Performance measurement systems in humanitarian supply chain, Case Study: Fida International

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Increased demand and progressive competition for financial resources forces non-governmental organizations (NGOs) operating in humanitarian and development fields to increase their accountability to donors. Supply chain performance measurement plays a critical role in accountability as it increases transparency and allows improvements in operations. This research answers the question: “What is the role of supply chain performance measurement of humanitarian operations in the NGO context?” Four sub-questions support the main research question and their aims are to investigate the influence of important stakeholders such as donors and aid beneficiaries to the performance measurement systems.

This thesis is a qualitative interpretive case study of the Finnish NGO operating in the humanitarian field. Triangulative data collection were used including nine semi-structured interviews with the case organisation, donors, and local partner, survey to end beneficiaries and additional primary data such as internal reports and guidelines. Data were analysed by qualitative tools such as thematic analysis, categorization, abstraction, dimensionalization. To comprehend the qualitative tools, content analysis were performed to show the representation of the categories in the data.

Results indicate that performance measurement of humanitarian operation is perceived as a critical activity for operations’ success. It increases transparency to donors, thus can increase possibility for future funding. Moreover, NGOs could improve accountability further through improved communication about supply chain performance, such as cost-efficiency. Despite of the advantages, measuring supply chain performance is challenging due to nature of humanitarian field and its complex supply chain structures.

From stakeholder theory perspective, the stakeholders are working towards common goal: providing aid to the beneficiaries. Yet, donors and aid beneficiaries are perceived as key stakeholders. In this supply chain, the relationships between the stakeholders are close and the stakeholders are trusting each other causing reduced need to monitor one another. However, usage of performance measurement in humanitarian settings allows greater transparency and accountability towards stakeholders. These virtues could be only achieved through improved information sharing. Measurement provides input for operational improvement thus better answers to the humanitarian needs.

This research applies in humanitarian context the Cuthbertson and Piotrowicz’s (2011) Content Context Process (CCP) framework for analysis of the performance measurement systems, testing its applicability in new settings. Stakeholder theory is used as analytical lenses to explore relationships between the case organization and its stakeholders. Network theory from the supply chain discipline is applied in similar way. Findings are also relevant for NGOs as the role and impact of performance measurement are revealed.

**Keywords:**
Humanitarian logistics, performance measurement systems, CCP framework, supply chain management, stakeholder theory
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LIST OF ABBREVIATIONS

CCP  Context, Content and Process framework
HO  Humanitarian organizations
MFAF  Ministry for Foreign Affairs of Finland
NGO  Non-governmental organization
NT  Network Theory in supply chain management
PM  Performance measurement
SC  Supply chain
SCM  Supply chain management
SCPM  Supply chain performance measurement
ST  Stakeholder theory
1 INTRODUCTION

Due to the climate change, the number of natural disasters have increased, causing local damage (Guha-Sapir et al., 2014) as well as triggering armed conflicts. In 2016, 1.7 billion people were affected by disasters and 230 thousand people died because of tsunamis and earthquakes (UNISDR, 2016). While demand for humanitarian assistance increases annually, the funding for humanitarian assistance does not follow these needs (Van Wassenhove and Martinez, 2012), resulting in funding shortages. Long-term planning for the resources is challenging, as disasters frequently strike without warning.

The aim for humanitarian assistance is to save lives, to mitigate agony and to ensure human rights during the post-period of natural disasters or other crisis (OECD, 2017). Humanitarian assistance provides aid to people suffering from consequences of natural disasters, war conflicts and silent disasters (Haavisto et al, 2016). Disasters can be natural, such as storms, earthquakes, floods, tsunamis, or caused by humans, for example wars, conflicts, terrorist attacks, or large-scale accidents (Park, 2011).

1.1 Research problem

There is a growing demand for humanitarian aid agencies to establish effective and efficient supply chains to ensure fast and cost-efficient response disasters (Balcik and Beamon, 2008; Jahre and Fabbe-Costes, 2015). In this context efficiency refers to “doing the right things”, whereas effectiveness refers to “doing things right” (Mohan et al., 2013; Van Wassenhove, 2006; Gatignon et al., 2010). Efficient and effective supply chain management is essential, as the supply chain management costs account for 80% of the total operational costs (Scholten et al., 2010). Managing aid units efficiently, can save time and lives in humanitarian operations (Haavisto et al., 2016). Uncertain operational environments and limited budgets require efficient and effective supply chain management for non-governmental organizations (NGOs) operating in the field (Wassenhov and Martinez, 2012). Performance measurements can provide critical information about improvements of the supply chain, thus they are an important function in supply chain management.

Humanitarian operations have several stakeholders such as donors (governments and individuals), aid beneficiaries, NGOs and their employees and volunteers (Shiffling and Piecyk, 2014). Complexity of humanitarian supply chain is increased, as stakeholders’ expectations are rather conflicting in humanitarian operations (Haavisto et al., 2016). While aid beneficiaries (victims of the disasters) need immediate life-saving help, the
donors are interested in knowing whether their contributed funds truly reach the aid beneficiaries (Olorotuba and Gray, 2009). In this situation, performance measurement can be utilized as a tool to communicate contributed help to the donors; however, performance measurement can be time-consuming. Thus, stakeholders and their salience to the organization can be classified by three characteristics: power, legitimacy and urgency (Mitchell et al., 1997). There is a need for more research to identify the most salient stakeholder group within humanitarian supply chain and to understand the influence of different stakeholders onto performance measurement (Shiffling and Piecyk, 2014). Consequently, this research aims to investigate the influence of different stakeholder groups on performance measurement systems.

Despite of the international recognition of aid beneficiaries as the most important stakeholders, NGOs tend to serve donors’ interest more as they are the source for funding (Olorotuba and Gray, 2009). However, this conflicts with the nature of customer service in commercial sector where the “end-users” of the service have the highest influence on the service (Olorotuba and Gray, 2009). This is visible in humanitarian operations in which aid beneficiaries receive standardized packages rather than tailor-made services (Shiffling and Piecyk, 2014). As a result, a true customer approach is still under development in humanitarian context due to a lack of feedback systems and the complex nature of the humanitarian operations (Olorotuba and Gray, 2009). Therefore, new research is required to understand the aid beneficiaries’ role in the supply chain performance measurement. This study aims to provide new insights into this area.

Considering all the arguments mentioned above; the main research question is “What is the role of performance measurement systems within humanitarian supply chain?” Figure 1 presents the sub-questions and their connection to the main research question.

![Figure 1: Research questions](image-url)
The main research question is supported by three sub-questions and it is formulated holistically to get an overall view of supply chain performance measurement within the case organization. The second research question supports the main one in understanding the actual performance measurement process. As the case organization showed interest in knowing the impact of their operations on aid beneficiaries’ lives, the third research question aims to understand what kind of roles aid beneficiaries and other stakeholders have. Furthermore, which stakeholders affect the performance measurement systems of the supply chain. The fourth research question was formulated to gain deeper understanding about the importance of the performance measurement. All the research questions will be answered through application of the Context, Content and Process-framework (Cuthbertson and Piotrowicz, 2011). For analysing the third research question, the stakeholder theory will be used as analytical lenses to gain understanding about stakeholders’ relationships with each other.

Conducting new empirical research in close collaboration with the humanitarian organizations (HO) has advantages for both the scholars and the case organization. Scholars are more connected to the field than before (Charles et al., 2016) and humanitarian professionals in the field benefit from exchanging theoretical knowledge (Starr and Van Wassenhove, 2014).

1.2 Aims of the research

The aims of this research are three-fold. First, it aims to broaden the current academic understanding about the/an NGO’s performance measurement within its supply chain during humanitarian operations from a NGO setting. This is due to the fact that donors are requiring increasingly more accountability and transparency from the NGOs (Scholten et al., 2010). Furthermore, transparent monitoring and performance measurement would increase the accountability of the NGOs (Beamon and Balcik, 2008). Even though supply chain performance measurement is an essential part of supply chain management (Hasan et al., 2016), performance measurement that covers multiple organization has not been researched thoroughly in supply chain management (Maestrini et al., 2017). In this research, the aim is to focus on the supply chain as a whole, including local partners, donors, end beneficiaries, suppliers and the case NGO.

The second aim of the research is to better understand the underlying reasons for measuring humanitarian supply chain performance. While in the commercial sector performance measurement of the supply chain is inevitable for improvement (Hasan et
al., 2016), it might not be applicable to the humanitarian sector, due to its unique characteristics. Thus, this research aims to explore the reasons for measuring humanitarian supply chain performance. Finally, this study aims to provide new insight on the topic, including aid beneficiaries as active part of humanitarian supply chain. The table 1 summarizes the research aims.

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<th>The aim of the research</th>
<th>Implications:</th>
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| Understanding of the humanitarian SCPMS in NGO setting | **Academic:** New empirically based findings of the current SCPMS practices from NGO setting in humanitarian operations.  
**Managerial:** The case organization receives analysis of their performance measurement systems from holistic perspective and possible improvement places. |
| Understanding the reasons for SCPMS within humanitarian supply chain | **Academic:** New empirically based findings about the reasons for performance measurement and its challenges in humanitarian field.  
**Managerial:** Understanding the reasons can help the organization to align interests between its stakeholders as stakeholder theory suggest (Mitchell et al 1997). |
| Stakeholder involvement in performance measurement process | **Academic:** Empirically based findings about importance of different stakeholders (aid beneficiaries and donors) and their influence to the performance measurement systems. Network theory of stakeholder theory tested in a new context allowing the theory to develop.  
**Managerial:** The case organization could improve their accountability to important stakeholders, as they know their influence to the performance measurement systems. |

Table 1 Aims of the research

1.3 Delimitations

This section presents the delimitations of the research that the researcher is intentionally leaving out of the research scope.

**Geographical delimitations:** The case NGO is Finnish NGO which headquarters are located to Helsinki. The case NGO’s humanitarian operations are in the central focus of the research and they are located in Eastern Africa and Iraq. Thus, this research delimits
the other humanitarian operations outside this scope. However, some of the results from the interviews could be relevant to other NGOs, as they express the general findings from the field. Additionally, results from the donor interviews are relevant to other NGOs, as the donor finances humanitarian operations also for other International NGOs.

**Delimitation of natural disasters:** The case NGO’s current humanitarian operations determine the scope of the research and these humanitarian operations are operating to provide assistance in war conflicts. Hence, natural disasters and their supply chain structures are delimited out of the research scope.

**Delimitation of age and gender:** While these factors are commonly applied as indicators when measuring humanitarian operations, this research does not explore causalities between the gender or age of the interviewees and their answers during the interview.

**Delimiting experience as factor:** Despite questions in the interviews, this research does not focus on finding causal relationships between respondent’s experience and their answers. Rather all views are treated to be of subjective matter through interpretive lenses.

### 1.4 Definitions

**Humanitarian operations:** According to the Glossary from Relief Web (2008), humanitarian operations are defined as “Operations conducted to relieve human suffering, especially in circumstances where responsible authorities in the area are unable or unwilling to provide adequate service support to civilian populations (OCHA)”. However, Kovacs and Spens (2007) propose that humanitarian operations and humanitarian logistics have been used as umbrella terms for defining aid, which relieves human suffering from disaster relief to long-term development aid. In this research, the humanitarian operations are defined as relief operations focusing on the definition provided by Relief Web (2008).

**Non-governmental organization (NGO):** Non-governmental organization in this research refers to the definition provided by Zobel et al. (2016) that defines non-profit and non-governmental organizations as organizations which do not seek profit and which have “non-distributional constraints”. “Non-distributional constraints” refers to restrictions for earnings. This means that the non-profit organization is bound to spend
the possible profit from the operation in the continuity of future operations and is restricted to distribute the earnings to individuals. (Zobel et al., 2016)

**Supply chain management:** Supply chain management is defined as a discipline that integrates multi-functional approach to manage activities that not only concern single company, but the whole supply chain (Halldorson, Hsuan and Kotzab, 2015). Supply chain management (SCM) is an essential part of strategy for gaining a competitive advantage that enhances the profitability and efficiency of the organization (Gunasekaran and Kobu, 2007). The main elements in SCM are designing the supply chain structure and the management of the supply chain, including management of relationships with other relevant organizations (Halldorsson et al., 2015).

