. In some cases, masks were donated (seeing that the food parcels were being delivered during the COVID-19 pandemic). While 11 of the 12 HROs received financial donations, all HROs indicated that they received donations in various forms from their donors:

They [our donors] funded us, with the food packages, transport, all operations that we needed for the project, actually. (P11, Project Coordinator)

4.2.2.2 Sub-theme 2: Expected behaviour (either positive and/or negative) from beneficiaries. Eleven of the 12 HROs said that, in most cases, the beneficiaries adhered to information provided to them about the food parcel delivery process. Beneficiaries were (in most cases) orderly and honoured appointments. The following quotes illustrate this:

We always send out the messages in the mornings for evening deliveries. So that the people had the entire day. Then they could plan to come into our lines and already be there and it was amazing that people were so orderly. (P08, Founder)

We'll send SMSs to those individuals and say you come at 10, you come at 11, you can make 12. In that way we created order rather than chaos in our centres. (P05, Project Manager)

It can be concluded that information sharing led to expected positive behaviours from the beneficiaries. However, there were several cases where this did not happen. In fact, six of the HROs mentioned this. Some examples were provided for the "unexpected" behaviours from some beneficiaries. For example, once beneficiaries knew that food parcels were being delivered, several others arrived at the location where the deliveries would be made, which resulted in disorder (and a disparity between the planned and actual needs assessment). In another example, an HRO mentioned that they were a victim of crime when they went

to beneficiaries' locations. In some cases, food parcels were stolen when the location of the storage facilities became known to the beneficiaries. Finally, several HROs also mentioned that some beneficiaries were dishonest when claiming food parcels. Below are citations to corroborate some of these examples:

It was actually important that we didn't tell them [the beneficiaries] where the food was [. . .]. (P06, Project Coordinator)

The beneficiaries ended up stealing the food. (P10, HRO volunteer)

4.2.2.3 Sub-theme 3: Expected behaviour (either positive and/or negative) from other stakeholders. *4.2.2.3.1 Suppliers.* Suppliers were available to supply goods to HROs. In most cases, HROs did not experience any problems with suppliers. Some suppliers offered discounts to the HROs. Information sharing between HROs and suppliers resulted in suppliers knowing exactly when and where to deliver the goods or HROs knowing exactly what was available:

We reached out to them [the suppliers] and they were brilliant [. . .] we had so much of stock. Just so much. It just overwhelmed me. (P08, Founder)

One HRO mentioned that in some cases, suppliers did not act as expected and were consequently replaced by the HRO:

The first supplier that we had didn't work as well as we wanted it to. (P03, Project Manager)

4.2.2.3.2 Local community and volunteers. Overall, the local community leaders and ward counsellors behaved as expected after receiving information. In addition, HROs mentioned that the volunteers behaved as expected in many cases, culminating in them fulfilling their role (assembling and distributing food parcels). Some HROs even mentioned that the volunteers were critical to the success of the distribution effort:

The community was brilliant. They just came together in a way I had never, ever experienced. (P08, Founder)

However, there were negative experiences with the local community and volunteers that did not result in the expected behaviour from them. One example was when a local counsellor informed the HRO that all the food parcels for distribution had been stolen. However, the local counsellor was not supposed to have stored the food parcels in the first place. A few HROs also mentioned that some volunteers were not acting as expected, resulting in a lack of trust between HROs and those volunteers. Unfortunately, in this research study, the negative side (i.e. "dark" side) of humanitarian logistics was evident, where some members of the local community and volunteers behaved in ways that only benefitted themselves at the expense of other beneficiaries:

They [the volunteers] were stealing because we always counted the food parcels when we were in the office and when we deliver. The food parcels got short [less]. (P10, HRO volunteer)

4.2.2.3.3 Police. All six HROs who interacted with the police affirmed that the police did what they were supposed to do, namely, provide safety and security and thus conducted the expected behaviour. One HRO mentioned an instance where the police were somewhat hostile and tried to confiscate the food parcels, saying that the necessary permits to distribute the food were not in place. However, generally, the consensus was that police portrayed an expected behaviour:

The police gave us security, both physical security and [a] psychological boost, in the sense that we were all in this together. (P05, Project Manager)

4.2.2.3.4 Media. The media portrayed the expected behaviour by reporting about the specific event (where they were

involved), namely, the delivery of food parcels to beneficiaries. P05 provides one such an example:

The media played a role in making sure that we remained top of mind, as we're doing this work because without them, how would we have managed to market what we're doing. (P05, Project Manager)

However, negative comments about the media were also observed. It was mentioned that the media sometimes follow their own agenda and seek sensational news. For example, an HRO mentioned that the media constantly looked to see where the stakeholders were not adhering to the COVID-19 regulations during food parcel delivery.

4.2.2.3.5 Other humanitarian relief organisations. All the HROs (except for one HRO) who communicated with other HROs ($n = 11$) portrayed an expected behaviour.

4.2.2.4 Sub-theme 4: Unexpected behaviour resulting in mistrust and increased planning requirements. It can be concluded that information sharing mainly resulted in an expected behaviour from the relevant stakeholders. However, there were instances when the stakeholders' behaviours were not as expected and, in several cases, this was intentional. This resulted in distrust (or a lack of trust) and needed additional planning to include control measures, necessitating additional information flows. For example, more planning was required to ensure that dishonest beneficiaries could be identified. This included the development of a central database to ensure that multiple food parcel deliveries were not made to the same beneficiaries. This information was shared with other HROs.

Another example of additional planning was when information was shared with the police to ensure order and protection during the food parcel deliveries. This would not have been necessary if the stakeholders (e.g. local communities, volunteers and beneficiaries) behaved as expected. The following propositions were developed from the findings for SRQ2:

P2a. Information sharing between relevant HSC stakeholders mainly results in an expected behaviour from the stakeholders as they fulfil their role in humanitarian logistics.

P2b. When information is shared with HSC stakeholders and the stakeholders do not behave as expected, additional measures must be taken to plan, control and guide their behaviour.

4.2.3 SRQ3: Did the expected behaviour of the relevant HSC stakeholders result in swift trust between and commitment from the relevant stakeholders?

Swift trust and a commitment from the HSC stakeholders formed when they demonstrated an expected behaviour. However, a trusting relationship was tarnished in those cases where the stakeholders intentionally behaved in an "unexpected" manner. This resulted in additional planning and information being shared in different ways and, in some cases, with new stakeholders. In this section, the researchers identified several sub-themes that would address the respective research question, exploring how the expected behaviour of the relevant humanitarian supply chain stakeholders results in information sharing and commitment. The following sub-themes are discussed: the expected behaviour leading to high

and/or low levels of swift trust between humanitarian relief organisations and donors, beneficiaries and other stakeholders.

4.2.3.1 Sub-theme 1: Expected behaviour leading to high and/or low levels of swift trust between HROs and donors. All 12 participants indicated that there was swift trust between them and their donors. The HROs trusted the donors to donate what they promised. In exchange, the donors trusted the HROs to honour their promises, using those donations to deliver the food parcels to beneficiaries. Both donors and HROs were committed to fulfilling their roles in the delivery process. Therefore, it can be concluded that the expected behaviour between HROs and donors led to the development of swift trust and commitment:

Trust. Trust is earned where transparency is available and is not used as a tool to punish anyone, but if there is transparency, we are able to trust each other. (P05, Project Manager)

My sponsors [donors] were absolutely brilliant and whenever I asked, they came forward. (P09, Founder)

4.2.3.2 Sub-theme 2: Expected behaviour leading to high and/or low levels of swift trust between HROs and beneficiaries. Nine of the 12 participants highlighted trust as an important factor when communicating with their beneficiaries:

You can trust the beneficiaries to be there because they really need it. (P03, Project Manager)