**Humanitarian supply chain:** Several scholars propose that humanitarian supply chains consist of a wide range of actors such as governments, non-governmental international organization, donors, suppliers, end beneficiaries, local non-profit organizations, military and private actors (Haavisto and Goentzel, 2015; Kovacs and Spens, 2007; Tabaklar et al., 2015; Beamon and Balcik, 2008; Ergun et al., 2014). Humanitarian supply chains share common characteristics such as operating in uncertain environment, sudden massive demand and lack of resources. Beamon and Balcik (2008) suggest a framework for humanitarian supply chain that consists of the following process: assessment, procurement and shipping. The humanitarian supply chain in this research refers to the supply chain in which the case NGO is the focal company.

**Supply chain performance measurement:** Supply chain performance measurement (SCPM) is defined as supportive actions to ensure implementation of supply chain strategy and to ensure achievement of supply chain management objectives (Maestrini et al., 2017). According to Kusrini et al. (2014), good SCPM is specified considering the context, content and process. Finally, Maestrini et al. (2017, p.301) defines SCPMS as “a set of metrics used to quantify the efficiency and effectiveness of supply chain processes and relationships, spanning multiple organizational functions and multiple firms and enabling SC orchestration”.
1.5 Thesis structure

This thesis is structured according to the following figure.

![Thesis structure diagram]

**Figure 2 Thesis structure**

*Firstly*, the introduction presents the research problem and the aim of the research in a nutshell. In the introduction, the definitions of the key concepts will be explained and the delimitations of the thesis will be discussed.

*Secondly*, the relevant literature will be analysed/discussed through the primary theoretical frameworks used in the thesis. In addition, the concept of humanitarian supply chain and its unique characteristics will be discussed from the non-profit organization’s perspective.

*Thirdly*, the research methods used in this research will be presented. Topics such as research design, research approach, data collection, data analysis and quality in qualitative research will be discussed.

*Fourthly*, the case study itself will be examined. In this chapter, the CCP framework will be applied to the humanitarian supply chain of the case non-profit organization through empirical research using qualitative interviews and quantitative survey.

*Fifthly*, in the conclusion section, the findings of the research will be discussed in the light of previous research. Finally, recommendations for further research and managerial and theoretical implications of the research will be explored. Moreover, the quality assessment of the research will be discussed in detail in this chapter and the limitations of the research.
2 THEORETICAL FRAMEWORK

Theory is essential to make sense out of chaos (Tabaklar et al., 2015; Starr and van Wassenhove, 2014). In order to broaden the boundaries of a discipline, the current theories should be tested in a new context as humanitarian logistics challenge current theories in supply chain management in a new operational environment, humanitarian operations (Tabaklar et al., 2015; Starr and van Wassenhove, 2014). In this thesis, the framework modified for analyzing performance measurement systems within supply chain management is applied within a new context, humanitarian operations.

Testing existing theories in the new context allows the new discipline to borrow practices from existing theories. This is applicable, as the humanitarian supply chain discipline borrows theories from existing theories used in supply chain management in the commercial sector (Haavisto et al., 2016; Beamon and Balcik, 2008; Kovacs and Spens, 2007). Due to the differences between NGOs and for-profit organizations (Beamon and Balcik, 2008), the theoretical framework will be drawn from for-profit business practices that enhance efficiency as the NGOs are constantly under competitive and scarce funding (Scholten et al., 2010; Beamon and Balcik, 2008).

This section will provide information about previous research on the subject. Firstly, describing the supply chain management discipline and context, content and process framework. Secondly, reviewing past literature about performance measurement systems and their applications in supply chain management. Thirdly, humanitarian logistics and performance measurement systems in humanitarian logistics is reviewed through past literature.

2.1 Supply chain management

Supply chain management was first recognized as a discipline in 1980s, but the maturity of the discipline started emerging only in the 1990s due to increased amount of new research in the field (Alfalla-Luque and Medina-Lopez, 2009). However, the origins of supply chain management can be traced back to 1960s as supply chain management involves operation management (Halldorsson et al., 2007), systems integration and research about information sharing (Cooper et al., 1997). In the past, academics and professionals have determined supply chain management as an extension of logistics activities or the same as logistics activities, yet ignoring the very essential aspect of supply chain management: managing organizations and operations (Cooper et al., 1997). Now, supply chain management is a crucial activity for companies’ competitiveness
through the management’s capability to integrate its business networks (Lambert et al 1998). The supply chain management discipline has borrowed practices from logistics management, information technology management, process management measurements and accounting auditing methods (Tabaklar et al., 2015).

For the sake of improvements both in financial and operational performance, many companies have formed strategic partnerships with their suppliers to lower organizational barriers and to enhance control over the supply chain (Gunansekaran et al., 2004). Empirical research demonstrates that collaboration between supply chain parties has improved supply chain performance (Romano, 2003; Co and Barro, 2009). Good supply chain management requires effective relationship management of different supply chain parties (Olotoruba and Gray, 2009). In supply chain collaboration, the key issue is to manage relationships between supply chain partners. The prerequisite for successful collaboration is for supply chain partners to share similar interests and to be committed to collaborate (Co and Barro, 2009). In this situation, the stakeholder theory can be applied to identify interests of different stakeholder’s within the supply chain in order to align their interests for better supply chain efficiency. Next, will be discussed stakeholder theory and its applications in supply chain management.

2.1.1 Network theory

This research focus on the stakeholders of the supply chain and their relationships’ influence to the performance measurement process. Thus, the suitable supply chain management theory to be applied is Network theory. Network theory aims on understanding how personal chemistry between supply chain parties can influence trust building and long-term commitment (Halldorsson et al., 2007). In the theory, direct communication is perceived as an enabler for building unique relationships, which could result in customization of the supply chain to meet the unique customer demands (Halldorsson et al., 2007). According to the Network Theory (NT) the networks of the firm are developed through two types of interactions: exchange processes of information and goods, and adaption of these processes such as legal, logistical and technical (Halldorsson et al., 2007). These interactions enable the parties in the network to establish mutual trust (Halldorsson et al., 2007). Commonly NT has been used as a descriptive tool to map capabilities of the supply chain such as its activities, members and resources (Halldorsson et al., 2007).
In this thesis, NT is applied as an analysing lens to understand the interorganizational connections in the humanitarian supply chain.

### 2.1.2 Stakeholder theory in supply chain management

Recent exposures of business scandals, such as violation of employee’s rights in the manufacturing industry or other unethical business practices, have made consumers more aware of such cases. Consequently, consumers require companies to operate socially responsible within their supply chain. The shift towards pleasing all the stakeholders rather than increasing shareholder value is under discussion within academia and practitioners (Sajjad et al., 2015; Park-Poaps and Rees, 2010; Huq et al., 2016, Co and Barro, 2009). Managing and aligning stakeholders’ interests require new understanding and strategic analysis. For these purposes the stakeholder theory was established (Phillips et al., 2003).

Originally, stakeholder theory was established for strategic management discipline to emphasize ethics and morals in decision-making, unlike other theories in strategic management (Friedman and Miles, 2006). In essence, stakeholder theory is concerned with the interest and well-being of the organization’s stakeholders (Phillips et al., 2003). In this context, stakeholder refers to anyone, who can influence a company’s success positively or negatively (Phillips et al., 2003).

For supply chain management, a sustainable supply chain has been the goal because of increased demand by consumers (Padhi et al., 2018). Despite the implicit purpose of gaining visibility and good reputation through marketing a business as sustainable, supply chain managers have become more aware of their suppliers’ business practices. Thus, social responsibility has become an interest for both managers and customers, and this requires consideration of all stakeholders as value-adding assets for the supply chain. In this situation, stakeholder theory can be applied to better understand the dynamics of different stakeholders within the supply chain. While Freeman introduced the stakeholder theory concept in 1984, Donaldson and Preston in 1995 classified stakeholder theory into three categories normative, descriptive and instrumental approaches (Friedman and Miles 2006, p.18-30). Next will be introduced the applied approach to stakeholder theory.

*Descriptive* approach aims to analyze the company’s attributes such as their business model, managers’ view of the nature of the firm, managers’ perceptions about management, company’s management culture and how the board of the firm views
stakeholders who elect them (Friedman and Miles, 2006). This approach is used to describe the specific attributes of the firm.

The aim in this research is to explore the dynamics within the case organization’s supply chain; thus, a descriptive approach is applied. To analyze the dynamics between the stakeholders, Mitchell et al (1997) categorized stakeholders based on their power, legitimacy and urgency. In this context, power is referred to as the stakeholders’ power to influence the firm (Co and Barro, 2009). Legitimacy is argued to reflect the legitimate power of the stakeholders (Mitchell et al., 1997). In other firms, the legitimate stakeholders have the most power rather than external stakeholders (Mitchell et al, 1997). Yet, neglecting the broader stakeholder environment can endanger the reputation of the company that can be affected by broader stakeholder group (Mitchell et al., 1997). Urgency refers to the urgent nature of the issue or collaboration with the stakeholder in question (Co and Barro, 2009).

Rowley (1997) argued that supply chain networks are more complex and organizations do not have time to analyze each of their stakeholders separately as suggested by Mitchell (1997). Therefore, Rowley (1997) developed a theory from social networks concepts to further analyze supply chain networks based on the network structures and the relationships between the members of the networks. In this theory, the focus is on how the stakeholders affect the firm (density of the supply chain) and how the firm responds to the influences (centrality of the firm) (Friedman and Miles, 2006, p.97-98). The theory suggest that when the density of the network increases, referring to improved communication and connectedness between network parties, shared behaviors and expectations increase. Thus, there is increased chance that the network can constrain the focal organization (Friedman and Miles, 2006, p.97-98). In order to avoid the possible constraints, the position of the organization plays a key role (Friedman and Miles, 2006, p.97-98). When the organization possesses higher centrality in the supply chain, it has more power over the parties. The power over the network (centrality) is gained not through individual qualities of the organization but through the number of ties within the network (centrality), closeness as independent access to others and characteristic called “betweenness” as control over others (Rowley 1997). When organizations centrality in the supply chain increases, it can better resist stakeholders’ expectations (Friedman and Miles, 2006, p.97-98).
The network theory of stakeholder theory suggest four types of strategies to organizations to manage its network. Table 2 presents these strategies for the organizations.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Centrality &amp; Density</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compromiser</td>
<td>High, High</td>
<td>To negotiate with stakeholders to pacify their expectations in order to reduce collective action to influence to organization.</td>
</tr>
<tr>
<td>Commander</td>
<td>High, Low</td>
<td>Commanding stakeholders as due to central position and less fear to be constrained by other stakeholder, can manipulate stakeholders through information flows.</td>
</tr>
<tr>
<td>Subordinate</td>
<td>Low, High</td>
<td>Limited access to information flows, as being on the edge of dense network, organization can only agree on stakeholder expectations.</td>
</tr>
<tr>
<td>Solitario</td>
<td>Low, Low</td>
<td>In loosely connected network, the focal organization applies independent strategies to avoid attention from other stakeholders.</td>
</tr>
</tbody>
</table>

Table 2 Classification of the organization according to Rowley (1997)

As any theory, stakeholder theory has its critics. Stakeholder theory has been criticized to neglect the influence of globalization (Jensen and Sandström, 2011). Thus, there is a need to develop stakeholder theory by creating new narratives in a global context (Jensen and Sandström, 2011). In this research, network theory is applied through analytical lenses to see what kind of network the supply chain has: whether the organization is in the center of the network or at the edge and whether the network is dense or not. The aim is to find out what kind of strategies the organizations within the humanitarian supply chain have according to Rowley’s theory and whether the theory is applicable within the humanitarian context. The aim is to find out also what kind of role the organization in question has considering its supply chain and supply chain’s density.

2.2 Performance measurement within supply chain

This chapter explains the concept of performance measurement systems and its importance to supply chain management. As the purpose for a commercial business is to
make profit, Kaplan and Norton (1996) created one of the most cited frameworks for organizational performance measurement. It balances the non-financial metrics of an organization with its financial metrics in order to prove how organizational performance measurement is linked to the competitive advantage of the firm (Balfaqiha et al., 2016). This balanced scorecard framework has been modified later to fit the supply chain throughout the supply chain performance measurement literature (Balfaqiha et al., 2016). Unfortunately, the balanced scorecard and key performance measurement are tools to measure organizational performance within only one organization (Cooper and Ezzamal, 2013). In fact, originally Kaplan and Norton (1996) created the balanced scorecard as a tool for managers for implementing the company’s strategy to operational level (Cooper and Ezzamel, 2013, citing Kaplan and Norton, 1996).

In the supply chain discipline, scholars are calling for frameworks to measure multiple organizations within the supply chain (Maestrini et al., 2017). Several scholars support the view that performance measurement is important for the organization to improve itself (Cooper and Ezzamel, 2013; Maestrini et al., 2017; Beamon, 1999; Kusrini et al., 2014). Besides, measuring performance of the whole supply chain has become increasingly important for globally operating companies to succeed in changing the business environment (Gunasekaran and Kobu, 2007). In fact, measuring performance of the supply chain is considered as part of a company’s competitive strategy (Gunansekaran et al., 2004).

Kusrini et al (2014) propose that the aim in measuring performance of supply chains is to find improvements, to manage supply chains more efficiently and to find opportunities to succeed in the future. Several scholars propose criteria for good SCPMS (Beamon, 1999; Kursini et al., 2014), while others discuss the scope and methods of the SCPMS (Cuthbertson and Piotrowicz, 2008; Cuthbertson and Piotrowicz, 2011; Beamon, 1999; Gunasekaran et al., 2004; Gunasekaran and Kobu, 2007).

2.2.1 Measures in supply chain performance

Beamon (1999) proposes a framework to measure supply chain performance that involves three levels of metrics: output, resources and flexibility. According to Beamon (1999), output measures customer responsiveness, such as delivery time, quality of product/service and the quantity of products produced. The resources level measures resources to achieve high level of efficiency through measuring equipment utilization, inventory levels, energy usage and total costs of operations such as costs for
maintenance, personnel and manufacturing (Beamon 1999). Flexibility is measured through increased customer service, ability to adjust demand variations and as ability to adjust to poor supplier performance and poor delivery performance (Beamon 1999).

Gunasekaran et al (2004) propose that supply chain activities should be measured according to stages of the supply chain: planning, sourcing, make/assemble, deliver to customers. Furthermore, in each stage operational, tactical and strategic metrics should be applied. Strategic metrics refer to measurement metrics that helps top level management in decision-making, such as measures of competitiveness, company’s financial statements and measures to enhance organization’s goals. The second level is the tactical level metrics which consider measuring performance according to targets in order to achieve results stated in the strategic level. Metrics in the tactical level take into account resource allocation and they help middle managers in their decision-making. Operational metrics target employees at the operational level with the objective that if they meet their targets, then the tactical level measurements can be achieved. In the operational level, the metrics are accurate and help the low level managers in their decision making. (Gunansekaran et al., 2004)

Moreover, Beamon (1999) proposes that effective SCPM includes characteristics such as measurement of all relevant aspects, generalizability to compare the measurement to data that is different, measurable data, alignment with organizational strategy. Effective performance measurement systems capture also organizational performance both in financial and non-financial metrics, which can be translated to strategic, tactical and operational levels for decision making and monitoring purposes (Gunansekaran et al., 2004). Finally, Kursini et al. (2014) propose that good criteria for SCPMS are drawn from strategy, measures are understandable, needs of the stakeholders are included, measures focus on value-adding business processes and measures involve stakeholders to promote the success of the company.

2.2.2 Context, content and process (CCP) framework

Cuthbertson and Piotrowicz (2011) have modified Pettigrew’s framework to analyze supply chain management systems. This study aims to modify the framework for supply chain management systems from Cuthbertson and Piotrowicz (2011) to a humanitarian context as the framework builds on the concept, context and process of the supply chain, providing comprehensive analysis of the humanitarian supply chain. CCP framework includes three elements: content, context and process (Pettigrew, 1985). Context refers
to an operational environment in which the measurement occurs both in the organizational context and supply chain context (Cuthbertson and Piotrowicz, 2011). Content refers to the metrics and standards that are used (Pettigrew 1985). Process includes the frameworks and methods how performance measurement is implemented (Cuthbertson and Piotrowicz, 2011). Figure 3 presents the CCP framework adjusted to this research.

Figure 3  
CCP framework

Pettigrew (1985) provides a comprehensive analysis tool for this study, as one of the research questions is to investigate the relationship between humanitarian operations’ standards and performance measurement of the supply chain. Moreover, scholars have applied Pettigrew (1985) also in other fields than in management research, such as managing and evaluating information systems (Stockdale and Standing, 2006). As the humanitarian supply chain discipline borrows theories from other disciplines such as information technology management (Tabaklar et al., 2015), Pettigrew’s framework could be applied to study performance measurement systems within humanitarian field.

Nevertheless, any framework has its limitations. Pettigrew (2012) discusses how research within social sciences is all different. Hence, one cannot suggest one tool that fits all research in the area. Thus, this research aims to modify Pettigrew’s CCP framework in the new context.
2.3 Humanitarian supply chain management

Supplying aid items to the people suffering from disaster share similar characteristics with the commercial sector supplying products to their customer (Haavisto et al., 2016). Humanitarian supply chain discipline borrows practices and theories from the commercial sector to improve supply chain management’s efficiency (Tabaklar et al., 2015; Haavisto et al., 2016; Wassenhove and Martinez, 2012). A growing demand exists within the discipline to build theoretical frameworks for the humanitarian supply chain management (HSCM) (Yu et al., 2015) and the humanitarian supply chain discipline has been criticized for lacking theory-building (Tabaklar et al., 2015). Currently, the academic literature lacks information about the process for defining performance measurement within humanitarian operations, their alignment to the overall standards of the humanitarian operations and standardized systems to measure performance of the supply chain in humanitarian operations (Haavisto and Goentzel, 2015). The next section describes the previous research on supply chain management practices within humanitarian context.

2.3.1 Humanitarian supply chain

As the focus of the research is to study the supply chain performance of the case non-governmental organization in a humanitarian context, the unique characteristics of the humanitarian supply chain should be discussed. Disasters that require humanitarian assistance are divided into man-made and natural disasters (Kovacs and Spens, 2012). Man-made disasters refer to slow-onset disasters that are caused by human action, such as drought (Haavisto et al., 2016). Sudden-onset disasters are considered to be natural disasters, such as tsunamis (Kovacs and Spens, 2012).

D’Haene et al. (2015) discusses the constraints commonly identified with the humanitarian operations, such as the influence of multiple stakeholders, scarcity of resources, and dependency on other actors, limiting the humanitarian operations. In addition, many scholars characterize humanitarian field as uncertain, risky and urgent (Gatignon, van Wassenhove & Charles, 2010; D’Haene et al., 2015; Beamon and Balcik, 2008). Gatignon et al. (2010) propose that especially unstable funding and sudden characteristics of disasters cause the fast changing of workforce, scarce technology and lack of managerial skills. Thus, Oloruntoba and Gray (2006) suggest that humanitarian supply chains have to become dynamic, innovative and agile in order to survive in this operational environment. Moreover, McLachlin et al. (2009) propose that humanitarian
supply chain should be controlled by marketing activities to donors (upstream) rather than end beneficiaries (downstream).

Beamon and Balcik (2008, p.8) states that “The ultimate goal of any supply chain is to deliver the right supplies in the right quantities to the right locations at the right time”. In addition, Beamon and Balcik (2008) discuss that humanitarian non-governmental organizations have to meet two missions within their supply chain strategy: to save as many lives as possible and to manage that with the lowest possible costs in order to keep financial stability. Hence, humanitarian organizations should design their logistics services to provide the highest possible value to the end beneficiaries with the lowest costs in order to deliver the right amount of goods at the right time to the right location (Beamon and Balcik, 2008).

Despite the multiple possibilities for humanitarian supply chain designs, McLachlin et al. (2009) argue that humanitarian supply chains tend to be volatile, vulnerable towards military or political impact, and lack collaboration between agencies causing ineffective supply chains. They suggest that the humanitarian supply chains are influenced by their operational environment, as the destination of the aid can change suddenly and the destroyed infrastructure creates challenges for the operations. In addition, safety and security issues influence the operations. McLachlin et al. (2009) also argue that the humanitarian supply chains are influenced by the interest of the donors, as the donors commonly require the funds to be spent directly in humanitarian aid rather than in developing information systems, preparedness or training. Finally, as the humanitarian context is unique, the supply chain design and its measurement are unique as well.

2.3.2 Non-governmental organizations in humanitarian field

In this section, the characteristics of non-governmental organizations within humanitarian operations will be presented according to previous research. Beamon and Balcik (2008) discuss differences between for-profit organizations and non-profit organization dividing the differences in four categories: revenue sources, goals, stakeholders and performance measurement.

Beamon and Balcik (2008) discuss that the revenue source for non-profit organizations differs from for-profit, as the revenue sources for NGOs are donations from individuals and companies, funding from governments and institutions, and donations of goods and commodities. In addition, McLachlin et al. (2009) argue that the distinguishing characteristics of the non-profit organizations are the funding sources, as unstable and
unpredictable funding creates constraints for the operations. Zobel et al. (2016) argue that a for-profit organization’s measurement systems cannot be applied to a non-profit organization setting, as profit is not the goal for non-profit organizations. However, this approach mainly focuses on organizational performance measurement rather than supply chain performance measurement (Zobel et al., 2016).

The performance measurement systems differ greatly in for-profit organizations and non-profit organization (Beamon and Balcik, 2008). In a non-profit setting, several challenges are involved in performance measurement such as unpredictable results, intangible services that are difficult to measure, abstract missions and broad range of expectations from different stakeholders (Beamon and Balcik, 2008).

Humanitarian non-profit organizations care about the costs of the operations as the continuation of the operations require financial stability (Beamon and Balcik, 2008). However, Haavisto et al. (2016) argue that while the goal in commercial for-profit sector is to make profit, in humanitarian organizations their goal is to save lives and decrease suffering. This thesis does not focus on the benchmarking of other performance measurement indicators for non-profit organization, as the unique characteristics of humanitarian field are not applicable to other fields (Swanson and Smith, 2013).

2.3.3 Aid beneficiaries in humanitarian supply chain

Several scholars argue that the customers of humanitarian operations are the ultimate reason for supply chain and performance measurement (Oloruntuba and Gray, 2009; Schiffling and Piecyk, 2014). Furthermore, Oloruntuba and Gray (2009) discuss that stakeholders of various crises have been dissatisfied with the efficiency and effectiveness of the relief responses. Besides, they argue that the bureaucracy of funding sources and delays of funding in critical moment cause dissatisfaction from customer (end beneficiary) perspective. Moreover, Schiffling and Piecyk (2014) propose that learning and growth of the operations should involve active customer participation as service does not exist without cooperation with customers. They found out in their systematic literature review that customer-orientation in humanitarian logistics research recognizes donors and end beneficiaries as primary customers of humanitarian supply chain. Thus, Oloruntoba and Gray (2009) propose that the customers of humanitarian supply chain have been neglected within the supply chain strategy as the NGOs and governments lack efficient feedback systems.
2.3.4 Performance measurement in humanitarian supply chain

Currently, NGOs are facing pressure to show their program impact and quality of the humanitarian operations (Beamon and Balcik, 2008). The lack of performance indicators have been a problem in humanitarian supply chain management for a long time (Abidi et al., 2014). However, generic performance measurement systems have not been established due to the expensive process and unique setting of non-profit organizations (Abidi et al., 2014). Hence, more research is required to provide detailed information based on real world problems within humanitarian organizations relating to performance measurement (Starr and Wassenhove, 2014).

For this literature review, the researcher used search words such as performance measurement + humanitarian operation, non-profit + humanitarian + performance measurement. As the performance measurement within humanitarian NGOs is a rather new topic for humanitarian logistics research, the researcher broadened the search to non-profit + development, non-profit + strategic and relief agencies from Hanken library search. Leading Journals in Humanitarian Logistics, Production and Operations management research have been used as source. Table 3 presents the relevant literature and their research methodology.

<table>
<thead>
<tr>
<th>Topic:</th>
<th>Research:</th>
<th>Research methodology:</th>
<th>Authors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics performance management in action within a humanitarian organization (modified Balanced scorecard)</td>
<td>Research</td>
<td>Descriptive case study</td>
<td>Schulz and Heigh 2009</td>
</tr>
<tr>
<td>Measuring humanitarian supply chain performance in a multigoal context</td>
<td>Triangulation</td>
<td>Mixed method, 2 years time (interviews and survey)</td>
<td>Haavisto and Goentzel 2015</td>
</tr>
<tr>
<td>A SCOR framework to measure logistics performance of humanitarian organizations</td>
<td>Qualitative case study</td>
<td>Case study, implementation SCOR approach + interviewing and surveying</td>
<td>Lu et al 2016</td>
</tr>
<tr>
<td>Humanitarian supply chains and performance measurement schemes in practice</td>
<td>Qualitative case study research</td>
<td>Case study, implementation, KPI method, interviews</td>
<td>Santarelli et al 2015</td>
</tr>
</tbody>
</table>
Table 3 Past research about performance measurement in humanitarian logistics

<table>
<thead>
<tr>
<th>Study Title</th>
<th>Methodology</th>
<th>Sample Size</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural disaster management planning: A study of logistics managers responding to the tsunami</td>
<td>Qualitative research</td>
<td>Qualitative field study, interviews</td>
<td>Perry 2007</td>
</tr>
<tr>
<td>Reasons for NGOs performance measurement and evaluation</td>
<td>Quantitative research</td>
<td>Quantitative survey for INGOs</td>
<td>Mitchell 2014</td>
</tr>
<tr>
<td>Humanitarian supply chain performance measurement</td>
<td>Qualitative multiple case study</td>
<td>Multiple case study, qualitative</td>
<td>D’Haene et al 2015</td>
</tr>
</tbody>
</table>

Some of the presented articles have been conducted as a literature review, while other papers have taken a qualitative case study approach and some papers have been conducted quantitatively. The past literature has favored Balanced Scorecard framework and Key Performance Indicator framework for studying performance measurement in the humanitarian context (Santarelli et al., 2015; Schulz and Heigh, 2009). In addition, SCOR model were studied to measure supply chain performance in operational level (Lu et al., 2016). Moreover, the past research seems to follow a trend in which complex topics are studied through a qualitative case study while specific problems are studied using a quantitative survey.