However, three participants mentioned that there was a lack of trust between them and their beneficiaries, and six participants mentioned that they could not trust all the beneficiaries. In the previous section, it was mentioned that beneficiaries were not always honest with HSC stakeholders and in some cases, HROs were victims of crime. This necessitated some additional planning from HROs. The next three quotations provide some evidence:

So, one of the things we became aware of with the beneficiaries which does erode trust is that they weren't honest in terms of who all lived within a family [...] The other thing we learned is that people were taking food parcels and selling them or selling the items. So that really made us realise that we had to be a little bit more organised in terms of record keeping. (P02, Founder)

So, they [the beneficiaries] "milked" the system [...] they would contact multiple churches, multiple non-profits for food so we realised that within two or three weeks that there are families and people getting [food] from multiple organisations. (P04, Disaster Relief Coordinator)

I do background checks, so I do trust and understand they are in need of [food] hampers. There were cases where they [the beneficiaries] abused the system [...]. (P09, Founder)

4.2.3.3 Sub-theme 3: Expected behaviour leading to high and/or low levels of swift trust between HROs and other stakeholders.

4.2.3.3.1 Suppliers. Nine of the HROs also indicated high levels of trust between them and their suppliers and their commitment to fulfilling their roles in the delivery process. One HRO stated that there was a lack of trust between them and their suppliers, and this was because the suppliers' behaviour was not as expected. The following quotations show examples of swift trust between (and a commitment) from suppliers:

[Our trust relationship was] very good. They trusted us [...] we knew they [our suppliers] would deliver. (P06, Project Coordinator)

The second one [supplier] was just super amazing and I think a relationship just built out of that and trust came with that because [...] I think the relationship is more. It's the most important thing here. (P03, Project Manager)

4.2.3.3.2 Local community and volunteers. Four of the six HROs indicated high levels of trust between them and the local communities with whom they interacted. However, some HROs also mentioned a lack of trust between them and the local communities. The following quotations highlight this:

I work with the ward counsellor [...] he gives me a list of names. (P09, Founder)

They [the local community leaders] needed certain information. We could not give away everything. For example, we could not reveal who the donors were. We could not reveal to the counsellors where the storage [facility] is. Trust levels were not allowing such [...] at some stage they would give you false information. (P05, Project Manager)

Five of the ten HROs either already had trusting relationships (or were building trusting relationships) with their volunteers, and nine of the ten HROs said there were high levels of trust between them and their volunteers. One HRO mentioned a lack of trust between them, and the same HRO experienced a lack of trust between them and other HROs, too:

I trusted them [the volunteers] and they trusted me [...] we're still using them as part of our team of the program. (P07, Distribution Coordinator)

My volunteers trust me 101% because what I have is what I give them and I am transparent with them. (P09, Founder)

4.2.3.3.3 Police. Five of the six HROs mentioned that they trusted the police highly, and two mentioned that they had or were building a trusting relationship with them. The citation below shows that the police were trusted to the extent that they could access any required information:

It was full transparency. They [the police] had access to view any data they wanted, but they were not allowed to leave with any data in any format. (P05, Project Manager)

4.2.3.3.4 Media. Four HROs mentioned a lot of trust between them and the media representative with whom they spoke, while one HRO said there was a lack of trust. The quote below highlights the hesitancy of the HRO in trusting the media:

50/50 in the sense that we needed to trust what could go right, and what could go wrong in the same sentence. Media tend to serve their own narrative and their own constituency [...]. (P05, Project Manager)

4.2.3.3.5 Other humanitarian relief organisations. Eight of the eleven HROs indicated high levels of trust between them and the other HROs, and half indicated that they had good relationships (or were building strong relationships) with the other HROs:

Because we had relationships with the churches and nonprofits that we worked with. There was already a base of trust. (P04, Disaster Relief Coordinator)

However, one HRO did mention that it and another HRO with whom it worked had a serious lack of trust and that it would not work with that HRO again.