It seems that the data availability and accessibility play a key role in the previous studies. Most of the empirical research was conducted using large scale data from multiple organizations. However, some studies included only one case organization (Lu et al., 2015; Santarelli et al., 2015; Schulz and Heigh, 2009). These studies focused specifically on conceptual frameworks such as Balanced Scorecard model and Key Performance Indicators. However, these studies have focused only on the organization not the whole supply chain. Next will be presented the standards and measures used to measure supply chain performance within the humanitarian field.

2.3.5 Performance measures used in the humanitarian field

International NGOs have noticed the need to involve aid beneficiaries more in the performance measurement standards. Thus, they have started to modify the commonly used performance measurement standard in humanitarian operations, the Sphere handbook, to ensure aid beneficiaries’ rights and needs (The Sphere Project, 2016). However, the new standards in the Sphere handbook focus on the rights of the beneficiaries rather than involving them in the development of the standards.
Several scholars propose Balanced Scorecard and Key Performance Indicators as performance measurement metrics that could provide a tool for humanitarians to measure performance (Lu et al., 2016; Santarelli et al., 2015; Schulz and Heigh, 2009). However, these studies are limited to one single organization rather than focusing on the supply chain as a whole including donors. Beamon and Balcik (2008) propose to include end beneficiaries as well as suppliers and local partners into humanitarian supply chain.

In Finland, non-governmental organizations who receive funding from Ministry for Foreign Affairs of Finland, they have to also meet the standards and guidelines established by Ministry for Foreign Affairs of Finland (MFAF) following humanitarian standards in EU and Good Humanitarian Donorship principles (Ministry for Foreign Affairs of Finland, 2015). These guidelines include measurement standards for humanitarian operations, operational sectors (water, nutrition, health, and education) and guidelines for transparent reporting and planning. The Sphere handbook and guidelines from MFAF form a base for performance measurement standards for the case NGO, as the case NGO receives funding from the Finnish government and is part of the universal humanitarian aid agencies.

Several NGOs created Humanitarian Charter and Minimum Standards in Disaster Response in 1997 to serve as a set of minimum standards of quality in all areas of humanitarian assistance (The Sphere Project, 2004). This was established to enhance quality in humanitarian assistance and transparency in humanitarian organizations and measurement systems universally (The Sphere Project, 2004). The Sphere standards intend to provide humanitarian assistance ensuring that the affected people can live life with dignity (The Sphere Project, 2004).

2.3.5.1 Measures in Core Humanitarian Standard

The Sphere standards emphasize that these affected groups must not be seen as “helpless victims”, but rather as self-coping people who have the right to decide their priorities themselves (The Sphere Project 2004, p.10). The Sphere standards create the minimum set of standards for each area of humanitarian assistance. Sphere Standards have six principals including practical guidance in qualitative form for promoting the needs of the affected people and their dignity. These six principals are 1) affected people are in the center, 2) coordination and collaboration, 3) assessment, 4) designing the response, 5) Performance, transparency and learning and 6) performance improvements of the aid workers. (Sphere, 2015) Next, the first and fifth principals are presented in more detail.
as the role of the beneficiaries and performance measurement are the focus areas of this research.

The first principal of the Sphere Standards highlight the role of the beneficiaries in the response to the crisis. The Key indicators assess the link of the operation’s strategy to enhance the community involvement and their capacity, the involvement of beneficiaries in the meetings to plan and organize the response, the number of initiatives enhancing self-sustainability held by the affected people and organization’s capability to address and react upon the feedback. (Sphere, 2015)

For the fifth principal, the key indicators include adjustments of the operations according to the monitored performance. Sources for monitoring and evaluation should representable by the population of the targeted people, regular monitoring of the performance should be conducted considering Sphere standards and results should be shared with key stakeholders. Non-confidential, updated and accurate information about the progress of the operation should be shared to local authorities, beneficiaries and other humanitarian organizations regularly. In addition, objective evaluations of major humanitarian responses should be conducted regularly. (Sphere, 2015)

2.3.6 Process to measure performance in humanitarian operations

This section discusses the methods and tools that the humanitarian NGOs are using according to previous research. To begin with, current trends as increased competition between NGOs for funding calls for transparent communication about the achievements of the operations to the donors (Beamon and Balcik, 2008). Thus, NGOs have started to modify managerial performance measurement tools from for-profit organizations in order to stay in the competition (Beamon and Balcik, 2008). However, each humanitarian supply chain is unique as it is determined by the organization in question (Beamon and Balcik, 2008). As discussed earlier, NGOs that receive funding from the Finnish government have to monitor and evaluate those funded operations for the Ministry for Foreign Affairs of Finland (MFAF). In fact, the MFAF requires active monitoring and efficient reporting after the operation to the MFAF (Ministry for Foreign Affairs of Finland, 2015).

Moreover, as the humanitarian organizations must follow Sphere standards in their operations, the fifth principal in Sphere standards discusses the process for monitoring and evaluating the performance of the operation. The organization must monitor the outcomes of the operation as early as possible and to participate in collaborative learning
initiatives. In addition, the organization should establish systems to monitor data according to the changing needs of the beneficiaries and the changing context, while conducting periodic reflection and learning opportunities for the employees throughout the operation. At last, the organization should conduct final evaluation that reflects the outcome on the planned objectives and minimum standards, and the organization should share these key findings whenever possible. (Sphere, 2015)

According to the donor’s guidelines, the final report should involve a financial report which includes the organization’s general ledger, annual accounts (balance sheets, income statement, profit/loss account), audited financial report from the country of operation and information on possible changes made in the operation and spending (Ministry for Foreign Affairs of Finland, 2015). Nevertheless, the MFAF’s guidelines include only one measurement question about the logistics and distribution strategy of the humanitarian operation. Hence, the performance measurement of the supply chain in humanitarian operations of the case organization require further empirical research.

2.3.7 Challenges to measure performance in humanitarian context

Beamon and Balcik (2008) state that NGOs operating in the humanitarian field face difficulties in measuring performance due to the challenging characteristics of the humanitarian field. Besides, they investigated the common challenges in NGO setting, as performance measurement systems are not defined precisely.

Another challenge is managing different expectations of different stakeholders creates trade-offs in the humanitarian operations (Haavisto et al., 2016). Contradicting expectations challenge the management of performance measurement as the organization has to decide whose expectations are the most important and design measurements according to those expectations. Moreover, the lack of coordination and collaboration creates challenges for managing the performance measurement of the supply chain network (Abidi et al., 2014).

Abidi et al. (2014) present different challenges that the organization has to conquer in order to establish and design performance measurement systems. For instance, the performance measurement standards need to meet the expectations of the donors (Abidi et al., 2014). As the competition for available funds increases, transparency and use of relatable soft indicators of the operations becomes important. Soft indicators in this context refers to indicators which donors can easily relate to and through the soft indicators, donors can understand the performance of humanitarian operations truly
(Abidi et al., 2014). Besides, Abidi et al. (2014) proposes other challenges such as defining purposeful indicators, designing indicators that enhance learning and development, and availability and accessibility to relevant data gathered from unpredictable operational environment. Adding to the barriers for establishing performance measurement systems to humanitarian operations, Starr and Wassenhove (2012) discuss the challenges with the workforce. They argue that humanitarian aid agencies have a fast changing workforce and volunteers are dominantly present in the humanitarian aid agencies. Hence, performance measurement becomes challenging, as the same employees might not be present during the whole project to evaluate the project from the beginning until the end.

2.3.8 CCP framework in humanitarian context

Humanitarian operation has unique operational characteristics (D’Haene et al., 2015), hence the humanitarian supply chain requires thorough understanding before analyzing its performance. According to Cuthbertson and Piotrowicz (2011), the measurement metrics analysis provides only little value without thorough understanding of the context of the operational environment. As the SCPM should be part of an organization’s competitive strategy (Gunansekaran et al., 2004), application of the strategy within the supply chain in humanitarian operations should be investigated.

Humanitarian operations are operating under an uncertain environment which requires dynamic responses and a responsive supply chain (Haavisto et al., 2016). In this dynamic context, factors such as change and time are obvious aspects of the dynamic supply chain, hence these aspects deserves consideration while analyzing performance measurement of such supply chain. Fortunately, Pettigrew’s framework provides tools to analyze organizational change before the change has occurred (Pettigrew, 2012). This fits for humanitarian field as the changes to improve performance measurement systems within humanitarian operations have not occurred yet, and in the future the standardized performance measurement systems for humanitarian operations should drive from the strategy of humanitarian operations. Research from Haavisto and Goentzell (2015) support this view as they argue that performance measurement systems and standards should be aligned with the overall standards of humanitarian operations. The development of those performance measurement systems are still lacking in the field.

Due to CCP framework’s capability to analyze specific context related aspects, such as supply chain stakeholders and their relationship integration, CCP framework is a
suitable tool to analyze the network and its density as it is the aim in the stakeholder network theory. Nevertheless, in the previous research these have not been combined before in the context of humanitarian supply chain. Thus, the aim of this research is to explore how these two analysis tools can be combined and how they can be applied to the humanitarian context. The results therefore, might indicate adjustments for these two. Next, will be presented previous studies about stakeholder theory in humanitarian supply chain.

2.3.9 Stakeholder theory within humanitarian supply chain

The stakeholders in humanitarian non-profit organizations are donors, aid beneficiaries, volunteers and staff members (Beamon and Balcik, 2008). A commonly used definition for a stakeholder is from Freeman (1984, p.46) who defines a stakeholder as “any group or individual who can affect or is affected by the achievement of an organization’s objectives”. Increasingly, scholars in the humanitarian field have raised interest towards applying stakeholder theory to humanitarian operations, as stakeholders are viewed as an important part of the operations (Fontainha et al., 2017). McLachlin et al. 2009) support this stakeholder view by stating that humanitarian organizations have two main important stakeholders, who are considered as customers: donors and beneficiaries. Besides, donors are an important source of revenue (Waters, 2009), making them an important part of the supply chain.

Stakeholder theory has been applied to humanitarian logistics from different viewpoints (Kovacs and Spens, 2009; Swanson and Smith, 2013; Shiffling and Piecyk, 2014). Kovacs and Spens (2009) applied stakeholder theory to identify foundations of challenges phased in humanitarian logistics operations. Swanson and Smith (2013) examined the motivations of private companies to participate into humanitarian operations through the application of stakeholder theory. Shiffling and Piecyk (2014) applied stakeholder theory to develop performance measurement in humanitarian operations. This research will take a descriptive approach to analyze relationships and dynamics within the case organization.

2.4 Summary of theoretical framework

This research applies CCP framework as an analysis tool to analyze the network of the humanitarian supply chain in question. The supply chain network is analyzed through the stakeholder network theory and through the application of network theory from the supply chain discipline. All this is applied in a new dynamic context, the humanitarian
field. In conclusion, the findings are discussed to compare the findings to the theoretical framework.

Figure 4  Summary of theoretical framework
3  RESEARCH METHODS

This chapter presents the chosen research methods. First, the research philosophy in this particular research is discussed. Secondly, the issues of research design will be discussed. Thirdly, the data collection will be presented arguing how the chosen research methods are most suitable for this research and the different data collection types are presented in the third section. Fourthly, the data analysis will be discussed. Fifthly, the quality assessment in qualitative research will be discussed.