It can be concluded that the expected behaviour of the relevant HSC stakeholders resulted in swift trust between and commitment from the relevant stakeholders. This happened for the majority of the interactions between the HSC stakeholders. However, there were several examples of how swift trust and commitment were not fostered because of some stakeholders' intentional "unexpected" behaviours that resulted in distrust. Due to swift trust and commitment not being developed, HROs had to adapt some practices to ensure that food parcels would still be delivered successfully to beneficiaries. In some cases, these adaptations resulted in delays. As already

mentioned, more information had to be obtained about some beneficiaries to ensure they were not benefiting from the food parcel deliveries at the expense of other beneficiaries. This included background checks, verifying identities, which in turn delayed food parcel deliveries. Some stakeholders could not be trusted. For example, information about where food parcels were stored could not be shared with some stakeholders.

In some cases, this distrust resulted in sharing information with "new" stakeholders who were selected to replace others. In the cases where trust was tarnished, additional planning was required to determine how information could be shared (and verified). Therefore, the propositions proposed based on the findings of *SRQ3* are:

P3a. An expected behaviour from the relevant HSC stakeholders results in swift trust between and a commitment from them to fulfil their roles in humanitarian logistics.

P3b. If stakeholders intentionally do not behave as expected, the trust between the stakeholders does not develop, which in turn requires an additional effort from HROs in terms of planning and how to share information to ensure successful humanitarian logistics.

4.2.4 *SRQ4: Did swift trust between and commitment from the relevant stakeholders result in collaboration and the successful delivery of the food parcels to the beneficiaries?*

The findings show that swift trust and a stakeholder commitment resulted in collaboration and the successful delivery of the food parcels to the beneficiaries. The following two citations highlight this:

Yes, it [the food parcel delivery process] was successful. (P07, Distribution Coordinator)

On the positive side, we did have people who were honest, who stuck to those SMSs and who were able to stay with us throughout to support the processes. (P05, Project Manager)

In this section, the researchers identified several sub-themes that would address the respective research question, deciding whether swift trust and commitment from humanitarian stakeholders resulted in collaboration and the successful delivery of food parcels. The following sub-themes are discussed: swift trust and commitment between HROs and donors, beneficiaries and other stakeholders resulted in collaboration and delivery success.

4.2.4.1 Sub-theme 1: Swift trust and commitment between HROs and donors resulted in collaboration and delivery success.

The trust between and commitment from the HROs and the donors resulted in collaboration and a positive impact on delivering the food parcels to beneficiaries. The donors donated what they promised, and the HROs successfully used the donations to provide food parcels to beneficiaries. The HROs gave feedback to the donors in the form of testimonies, reports, short videos and so on as part of the process to inform the donors how their donations were used. The coordination between donors and HROs ultimately resulted in the successful distribution of the food parcels to beneficiaries:

But we honoured every donor [...] I would say 100%. It was a question of trust and honour to make sure that donors' food or clothing or furniture or

whatever the case might have been, gets to the right person or family or community. (P04, Disaster Relief Coordinator)

There wasn't anything that could stop the whole process [i.e. delivering food parcels], because there weren't any donors who were bringing food parcels who cancelled. (P01, Project Coordinator)

I want them to have full knowledge of what my organisation is about [...] Most of them [the donors] that I approached continuously support my foundation. (P09, Founder)

They donated their money to be able to do this. We will reach out to them telling them that we have this need. We have so many people in need of the food parcel and then donors donated the money and yeah, we delivered the food parcels. (P03, Project Manager)

I trust them [donors], a lot, because we have managed to reach our goal due to the trust. (P10, HRO volunteer)

4.2.4.2 Sub-theme 2: Swift trust and commitment between HROs and beneficiaries resulted in collaboration and delivery success. Ten of the twelve participants also indicated that information sharing between HROs and beneficiaries positively impacted the distribution of food parcels. The following quote highlights this:

I would say it is healthy because besides food parcels we have had a relationship of many years [with the beneficiaries from local communities] and that way it assisted us to stay true to the plot. (P05, Project Manager)

Three of these participants specifically stated that information sharing between HROs and beneficiaries negatively impacted food parcel deliveries. So, for three HROs, the impact was both positive and negative. The reasons for the negative impact were explained earlier in the discussion for SRQ2 under beneficiaries.