3.1 Research philosophy

This chapter discusses the research philosophies and the application of the research philosophy in this particular research. Saunders et al. (2016) define research philosophy as an umbrella term that concerns with generating knowledge and defining characteristics of the generated knowledge. Moreover, they propose that the critical factor affecting the applicable research philosophy is the researcher's viewpoint of the knowledge. In other words, the critical issue is not how well the philosophical viewpoint is informed in the research; rather the critical issue is the reflection and application of the research philosophy within the research process (Saunders et al., 2016).

Patton (2015) argues that the primary purpose of the research is developing knowledge. Thus, research philosophy dictates the value and nature of the generated knowledge. Hence, the research philosophy should be aligned together with practical concerns of the research such as research question and the possible findings (Saunders et al., 2016). Most importantly, Saunders et al. (2016) suggest that the researcher should consider the research questions and viewpoint of the research philosophy as a continua rather than categorizing them into boxes.

Positivism, realism and interpretivism branches of epistemology are commonly applied in the research. Realism is divided into direct realism and critical realism (Saunders et al., 2016). Critical realism intends to explain the reality especially focusing on the constructs under the reality and their impact to the reality (Saunders et al., 2016). Positivist view is mostly used in natural sciences as positivist view reality objectively and they view knowledge generation only acceptable through verifiable results and claims (Saunders et al., 2016). On the other hand, Interpretivism view nature of reality as subjective and socially constructed by humans varying from different conditions (Saunders et al., 2016). In interpretivism philosophy, researcher is part of the research
studying the phenomenon subjectively. Besides, interpretivism is suitable philosophy in studying a phenomenon in-depth involving only small sample sizes (Saunders et al., 2016). Interpretivism fits this research as the research question is formulated in order to explore new phenomenon and studying it in depth. Besides, the sample size in this research will be quite limited, thus this is aligned with the interpretivism characteristics. Studying sensitive topic such as feedback from aid beneficiaries, one should understand the conditions and social constructions of those end beneficiaries in order to interpret them.

Traditionally, logistics research have preferred positivist quantitative research, while interpretative qualitative research is yet emerging research method in logistics research (Spens and Kovacs, 2006). Despite of the dominating quantitative method in logistics research, qualitative research is increasing especially in the area of analyzing change in supply chains and creating change design (Aastrup and Halldorsson, 2008). Besides, some scholars propose that the qualitative research method is suitable in studying complex and new phenomenon as it provides in-depth analysis (Halinen and Tornroos, 2005).

### 3.2 Research design

This chapter argues for chosen research design presenting the research approach, case study research and case selection strategies. Scholars have different definitions and meanings about the research design. Silverman (2011) refer to research design when the researcher must decide appropriate research methodology, while Patton (2015) propose that the research is designed according to its purpose. As research design have different meaning amongst the scholars, the author will explain the definition used in this research. In this research, research design is the plan how the research will be carried out (Saunders et al 2016). This research will follow qualitative research methodology as qualitative method can be exploited in supply chain research to study unknown phenomenon (Halldorsson and Aastrup, 2003).

In fact, Naslund (2002) discusses that the survey data collection is quantitative only when mathematical data analysis techniques will be applied. Supporting this view, Spens and Kovacs (2006) argue that it is precisely the data analysis that defines the research methodology as qualitative or quantitative. Besides, Naslund (2002) argues that mixed method approach might be challenging as the researcher might mix the paradigms.
Despite the quantitative aspects of survey, the data analysis will be the determinant of the research methodology in this research.

In this research, information about performance measurement will be gathered by qualitative interviews supported through quantitative surveys from end beneficiaries, as the researcher might not be able to interview them herself. Besides, exploratory research allows flexibility to the research as it explores new phenomenon, hence new data can lead to new direction and the research problem can change from broad to narrow (Saunders et al., 2016; Eriksson and Kovalainen, 2008).

### 3.2.1 Choice of research approach

Three research approaches are commonly accepted: deductive, inductive and abduction (Saunders et al., 2016). Deductive approach is most used in positivist research philosophy to test hypothesis, while inductive approach is used to generate new theories (Saunders et al., 2016; Spens and Kovacs, 2006). However, abduction as alternative research approach has started to receive more attention from scholars as the reasoning begins through exploring new phenomenon to find causes to the new phenomenon (Spens and Kovacs, 2006).

Besides, abduction suits well for research in supply chain management as it enables the researcher to borrow theories from other disciplines (Spens and Kovacs, 2006). Hence, this research follows abduction as reasoning to enable theory generation from other disciplines. Abductive research is presented in the figure 5.

![Abductive research approach](image)

**Figure 5 Abductive research approach**

This research applies abductive approach as prior theoretical knowledge about performance measurement systems is analysed through the chosen model (CCP framework) in the literature part. Continuing with data collection as real life observations, the findings from collected data are then compared with the theoretical
framework established in the literature review. In the figure 5, the theoretical framework is applied for testing through real life observation from which the results are presented as hypothesis. However, as the time is constrained in this research, the results of this research and the conclusion of the research will only propose the theoretical framework. The proposition could be applied in the further research as the last phase to compare the theoretical framework with the real life observations.

3.2.2 Case study research

As discussed earlier research philosophy guides the researcher through the research process and determines the research methodology (Saunders et al., 2016; Silverman, 2011; Gummesson, 2000). Great debate has been ongoing amongst scholars whether qualitative or quantitative research method generates acceptable knowledge (Silverman, 2011; Eriksson and Kovalainen, 2008; Patton, 2015; Denzin and Lincoln, 2003). While scholars in positivist paradigm argue that qualitative research lack validity and reliability as disability to be generalized to other cases, scholars in qualitative research argue that quantitative positivist research lacks depth and context consideration (Eriksson and Kovalainen, 2008; Denzin and Lincoln, 2003; Naslund, 2002).

Despite of the need for case study forms in logistics research, only few articles have been published by using a case study design (Pedrosa et al., 2012; Naslund, 2002). Besides, Pedrosa et al. (2012) discusses that the quality in those few published case studies tend to be very low. Nevertheless, positivist quantitative method has dominated in logistics research (Spens and Kovacs, 2006; Naslund, 2002). In fact, Naslund (2002) proposes this problematic, as none of the discipline should have a dominant research paradigm.

As the humanitarian supply chain is complex and operating in uncertain environment (Beamon and Balcik, 2008), qualitative case study enables the researcher to study this complex phenomenon in-depth (Saunders et al., 2016). Qualitative and quantitative research differs in their format, characteristics and purpose (Eriksson and Kovalainen, 2008; Denzin and Lincoln, 2003; Saunders et al., 2016). Hence, this study will be conducted through in-depth application of qualitative method. The survey data collection method will be analysed through qualitative content analysis, hence the method itself throughout the study will remain qualitative as Spens and Kovacs (2006) propose. Besides, the research is conducted as embedded case study research as it enables the investigation of multiple cases within one context (Saunders et al., 2016).


### 3.2.3 Case selection for analysis

According to Patton (2015) one of the key elements in research design is the decision about appropriate unit of analysis, as it will direct the results and findings of the study. Moreover, Eisenhardt (1989) proposes that the process to define a certain sample in research is a key decision in the research. Hence, the selection process to determine the analysis unit for the research is defined as sampling (Patton 2015). Sampling strategies differ according to the research method; while quantitative research prefer random sampling strategy to ensure statistically valid data, qualitative research prefer purposeful small sampling (case selection) to study the phenomenon in-depth (Patton 2015).

This research will apply two strategies to select the cases for analysis. While Patton (2015) presents 40 different purposeful case selection strategies in which the researcher is the key decision-maker, Saunders et al. (2016) discusses other case selection strategies in which the respondent is volunteering to the data collection. As the primary research question seeks for holistic picture of the role of SCPM within the case non-profit organization, several sampling strategies are used.

Snowball/chain strategy is the primary case selection strategy as the researcher had firstly only one contact within the case organization. Saunders et al. (2016) defines this sampling strategy as volunteering strategy while Patton (2015) states that this strategy is purposeful sampling in which the researcher seeks for the first contact who will lead to the next contact. This contact will lead the researcher to the next contact who can provide relevant information and that contact to the next one (Patton, 2015; Silverman, 2011; Saunders et al., 2016).

However, Saunders et al. (2016) discusses several possible biases with this sampling strategy such as too homogenous sample as the first contact might lead the researcher to similar contact. Hence, key informant sampling strategy is also applied. Key informant sampling refers to sampling strategy that seeks to identify the people who could provide great insights to the studied issue due to their reputation (Patton 2015). This strategy is used to identify important documents and reports to analyse and this strategy is used to choosing the cases for interview the donor. Table 4 presents the case selection strategies applied in this thesis.
### Case selection strategies

<table>
<thead>
<tr>
<th>Case selection</th>
<th>Data collection</th>
<th>Unit of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Snowball strategy</strong></td>
<td>Semi-structured interviews, survey</td>
<td>Employees of Fida and employees of local partner, beneficiaries</td>
</tr>
<tr>
<td><strong>Key informant sampling</strong></td>
<td>Written documents</td>
<td>Final reports, guidelines</td>
</tr>
<tr>
<td><strong>Key informant sampling</strong></td>
<td>Semi-structured interviews</td>
<td>Donor interviewees</td>
</tr>
</tbody>
</table>

Table 4 Case selection strategies

### 3.3 Data collection

Systematic data collection is the essence in empirical research through which the research will be evaluated (Saunders et al., 2016). Hence, the researcher have the critical choice to focus on either to the depth or the broadness of the data (Patton 2015). As this research applies qualitative case study research strategy from through interpretivism lenses, hence the logical choice for the researcher is to focus on the depth of the data collection. According to Spens and Kovacs (2006), the commonly used data collection in quantitative method, survey, does not necessarily imply quantitative method. In their article, they examined articles published in logistics journals and their findings propose that survey with open-ended questions could be used to explore a phenomenon. Besides, they emphasize that data analysis plays a key role in determining the research method as open-ended surveys could provide new information regardless of the prior set questionnaire.

Furthermore, case study research is defined to include multiple data sources as multiple data sources provides comprehensive data and these multiple sources for data are primary and secondary data (Farquhar, 2012). Primary data is considered to cover all the data that the researcher has collected, while secondary data refers to data that is collected by someone else than the researcher in question (Eriksson and Kovalainen, 2008). However, written documents can be also part of primary data collection and these written documents are divided to published and unpublished documents (Gillham, 2000). The table 5 presents the data collection methods used in this research. As the table presents, the primary data is collected through multiple data sources such as semi-structured interviews, written documents and survey. Next parts will explain each data collection method in detail.
<table>
<thead>
<tr>
<th>Research question</th>
<th>Method</th>
<th>Data collection (Primary data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1: What is the role of supply chain performance measurement?</td>
<td>Qualitative</td>
<td>-Semi-structured interviews with employees of Fida and local partner</td>
</tr>
<tr>
<td>R2: What and how the performance of the supply chain is measured?</td>
<td>Qualitative</td>
<td>-Written documents: reports from the operations, donor's publicly available guidelines</td>
</tr>
<tr>
<td>R3: Who are the stakeholders affecting performance measurement systems of the supply chain?</td>
<td>Qualitative</td>
<td>-Semi-structured interviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Survey to beneficiaries</td>
</tr>
<tr>
<td>R4: Why performance measurement is conducted?</td>
<td>Qualitative</td>
<td>-All semi-structured interviews</td>
</tr>
</tbody>
</table>

Table 5 Data collection

3.3.1 Semi-structured interviews

Interviews as data collection method in qualitative research provides information about the participant's emotions and thoughts that are not revealed through observing the participant (Patton, 2015). Besides, interviews are the key data collection method when researcher aims to understand the social surroundings of the interviewee as the mutual discussion in the interview allows gaining understanding about the social constructs of the interviewee (Dundon and Ryan, 2010).

The research philosophy guides the researcher in the decision of the type of the interview (Silverman, 2011). As research will be evaluated through the analysis (Saunders et al., 2016) and the analysis of the collected data determines the research methodology (Spens and Kovacs, 2006), thus, the decision to choose the most suitable interview type to gain suitable data for analysis is critical. Silverman (2011) discusses that research philosophy also directs the interview type as positivist paradigm prefer standardized interviews while emotionalism/interpretivism prefer open-ended interview types. However, limitations in such open-ended discussions are that the researcher might not gain the information relevant to the study (Silverman, 2011). Hence, this research applies semi-structured interviews with open-ended discussion to allow emerging new information to direct the research as Saunders et al. (2016) discusses the advantages in semi-structured interviews.
In total, eight semi-structured interviews were conducted in the data collection and the total duration time of all interviews is 7 hours and 48 minutes. The table 6 presents the durations of each interview, the interview type (phone/face-to-face), the language and the dates.