4.2.4.3 Sub-theme 3: Swift trust and commitment between HROs and other stakeholders resulted in collaboration and delivery success.

4.2.4.3.1 Suppliers. Nine of the ten HROs indicated that the trust and commitment between them and their suppliers resulted in collaboration and a coordinated and positive impact on the food distribution process. When, for example, supplies were delivered to a warehouse in a specific location, the suppliers collaborated in sending someone to assist with the dispatch of the goods to the HROs. In some cases, wholesalers and retailers were notified that representatives of an HRO were on their way to purchase goods. Then, they were ready and waiting to help these representatives. However, two HROs also indicated a negative impact and one HRO said it had no impact. The coordination between suppliers and HROs also resulted in the successful distribution of food parcels to beneficiaries:

Our suppliers made sure they constantly had stock [...] everybody had a coordinated 'ear' as well as hands to assist us. (P05, Project Manager)

4.2.4.3.2 Local community and volunteers. Four (of the six HROs who interacted with local communities), mentioned that the swift trust and commitment between them and local communities (including volunteers) resulted in the successful delivery of the food parcels. The two quotes below show this. Two of these HROs also stated that some members of the local community did not contribute to the successful delivery of food parcels. One HRO felt that local communities had no positive impact on the successful delivery of food parcels:

They [the local communities] were the heroes. We were in a position to equip them to serve their communities. So, they were the distribution partners basically. (P04, Disaster Relief Coordinator)

They [the volunteers] identified beneficiaries [...] verified documentation and everything and [...] they were the ones dropping off food [from] house

to house [...] to the actual beneficiaries. So they played a huge role. (P11, Project Coordinator)

4.2.4.3.3 Police. All six HROs who interacted with the police mentioned that information sharing with the police positively impacted the distribution of the food parcels as indicated by the citations below. One HRO mentioned that the police also advised them on safety. However, it was also noted that in one instance, the police wanted to confiscate their food parcels:

So, the police helped us in terms of crowd control on the day that we had like huge crowds [...] it's a positive effect. It made it [the delivery process] much smoother. (P02, Founder)

Extremely positive it enables safety of almost everyone [...] none of the people reported injuries [...] we were able to do our job with safety and security in mind and confidence that the police were there. (P05, Project Manager)

4.2.4.3.4 Media. Four of the five HROs mentioned that information sharing between them and the media positively impacted the food parcel delivery process. In contrast, one of these HROs and another HRO mentioned it had a negative impact. So, one HRO said there was a negative and a positive impact.

4.2.4.3.5 Other humanitarian relief organisations. Information was shared with other HROs to coordinate activities. For example, beneficiary information was shared amongst HROs (while adhering to POPIA) and was sometimes kept in a centralised database. This was to record which beneficiaries had already received food parcels and was done to eliminate the duplication of deliveries to the same beneficiaries. Another reason information was shared between different HROs was to manage the distribution of oversupply. Sometimes, the HROs approached in the research had too many food parcels for the beneficiaries they were targeting. They would then share this information with other HROs to re-distribute food parcels in areas where it was needed. In these cases, HROs would ask for assistance from other HROs:

We had existing relationships in place [with other HROs] [...] to combine the efforts but also to eliminate duplication a little bit [...] we realised we don't have to be everything to everybody. That's why we connected with nonprofits and churches in every area. (P04, Disaster Relief Coordinator)

We [us and other HROs] trust each other and we [are] always sharing with each other [...]. (P09, Founder)

However, one participant mentioned that not all HROs were willing to cooperate:

But what we did learn [...] is a lot of organisations do not like to actually [...] share their beneficiary lists with us when we were trying to do the centralised database [...] I guess [...] they didn't really trust us with their information. (P01, Project Coordinator)

It can be concluded that swift trust and commitment from the relevant stakeholders resulted in collaboration and, ultimately, the successful delivery of the food parcels to the beneficiaries. The findings related to SRQ4 form the following proposition:

P4. Swift trust between and a commitment from the relevant stakeholders results in collaboration and the successful delivery of the food parcels to the beneficiaries.

However, HROs and other HSC stakeholders learned valuable lessons regarding the humanitarian logistics process of delivering food parcels to beneficiaries. These lessons can be used to improve the planning, needs assessment and resulting information sharing of an ongoing or current disaster or to

better prepare for future disasters. During an ongoing (or current) disaster, the cycle of information sharing, swift trust and collaboration is repeated. If swift trust and collaboration have already developed, the process will be improved (and swift trust will develop into trust). From this, the following propositions are also developed:

- P5a.* Collaboration and successful humanitarian logistics can improve the planning, needs assessment and information sharing between stakeholders of an ongoing disaster.
- P5b.* Collaboration and successful humanitarian logistics during the response to a disaster can result in better preparation for future disasters.

5. Discussion

In this research, HROs interacted with several HSC stakeholders to deliver food parcels to beneficiaries. The HROs were the coordinators of this project because the relevant stakeholders did not really communicate with each other independently. The information flows, and materials flows between the stakeholders, as derived in this research, are shown in [Figure 2](#).

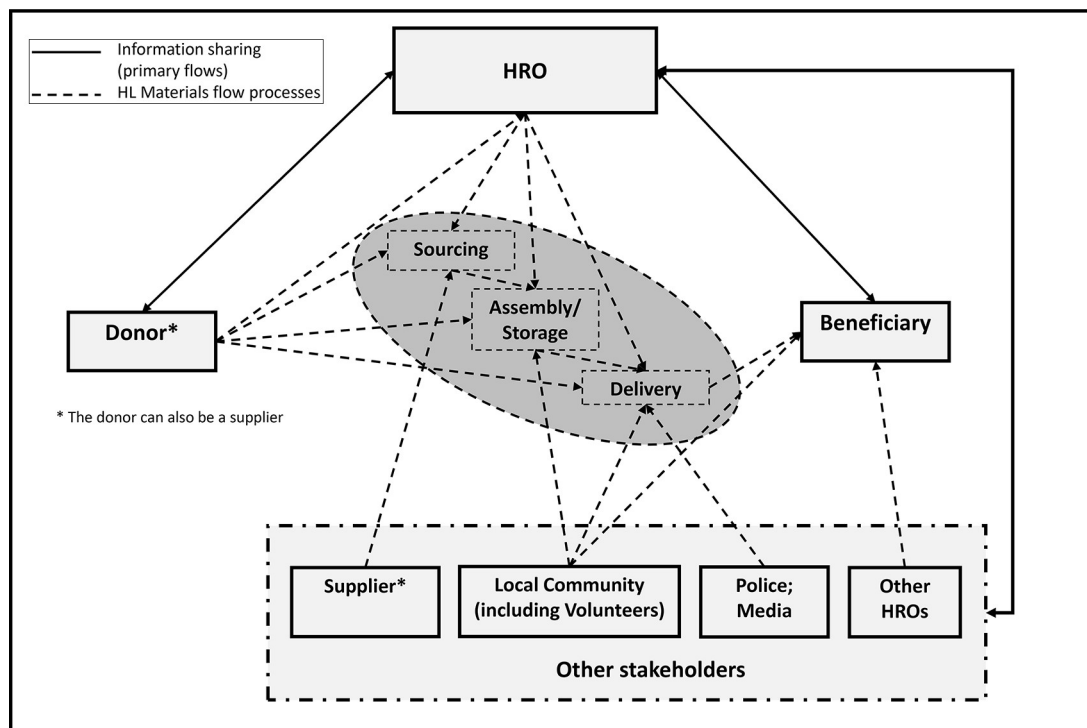
After the disaster, the HROs conducted a needs assessment and planned the provision of relief aid to the disaster victims successfully. The relevant HSC stakeholders were identified. This study determined that relief aid constituted food parcel