<table>
<thead>
<tr>
<th>N.</th>
<th>Interviewee</th>
<th>Duration</th>
<th>Type</th>
<th>Language</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fida, coordinator (F1)</td>
<td>58min</td>
<td>Phone</td>
<td>English</td>
<td>15.11.2017</td>
</tr>
<tr>
<td>2</td>
<td>Fida, specialist (F2)</td>
<td>30min</td>
<td>Phone</td>
<td>English</td>
<td>21.11.2017</td>
</tr>
<tr>
<td>3</td>
<td>Fida, coordinator (F3)</td>
<td>45min</td>
<td>Phone</td>
<td>English</td>
<td>24.11.2017</td>
</tr>
<tr>
<td>4</td>
<td>Fida, manager of humanitarian aid (F4)</td>
<td>44min</td>
<td>Face-to-face</td>
<td>Finnish</td>
<td>30.11.2017</td>
</tr>
<tr>
<td>5</td>
<td>Fida, management (F5)</td>
<td>49 min</td>
<td>Face-to-face</td>
<td>Finnish</td>
<td>1.2.2018</td>
</tr>
<tr>
<td>6</td>
<td>Partner, coordinator (P1)</td>
<td>1h 40min</td>
<td>Phone</td>
<td>English</td>
<td>13.12.2017</td>
</tr>
<tr>
<td>7</td>
<td>Governmental donor (D1)</td>
<td>1h 23min</td>
<td>Face-to-face</td>
<td>Finnish</td>
<td>30.11.2017</td>
</tr>
<tr>
<td>8</td>
<td>Governmental donor (D2)</td>
<td>50min</td>
<td>Face-to-face</td>
<td>Finnish</td>
<td>15.12.2017</td>
</tr>
<tr>
<td>9</td>
<td>Governmental donor (D3)</td>
<td>58min</td>
<td>Face-to-face</td>
<td>Finnish</td>
<td>18.12.2017</td>
</tr>
<tr>
<td>Total</td>
<td>9 interviews</td>
<td>7 hours 48 minutes</td>
<td>5 face-to-face 4 Phone</td>
<td>5 Finnish 4 English</td>
<td>2 months 15 days</td>
</tr>
</tbody>
</table>

**Table 6 Interviewees**

The interviews were conducted mostly in English, as the professional language of the company is English. However, one interview with the case organization and all of the three interviews with the donor representatives were in Finnish as the interviewees felt more comfortable talking in Finnish. Most of the interviewees are located abroad of Finland, thus software such as skype and whatsapp were exploited to reach the interviewees. Half of the interviews were face-to-face interviews and half of them were interviews through phone. In order to enhance transparency as quality assessment of the research, interviews are recorded and transcribed and saved.

Different questions were addressed to the people who worked in different positions in the humanitarian operations. This was due to their tasks, as some of the employees are not directly involved with the logistics of humanitarian operations, but they are often in contact with the donor and they know a lot about the performance measurement of overall operations. The researcher wanted to enhance flexibility and emergent design during the interview; hence, different issues were discussed as naturally occurring talk depending on the interviewees’ interest and knowledge of the issues. The full interview guides are attached as appendices 1-3. The table 7 presents the justifications for the interview questions.
<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Interview question</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Context: How do you see operational environment of humanitarian assistance?</td>
<td>To gain understanding about the operational industry, how the interviewees perceives it.</td>
</tr>
<tr>
<td>Fida and local partner</td>
<td>Content: What are the metrics and standards that Fida uses to measure logistics</td>
<td>To gain understanding about metrics used for suppliers and partners and to understand what are the standards for logistics.</td>
</tr>
<tr>
<td>employees</td>
<td>performance?</td>
<td></td>
</tr>
<tr>
<td>Fida and local partner</td>
<td>Process: How often, who carries out and what kind of systems Fida has to measure</td>
<td>To gain understanding how the process to measure logistics activities is done and who are the parties conducting the measurement.</td>
</tr>
<tr>
<td>employees</td>
<td>performance of the supply chain?</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>Stakeholder involvement: How could be beneficiaries be more involved in developing</td>
<td>To understand the involvement of the important stakeholders and is there places to improve beneficiary engagement.</td>
</tr>
<tr>
<td></td>
<td>performance measurement standards? Who are the most important stakeholders?</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>What are the reasons to measure performance in humanitarian operations?</td>
<td>To find out what are interviewees’ perceptions about performance measurement of logistics and overall operation.</td>
</tr>
<tr>
<td>Donor</td>
<td>What are the requirements for funding?</td>
<td>To understand the requirements and reasons for funding and to understand the role of the donor.</td>
</tr>
<tr>
<td></td>
<td>What kind of impact donor has for the performance measurement of humanitarian</td>
<td></td>
</tr>
<tr>
<td></td>
<td>operations?</td>
<td></td>
</tr>
</tbody>
</table>

Table 7 Justification for interview questions
### 3.3.2 Written documents

Written documents and reports from the case NGO are analyzed as part of data collection methods. Denzin and Lincoln (2003) distinguishes two types of written documents: reports and documents. They define records such as, diaries, field notes and personal notes, whereas documents are official documents such as, banking statements, marriage certificates and other documents that might be restricted to use due to confidentially issues. In this thesis, both archival records and documents defined by Denzin and Lincoln (2003) are used. These reports are annual, triannual and evaluation reports from the humanitarian operations because the case NGO permitted the researcher to use the reports in this research. Besides, guidelines to measure performance and publicly available manuals from the donor are used to analysis in this thesis. Table 8 presents the reports used in this thesis and their relevance.

<table>
<thead>
<tr>
<th>Written document</th>
<th>Relevance &amp; Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor’s guideline</td>
<td>To compare and to support data gained from interviews in order to ensure reliability of the statements from the interviews.</td>
</tr>
<tr>
<td>Sphere Standards</td>
<td>To compare information from the interviews to actual content of the Sphere standards.</td>
</tr>
<tr>
<td>Fida’s final reports of their operations, 6 in total</td>
<td>To find accurate metrics, if the information provided from the interviews does not mention the metrics used in final reports and to support the findings from the interviews.</td>
</tr>
<tr>
<td>Documents from local partner</td>
<td>1 Pre-purchase document, 4 post-distribution evaluations in French, to find out about the metrics what they use to measure logistics.</td>
</tr>
<tr>
<td>Life stories of one Fida’s operation</td>
<td>To compare and support information gained from the survey.</td>
</tr>
</tbody>
</table>

### Table 8 Written documents used

As one can see, the information gained from the written documents are used either to support the findings from the interviews or to compare them to enhance reliability of the information gained from the interviews. Thus, written documents are used as additional data source.
3.3.3 Survey

Survey can be used as data collection method when other method are not applicable or they would answer the research question (Saunders et al., 2016). In survey, the questionnaire for the respondents are decided previously and the questionnaire design is critical to obtain the data that answers for the research question (Saunders et al., 2016). As the beneficiaries are difficult to reach (Starr and van Wassenhove, 2014), survey is the only data collection method to reach the beneficiaries as they do not have internet. The full version of the survey can be found as appendices 4. The most relevant questions regarding this thesis is presented and justified in the table 9.

<table>
<thead>
<tr>
<th>Survey question</th>
<th>The scale</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Could you describe how Fida's operation has changed your life?</td>
<td>Open question</td>
<td>To understand how beneficiaries view the impact of the operations.</td>
</tr>
<tr>
<td>6. What kind of assistance has been the most important for you?</td>
<td>Open question</td>
<td>To understand better the needs of the beneficiaries.</td>
</tr>
<tr>
<td>7. What would you like to improve/change in the operation?</td>
<td>Open question</td>
<td>To find out improvement places for the operations</td>
</tr>
<tr>
<td>8. What are your thoughts and ideas for the operations in the future?</td>
<td>Open question</td>
<td>To adjust the operations better according to the wishes of the beneficiaries.</td>
</tr>
</tbody>
</table>

Table 9 Justification for survey questions

The survey was conducted only to one operation, but due to the safety reasons the location of beneficiaries cannot be mentioned in order to secure their safety in the area. The respondents of the survey are children and women as they are the participants of the activities in humanitarian operation such as sewing classes and education and they were the only reachable ones during the short period to collect the data. Moreover, similar data collection method is used in customer satisfaction surveys as the people used the service are the only ones who can share their experience about the survey rather than people who have not used the service. The same logic applies in this context as the beneficiaries are the customers of the humanitarian aid (Shiffling and Piecyk, 2014).

However, as the respondents are only women and children the data is not representable of the whole population. The intent is to use the data to support the arguments from the
interviews. The snowball sampling method is used in this data collection method as one contact (Fida employee) led towards the beneficiaries. Table 10 presents the general information about the respondents.

<table>
<thead>
<tr>
<th>Information</th>
<th>Women</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Age average</td>
<td>36.1 years, 23-53 years</td>
<td>10.9 years, 6-13 years</td>
</tr>
<tr>
<td>Participated activities</td>
<td>3 sewing class and education,</td>
<td>4 education and psychosocial support, 6 education</td>
</tr>
<tr>
<td></td>
<td>2 sewing class, 4 education, 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>psychosocial-support</td>
<td></td>
</tr>
</tbody>
</table>

Table 10 General information about Survey respondents

In this research, survey is used as additional data source to confirm the findings how beneficiaries have perceived the influence of the humanitarian operations to their lives and how beneficiaries are heard during humanitarian operations. Due to recognized possible biases in the survey, the results of the survey are used only to support the findings from other data sources, not as data of its own.

3.4 Data analysis

As research is evaluated from systematic data collection and data analysis (Saunders et al 2016), data analysis is valuable part of the research. This chapter intends to present the data analysis methods for each data collection method. As Spens and Kovacs (2006) propose that data analysis defines the research methodology, this research adapts qualitative analysis to the data collection. Several analysis methods exist in supply chain research to analyse several data collection methods such as content analysis, thematic analysis and other specific models (Spens and Kovacs, 2006; Scholten et al., 2010; D’Haene et al., 2015). However, several scholars have used content analysis both as a qualitative and in quantitative analysis (Spens and Kovacs, 2006; Kunz and Reiner, 2012; Seuring and Gold, 2012). Besides, some scholars have applied thematic analysis (McLachlin et al., 2009; Scholten et al., 2010).

Furthermore, Seuring and Gold (2012) propose that content analysis is suitable for analysing unstructured data such as semi-structured interviews and written documents. In this research, content analysis is utilized to analyze both written documents and survey results. For the analysis of the survey results, qualitative analysis is applied in
form of saturation point referring to the point when the informants have repeated the same information, thus the information is concerned to reach its saturation (Saunders et al., 2016).

Silverman (2011) discusses several differences with content analysis and thematic analysis; content analysis tend to prefer quantitative approach as the categories are prior established, while thematic analysis allow emergent themes rising from data collection. In fact, thematic analysis provides key respondent statements as a result from data analysis (Silverman, 2011). Content analysis is applied in order to present the strengths of qualitative data analysis in form of statistics. Thus, each category and their representation in the transcribed interviews will be presented. Thematic analysis is applied in the last stage to represent the important findings through statements of the interviewees.

Moreover, Spiggle (1994) proposes several tools to analyse qualitative data such as categorization, abstraction, dimensionalization, comparison, integration, iteration and refutation. Categorization is an analysis tool to label and name the units of data by the use of coding the data and categorization can take deductive or inductive approach. Categorization is commonly followed by abstraction as during abstraction researcher creates general concepts from categorization in order to involve theory-building. (Spiggle, 1994)

Comparison is involved in each stage of the analysis as this tool compares results from different data collection methods (Spiggle, 1994). Comparison can be used to compare categories from different data collection in order to abstract more general themes (Spiggle, 1994). Comparison analysis tool is used throughout the analysis as the categories and abstracted themes from different interviews are compared with each other and the findings are compared between different data sources to verify the gained data.

Categorization and abstraction are the basis of the coding the transcribed interviews. Besides, the categories in this research are data-driven, meaning that the categories are defined from data, not from the literature. During abstraction, the researcher intends to abstract themes from the data for the thematic analysis and the themes are drawn from the literature part. This is shown in the table 11 as the theme “humanitarian operations” are later applied to the abstract from the theoretical framework. This way the researcher enhance the abductive research approach during the analysis to allow emergent data to
be captured and to extend the findings to the applied theoretical framework. The table 11 present one example.

<table>
<thead>
<tr>
<th>Category:</th>
<th>Note from the interview:</th>
<th>Code</th>
<th>Theme</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenges in humanitarian operations</td>
<td>“Unfortunately you may find out that the assistance that you have been providing may cause some intercommunity conflict.” R1</td>
<td>R1 Challenges in humanitarian operations</td>
<td>Humanitarian operations</td>
<td>Context: supply chain factors</td>
</tr>
<tr>
<td>Negative aspects of Fida’s operations current situation</td>
<td>“And countries like DRC, it has taken a lot of time like it is kind of like people are, the donors are.. the donor fatigue is something that people talk about. That they don’t see the progress of the country even tough there has been a lot of help.” O1</td>
<td>O1 Negative aspects of the current situation</td>
<td>Humanitarian operations</td>
<td>Context: supply chain factors</td>
</tr>
<tr>
<td>Descriptions about humanitarian field</td>
<td>“And if you can make a difference for the children so that they can start playing again or laughing again or having some sort of hope for the future, I think that is a big thing. And will change their lives. Cuz it does not always need so much, but it does need something.” H1</td>
<td>H1 Description of the humanitarian operation</td>
<td>Humanitarian operations</td>
<td>Context: supply chain factors</td>
</tr>
</tbody>
</table>

Table 11 Data analysis

Spiggle (1994) proposes two approach to integrate data: axial coding and selective coding. Axial coding aims to combine categories because of their similar strategies and characteristics, while selective coding follows more positivist approach to find causal, hierarchical and relational connections between the categories (Spiggle 1994). From the table 11, one can find out that this research applies axial coding as it combines categories that share similar characteristics (descriptions of humanitarian operations) into broader themes. Besides, Spiggle (1994) discusses strategies to apply inductive reasoning to analysis: iteration. Iteration strategy does not separate data collections but rather allows constant analysis of the data (Spiggle, 1994). Iteration is applied as different codes and categories are combined from different interviews to form themes and abstracts. Following interpretivism philosophy, the data analysis will apply axial coding and iteration as the strategy.

Dimensinalization defines different characteristics of categories and places respondent’s constructs to continua (Spiggle, 1994). Dimensinalization helps the researcher to connect the categories to theories in two ways: integrating categories with theory and clarifying categories (Spiggle, 1994). Besides, integrating the data with the theory is essential part of data analysis in abductive approach (Spens and Kovacs, 2006). This is
applied in the analysis as each themes are dimensionalized based on the categories and the occurrence of the information in the data meaning that similar statements from the interviews are collected and combined to form dimensions of the one category. Moreover, integration of data collection and analysis to broader concept is essential part of SCM discipline (Halldorson et al., 2015). Thus, integration is essential part of the analysis in this research.

### 3.5 Research quality criteria

Traditionally research is evaluated through validity and reliability (Belk & Wallendorf, 1989; Silverman, 2011; Saunders et al., 2016). However, Belk and Wallendorf (1989) argue that qualitative research cannot be evaluated through validity and reliability, as internal validity neglects the subjective reality creation, external validity contradicts with generalizing the cases, reliability contradicts with nature of emerging data and objectivity conflicts with the nature of naturally occurring data. Halldorsson and Aastrup (2003) propose alternative quality assessment as trustworthiness that combines dimensions of transferability, dependability, confirmability and credibility to be used to assess qualitative logistics research. Supporting this view, Patton (2015) propose alternative quality criteria for research undertaking interpretivism paradigm: trustworthiness. Table 12 presents the definitions of the criteria applied and its assessment in this research.

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<tr>
<th>Criteria</th>
<th>Comparison of criteria</th>
<th>Assessment in the research</th>
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<tr>
<td>Credibility</td>
<td><strong>Internal validity:</strong> The degree of comparison between the findings to the reality. (Halldorsson and Aastrup, 2003)</td>
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<td><em>Credibility:</em> Sufficient amount of presented constructs of reality. (Belk &amp; Wallendorf, 1989)</td>
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<td>-Triangulated data collection to compare findings.</td>
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<td>-Use of saturation point throughout the research.</td>
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<tr>
<td>Transferability</td>
<td><strong>External validity:</strong> The degree of generalization of the results. (Halldorsson and Aastrup, 2003)</td>
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<td><em>Transferability:</em> The degree of application of the research to other contexts. (Halldorsson and Aastrup, 2003)</td>
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<td>-Use of emergent design of the research.</td>
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<td>-Respondents presents the whole supply chain.</td>
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Dependability: The prerequisite for validity, the degree of replication of the same context to confirm the findings. (Halldorsson and Aastrup, 2003)

*Dependability:* the degree in which logical interpretation of the data has been applied to present coherently the studied phenomenon. (Belk & Wallendorf, 1989)

- Visiting the site (the locations of interviews) again to find connection through change.
- Transcribing and recording the interviews.
- Asking clarifications from interviewees after interviews, if necessary.

Confirmability: Level of objectivity in regards to used method to assure that the research is free of researcher's biases. (Halldorsson and Aastrup, 2003)

*Confirmability:* transparency of recorded data and its analysis in order to follow researcher's interpretation. (Belk & Wallendorf, 1989)

- Use of reflexive journals referring to use of notes during the interviews.
- Use of different data collection methods (triangulation).

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<th>Table 12</th>
<th>Quality assessment of the research</th>
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<td>Dependability</td>
<td>Reliability: The prerequisite for validity, the degree of replication of the same context to confirm the findings. (Halldorsson and Aastrup, 2003)</td>
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<td>Confirmability</td>
<td>Objectivity: Level of objectivity in regards to used method to assure that the research is free of researcher's biases. (Halldorsson and Aastrup, 2003)</td>
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<td>Confirmability: transparency of recorded data and its analysis in order to follow researcher's interpretation. (Belk &amp; Wallendorf, 1989)</td>
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4 CASE STUDY: FIDA INTERNATIONAL

This chapter presents the case study of Fida International. Firstly, the organization is introduced including their current humanitarian operations and introducing logistics of their operation. Secondly, the results in the CCP framework will be presented in sections Context, Content and Process. Thirdly, importance to measure performance is presented according to the interviewees.

4.1 Fida International

Fida International is Finnish development cooperation and mission organization that also operates in humanitarian field established in 1927 (Fida, 2018). In 2017, Fida had 49 cooperation countries, Fida’s development aid benefitted 2.9 million people and in Iraq Fida provided humanitarian aid for 27 000 people (Fida, 2017). At the moment Fida employees 31 people in Finland and 37 specialists in oversees as specialist for development cooperation, missionary work or to humanitarian assistance, in total Fida employees 187 people (Fida, 2017). Fida’s values stem from Christian worldview and their partners around the globe are Pentecostal churches and NGOs to support the local communities (Fida, 2018).

4.1.1 Financial sources for Fida

Fida has divided their financial sources into five categories: 1) grants for development and humanitarian aid from Ministry of Foreign Affair Finland and EU, 2) donations and Godchild- sponsorship programs, 3) payments from churches, 4) profits from Fida secondhand-stores and 5) testaments and other sources (Fida 2017). Figure 6 presents each categories’ proportion according to Fida’s annual report 2017 (Fida, 2017).

Figure 6   Fida’s financial sources 2017 (Fida 2017)
In 2017, Fida received 18,987,000 euros in total and 51% out of Fida’s finances were funded by governmental grants and the amount was decreased from 2016 by 884,000 € (Fida, 2017). Cuts on governmental support have had influence also to Fida as an organization and the challenges related to competition of funding and organizational changes will be discussed later. One source for Fida’s funding comes from its member Pentecostal churches. However, these finances from churches are used only to finance services for employees oversees in missionary work and their school fees. Thus, these finances from churches are not used to finance humanitarian operations or development cooperation (Fida, 2017).

4.1.2 Fida’s humanitarian operations

Fida has had humanitarian operations in Ethiopia, Uganda, Democratic Republic of Congo (DRC), Iraq and Nepal (Fida, 2017). In 2017, Fida had two active operations in Iraq and in Democratic Republic of Congo (DRC) according to the interviewees. Therefore, next section gives an overview of Fida’s current operations only as they are in the focus of the thesis.

4.1.2.1 Iraq

Due to the latest war between Iraqi government and Islamic State militants in Iraq during the past three years, 5.8 million people in total had to flee their home and 249,000 people had seek asylum in Iraq from Kurdistan region caused by Syrian conflict. In total 8.7 million people needs humanitarian assistance in the region. In 2017, Islamic state ended their operations in Mosul leaving the area in the new phase of humanitarian crisis. Today, humanitarian assistance is required to address the needs to protect people from Islamic State, help children to go back to school after several years and give psychosocial support to the traumatized people suffering from mental health problems or in recovery from sexual violence. (ECHO, 2018)

Fida’s humanitarian operations supports kids to go back to school after returning from refugee camps. Fida’s humanitarian operations ensures the continuity of the school system for children by additional schooling systems if the local teachers have not been returning. By supporting children’s education, Fida’s operations help them to continue as normal life as possible. (Fida International, 2017)
4.1.2.2 Democratic Republic of Congo

Due to sudden outburst of violence in Kasai region, the humanitarian conflict degenerated rapidly in the area forcing humanitarian actors to mobilize the aid to the area in 2017. UN Officers acted immediately and help from the donors enabled UN Officers to launch Flash Appeal to support people affected in the crisis in Kasai region. However, the aid only reached 33% of the affected people counting up to 2.7 million people. In 2017, 13.1 million people need humanitarian aid in Democratic Republic of Congo (DRC). (UN OCHA, 2018).

Fida’s operations have intended to strengthen women’s position and gender issues recognizing and supporting the most vulnerable groups in the area. In practice, Fida has helped 8902 households in Congo including the host families on 2016. Fida’s humanitarian assistance in Congo includes three components: food security, distribution of non-food items and psychosocial support. Food security assistance included distribution of food items to refugee camps and host families. Distribution of non-food-items included distribution of household supplies, cash and vouchers. Psychosocial support help the progress of recovering from trauma. Due to Fida’s psychosocial support, the beneficiaries are now able to recognize their positive and negative feelings. Besides, Fida’s psychosocial support has helped the children to return to their daily routines as it has supported the recovery of their self-value. (Fida International, 2017)

4.1.3 Logistics in Fida’s humanitarian operations

This section describes logistical activities of Fida’s humanitarian operations based on the interviews and analysis from the donor’s guidelines. Two donor interviewees described logistics considering global humanitarian supply chain and its activities, whereas two interviewees from Fida and one from local partner described Fida’s logistical activities. From these three interviews, several categories defining Fida’s logistical activities were created: procurement, transportation and distribution (last-mile delivery).

One interviewee from donor and four interviewees from Fida viewed Fida’s logistical capacity very limited compared to larger humanitarian organizations.

We don’t have our own vehicles, we have our own vehicles just for the staff. But anything that is transported is that it is always local. We don’t have our means for that. (F1)

Due to Fida’s limited logistical capacity, the role of their local partner becomes inevitable, as according to four interviewees from Fida, the local partner is responsible for logistics in Fida’s humanitarian operations.
So the logistics is something that the local partner takes care of. (F2)

Hence, most of the practical questions in regards to logistics were addressed to one interviewee from the local partner. According to the local partner interviewee, logistics is present from the beginning of the operation, as one person from the logistics team has to be present in the first phase of the assessment of the humanitarian assistance to estimate the logistical constrains of the operations. From there, logistical activities have several stages: procurement, warehousing, transportation and distribution.

One constrain related to the procurement raised several times from the interviews: Fida’s obligation to follow public procurement procedures as Fida receives governmental funding for its humanitarian aid. This is also supported in donor’s guideline for their funded NGOs as following:

> When a discretionary government transfer is used for procurements, Finnish organisations must take into account the relevant provisions of the Act on Public Contracts (Laki julkisista hankinnoista 348/2007) and applicable government decrees. (Ministry of Foreign Affairs for Finland 2015)

According to three interviewees, this is reflected in practice to supplier selection, as Fida has two different ways of selecting the suppliers during procurement. According to the interviewees, one way to select suppliers is direct procurement. In direct procurement, items are directly purchased from the suitable suppliers. One interviewee described that in this type of procurement, commonly the local partner have built good supplier relationships and they know from where to buy:

> From experience of working in area, you just get to know the field quite quickly. And you build relationships with good vendors. (F2)

Local partner interviewee describes the other procurement process as more complex. The process becomes more complex according to the interviewee as the local partner needs to apply open competition for suppliers through tendering due to the Act on Public contracts, as it requires open competition when procurement exceeds certain monetary value. According to local partner interviewee, the more complex procurement is presented in Figure 7:
As the interviewees describes, Fida’s supply chain structure is highly influenced by the supplier selection process. Other factors influencing to Fida’s supply chain structure will be later discussed in section 4.3.4 on the page 57.