delivery to beneficiaries due to food shortages from restrictions imposed during the COVID-19 pandemic. Once the planning was complete, the HROs shared information with the relevant stakeholders, who would respond with a specific behaviour. Behaviours were deemed expected behaviours if the stakeholders behaved in a manner expected from them, thus fulfilling their roles in the humanitarian logistics required to provide relief aid. The stakeholders involved in this research were HROs, donors, beneficiaries, suppliers, local communities (and volunteers), the police (and security companies) and the media. In [Figure 2](#), it can be seen that HROs shared information with all the relevant stakeholders. The stakeholders then mostly responded with specific behaviours, contributing to the humanitarian logistics processes required to deliver the food parcels to the beneficiaries. Some of these humanitarian logistics processes include sourcing, assembly (and/or storage) and delivery.

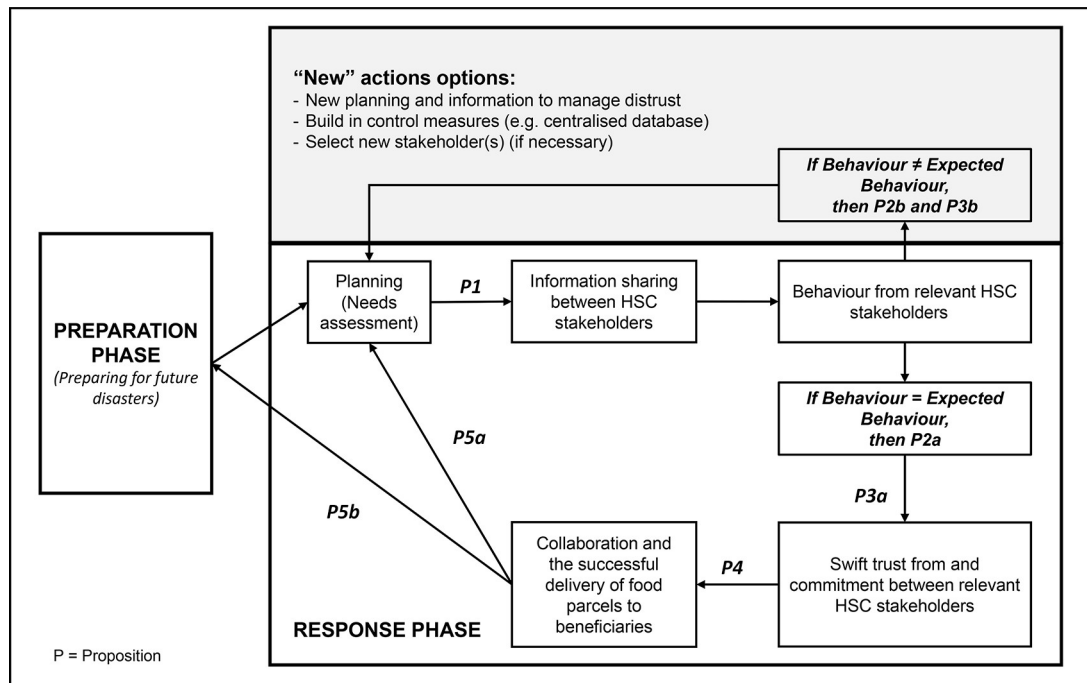
Several propositions were proposed for this study. The propositions were derived from the findings of this research and built on literature conducted on humanitarian logistics (refer to [Figure 2](#)) as well as the foundations of the research conducted by [Dubey et al. \(2020b:562\)](#) and [Ahmed et al. \(2019\)](#). The propositions for this article are made within the context of delivering food parcels to beneficiaries in South Africa during the COVID-19 pandemic (refer to [Figure 3](#)). The references in the paragraph below relate to [Figure 3](#).

As explained, HROs conducted a needs assessment and planned the humanitarian logistics response. Information was shared with the relevant stakeholders (refer to *P1* in [Figure 3](#)), who responded with a behaviour. This behaviour was either an

Figure 2 Interaction between HSC stakeholders in this research



Source: Compiled from [Sokat and Altay \(2021\)](#); [Tomasini and Van Wassenhove \(2009\)](#) and this research study's findings

Figure 3 Propositions derived from this research study

Source: Compiled from the research findings and adapted from Ahmed *et al.* (2019) and Dubey *et al.* (2020b)

expected behaviour (refer to *P2a*) or not (refer to *P2b*). An expected behaviour is when the stakeholder uses the information to respond with a behaviour that would fulfil its role in delivering relief aid to beneficiaries.

If stakeholders' behaviours were not an expected behaviour, swift trust could not develop into a commitment and collaboration between the stakeholders. In this case, the process required more planning (refer to *P2b* and *P3b* and the shaded section at the top of Figure 3). In these cases, the relationships could not develop into trust, and the information sharing process had to include more planning and sharing of new information. HROs had to plan how to overcome this unexpected behaviour (which results in a lack of trust between the HRO and the stakeholders). Planning involved adding more control measures and even including the police to ensure that stakeholders' behaviours were more acceptable. In some cases, new stakeholders had to be selected.

If stakeholders' behaviours were an expected behaviour, swift trust and a commitment between them developed (refer to *P3a*), resulting in collaboration and the successful delivery of the food parcels to beneficiaries (refer to *P4*). In numerous cases, the relationships between HROs and their stakeholders became strong and HROs could trust the stakeholders to respond during disasters in the future. The research also corroborates the CTT which states that information will be shared if the relationships between HROs and HSC stakeholders grow stronger. The lessons learned in successfully delivering the food parcels to beneficiaries can then be used to improve the response to a current disaster (*P5a*) or prepare better for future disasters (*P5b*).

5.1 Practical implications

Several practical applications originate from this research. Firstly, having this knowledge of how information sharing, swift

trust and collaboration can be beneficial to the success of disaster relief and the delivery of relief aid will assist HROs in compiling their disaster preparedness plans to include these aspects. On the one hand, the research corroborates current research in which information sharing between HSC stakeholders results in expected behaviour, swift trust and collaboration. It also corroborates the CTT, which emphasises commitment and trust as important factors to achieve collaboration. On the other hand, the research also shows that information sharing can result in an “unexpected” behaviour, which ultimately tarnishes trust and delays the humanitarian logistics effort. This will be more evident in sudden-onset disasters where HSC stakeholders need to respond quickly to disasters and where swift trust is necessary. Suggestions were made to overcome these challenges by, for example, increasing control measures and collaboration amongst HROs. Secondly, since we can expect disasters in the future, it is beneficial to explore and develop the relationships between HROs and other HSC stakeholders to ensure better preparedness for future disasters. This builds on other research where relationships between HSC stakeholders are emphasised as part of preparedness strategies (Schutte, 2024). Therefore, HROs can take the time to develop these types of relationships by fostering information sharing, swift trust and collaboration as critical success factors to manage disasters and to have strategies in place where trust may be lacking. Alternatively, HROs can plan to manage information sharing with stakeholders where there is distrust between them.

5.2 Limitations of the research and future research

The researchers do acknowledge some limitations of the research. Firstly, this research was only conducted in South Africa and was

regional. The role of information sharing, swift trust and collaboration within a national and global HSC context must be explored further. Secondly, this research is limited to an isolated disaster event, the COVID-19 pandemic. Similar research can also be conducted in terms of natural disasters such as droughts and floods. Floods will require a quicker response, while droughts may require a slower response than what was the focus of this research. Intuitively, planning and the development of swift trust will have to develop quicker with sudden-onset disasters, while more thorough planning can be done with slower-onset disasters. Therefore, more research can be conducted on the role of information sharing, swift trust and collaboration in slow- and fast-onset disasters. Thirdly, the research only refers to the “dark” side of HSCs (e.g. stakeholders behave in a manner that benefits themselves at the expense of other disaster victims). The “dark” side of HSCs needs to be researched more comprehensively to determine more specific ways for HROs to share information with stakeholders where there may be a lack of trust. Therefore, research can be done to determine how disaster preparedness strategies may help to mitigate the challenges and risks where swift trust is required.

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