Another requirement from donor in regards to the use of their provided funds is to prefer local procurement due to environmental and sustainability reasons mentioned by two interviewees from donor.

Our hope is that as much as possible organizations would buy locally. If we look at the climate and environmental perspective, it is because then there is less transportation emissions and less transportation cost. (D3)

4.2 Context: Organizational structures

This section describes Fida as humanitarian organization, Fida’s organizational structure, Fida’s strategy, Fida’s experience in the field, history, organizational culture, Fida’s values and management methods as they are part of CCP analysis. The findings are raw results and they will be late discussed in section 5. As interviewees consisted of different stakeholders of the supply chain, thus they possessed knowledge on different issues. Therefore, saturation point was utilized to argue the strength of the statements presented. Besides, the strength of the statements were argued based on their occurrence as content analysis suggest.

4.2.1 Fida’s organizational structure

According to Finnish Association law, the board of the association is liable financially about the organization’s assets (Finlex, 2018). One interviewee discussed about how the association has great influence on Fida’s organizational structure. The same interviewee mentioned the impact of the association to Fida’s structure 16 times.
Because in association, the members of the association have the highest decision-making power and the board of the association cannot divide that responsibility. This is due to the law, so we cannot change that setting and it requires always that the board is well informed and requires certain hierarchy. (F5)

The Board of the Association consist of 13 representatives from the member churches, who are selected for 3 years at a time. The members of the board are selected amongst the member churches. The board influences to Fida’s management by guiding the decisions:

The Board has great influence to managing Fida and the views and guidance coming from the members has great influence to our work. (F5)

According to the one of interviewees from Fida’s management, Fida applies line organization that is hierarchical model for its organizational structure to highlight the liability of the decisions in the board:

We have thought that due to our operational environment and characteristics of the members of the association, we have to keep the organizational structure as it is and it needs be clear. Hierarchy is clear and responsibilities have divided right. (F5)

In 2013, Fida changed their organizational structure from centralized organization to decentralized organization structure in order to enhance the authority on the operational level. Three interviewees mentioned this organizational change. During the change, more bureaucracy and hierarchy were created to enhance the power of the Board of the Association:

So the ones that are accountable for the decisions are the ones making the decisions even tough, they might not be involved in the operations. But the decision-makers have to be well informed and understand fully the decisions. (F5)

As the authority lacked previously on the field causing many problems such as delays in cash transfers, these changes in organizational structure were made to tackle that issue:

The quickest transfer I have received is about two weeks, but the longest is three months. They have created a system (for approval to money transfer) which they (Fida) have now improved, but it was a nightmare. (F1)

This influenced greatly to operational performance of the operation. The change had positive outcome as the approval system is now a bit improved: the authority is delegated to the field and the relationships with local partner are closer.

The good sides are that we can react today quite fast to the challenges at any country or region and it had made closer our relationships with our local partners...We have tried to lighten the decision-making. (F5)

However, some challenges still exists as in any globally operating company commonly: long distances, different working hours, and different working styles in different
countries as one interviewee stated. These factors affect the supply chain and its performance as different time zones might cause delays to the communication and operations.

4.2.2  **Fida’s strategy for humanitarian aid**

The mission for Fida’s humanitarian aid is to save lives, mitigate agony and to strengthen human dignity. Now Fida has separated strategy for its humanitarian aid and the humanitarian strategy has key focus areas that were created according to recommendations of evaluators, who evaluated Fida as humanitarian organization by the request of the donor in 2017. Both donor interviewee and evaluators were concerned that Fida should have separated strategies for its humanitarian assistance and missionary work:

> According to the evaluators, the humanitarian strategy was not clear enough. Because it existed, already when the evaluation were conducted and I were wondering about that conclusion from evaluators. But then it (Fida’s humanitarian strategy) became even more clearer. .. (D3)

Fida’s strategy specifically for humanitarian aid was created through workshops in spring 2017 according to three interviewees. The strategies were created in collaboration with the employees working in the department to engage them with the strategy:

> The actual strategies that guide the work were built through involving the employees to create the strategy by selecting the people from their teams to establish strategy teams. So it was very participatory event. (F5)

This strategy building received positive feedback from the employees according to one interviewee. The same interviewee described that participatory strategy creation engage employees so that employees can find themselves in the strategy.

Despite of the established humanitarian strategy, the evaluators viewed that Fida should include long-term indicators for two of their beneficiaries: local partners and aid beneficiaries (Crenn et al 2017). Still, the strategy for humanitarian aid does not include indicators for these stakeholders and considering the logistics of the operations, the strategy does not include indicators for measuring logistics.

4.2.3  **Fida’s history and experience in humanitarian aid**

Analysis of history and experience of the organization is one part of CCP framework. For Fida’s history, Fida was the first non-governmental organization to receive governmental funding for its humanitarian operations in 1974 (Kivikangas & Leinonen 2014, p.101). However, Fida started to implement humanitarian assistance in 1984 according to one
interviewee. The forms of Fida’s humanitarian aid has been presented earlier in the section 4.1.2 According to the one interviewee, Fida has always tried to adjust the operations towards the most suitable solution for the beneficiaries. However, from donor’s perspective NGOs should have one key focus area in order for them to find their place in global humanitarian operations:

I see that all our funded NGOs have clear profile what they are doing, except Fida who does everything everywhere or not everywhere as they have only few countries. Their previous sector specific development has been a little lost. (D3)

According to Civil Society 2 evaluation conducted by the request of the donor, one of the Fida’s strengths is its knowledge in psychosocial support (Crenn et al., 2017). Three other interviewees mentioned that Fida can create value in psychosocial support:

Now Fida has started to focus on more what we have asked them to focus on education in emergencies and psychosocial support, in which we have seen that Fida can bring additional value. (D2)

However, one interviewee viewed this problematic as in humanitarian assistance the organization is required to meet the needs of the beneficiaries and there are more needs than the provided aid:

Maybe they (beneficiaries) say that they want this, but then the donor might say that you need to focus on these two sectors, don’t take anymore. (F2)

This is problematic when the need of humanitarian aid conflicts with the views of the donor, since humanitarian organization is required to follow the interest of the donor to ensure the continuum of the operations. These interrelations with different stakeholders will be discussed later in detail in section 4.3. p. 52.

Out of nine interviewees, four described Fida as a small humanitarian organization that is not operating in the first phase of the humanitarian response:

Like we don’t have kind of logistics, like when something happens we could just start up a hospital, that is not who we are. (F2)

4.2.4 Fida’s values, management and organizational culture

According to CCP framework analysis, management style and organizational culture can affect to performance measurement of the supply chain (Cuthbertson and Piotrowicz, 2011). Fida’s values are Christianity, respecting human dignity, regeneration and trustworthy partnership (Fida, 2018). One interviewee highlighted seven times how Christianity as a value guides Fida’s work:
In some other connection, Christianity might not be viewed as organization’s value, but we wanted to take it as a value, so that we have Christianity as a starting point for all our work and the leadership should reflect and be together with the value... If we consider basis of development cooperation, it starts from strong perception that there are no better or worse people but everyone has equal value and we have to carry out these values persistently. (F5)

However, one of the key principals in humanitarian assistance is its impartiality, not favoring any religion or ethnic group. Therefore, it was very critical for Fida to separate its strategies for their humanitarian assistance and missionary work.

Evaluators of the donor noticed that committed employees is one of Fida’s strenghts (Crenn et al 2017). According to one of the interviewees, Fida’s employees’ passion for their work is one of the key part in the implementation of their overall strategy. Interviewees described that the passion for the employees comes from Christianity as employees can truly feel that their purpose of existence through their work as their work is their “Life’s calling”.

Another highlighted value for Fida is being trustworthy partner. One interviewee viewed that being trustworthy partner is one of the guiding values for Fida.

We want to be trustworthy partner and it is one of the starting points in our work. If we are quitting any operation we want to ensure that it happens in right way and trustworthy... So our values Christianity and being trustworthy partner have strong influence to our work. (F5)

One of the interviewees mentioned that discussion culture is easily approachable and suggestions and feedbacks are considered seriously. This is reflected in Fida’s management style as Fida’s management strives for open and transparent management methods according to one interviewee:

We strive for open, transparent and participatory management... this work is done by people and depended on people... we are striving for that everyone can experience their own calling and it call comes from strong value system, the management too. (F5)

4.3 Context: Supply chain factors

According to CCP framework, supply chain factors that can affect to performance measurement systems are the operational industry, supply chain stakeholders, relationship integration, company size, and geographical coverage, maturity of the supply chain, products and their strategic goals (Cuthbertson and Piotrowicz, 2011). As company size, strategy of the organization and their products (humanitarian operations) are presented earlier in section 4.1, thus, this section describes the industry of the case organization. In this section the context factors of the CCP framework will be adjusted to present categories that inductively were conducted from the interviews. As some of the parts of the CCP framework is strongly connected to the stakeholder network theory such
as analysis of the stakeholder’s relationships within the supply chain, thus the results are also presented through analytical lenses of network theory examining the relationship and their density within the supply chain.

4.3.1 Humanitarian operations

Eight out of nine interviewees described humanitarian operations and its purpose. Five out of eight interviewees who described humanitarian assistance define the purpose of humanitarian assistance as lifesaving.

The humanitarian of course is, we are trying to save lives that the main thing. We want to hold on to human dignity, and help people you know to survive and to cope with the situation that they are in. (F1)

Five interviewees mentioned that the affected people should be at the centre of humanitarian assistance and humanitarian assistance have great impact to lives of the affected people. The reason why the affected people are in the centre of humanitarian operations comes from the principals of the humanitarian aid that all the humans have right to the aid during the crisis.

I would highlight the rights-based principal that comes from Human Rights law and written agreement on the responsibilities towards civilians in war: when the people are in the need of protection and when others are required to give the protection. (D2)

However, not all the interviewees agreed upon the definitions of humanitarian aid. One interviewee viewed that the local authorities do not want short-term operations focusing only to the lifesaving aspect, but rather more sustainable assistance that can change to the society:

The officials have been talking about don’t just bring here humanitarian aid and leave, you have to change also the attitude of the people. When you thinking that you cannot always do purely humanitarian lifesaving that it is not sustainable. (F2)

One interviewee from donor proposed a solution for this: establishment of social security to these countries. However, it is very difficult due to corrupted government in some countries:

But the establishment of the social security is challenging as the government itself in these countries is the problem. (D1)

Nevertheless, it seems that the governmental donor has very strict definition about their funded humanitarian aid. The view of donor has great impact on what kind of operations the organizations can request for funding:

But concerning our funder, they want draw the line at lifesaving. So if its not lifesaving then it is development work. So it is a continuous kind of trying to understand which is it which is it. (F3)
Three interviewees explained this phenomenon by stating that due to financial cuts, the governmental donor must prioritize their funded operations:

> I know the donor think that they have so little money, compared to the development department, that the money they give as humanitarian assistance should be targeted very few needs and then the development money could contribute to building the link. (F2)

In total seven interviewees describe differences between humanitarian assistance and development cooperation. Two interviewees mentioned about the global discussion in humanitarian field how the shift should be from recovery to development.

> This continuity discussion, like how the best to combine humanitarian relief aid and reconstruction, so this recovery and development. (F3)

However, one interviewee viewed that the line between development aid and humanitarian assistance is indefinite. The same interviewee describes several times how communities that are more looking towards the future and have more sustainable structures, then the given aid work is development.

> The line that we try to draw is that early recovery is kind of in the middle. Any activities in early recovery help to support life is humanitarian and early recovery that is looking towards the future should be more development. (F3)

Nevertheless, the same interviewee discussed about different perception that organizations have towards defining humanitarian operations. While donor has drawn the line towards lifesaving, other organizations view humanitarian aid as more long-term operations such as their local partner, who has working ten years in the region as humanitarian actor.

> So it really depends on the organization and how they choose to see what is development and what is humanitarian. (F3)

Another issue mentioned by three interviewees is the differences between working in camp setting and in communities during humanitarian operations. According to the interviewees, working in the refugee camp or settlement differs from working with communities to which people are living amongst host families as in camps the humanitarian aid is more coordinated and regulated. One interviewee mentioned two times that camps are commonly used in the areas where conflict is prolonged and the camps becomes part of the country’s structures. Another interviewee mentioned that in Uganda these refugee camps are the only place for refugees, whereas in Democratic Republic of Congo, refugees are hosted at communities in host families. Another interviewee described that working in communities with the refugees in host families is more demanding than with refugee camps, because in refugee camps the humanitarian
aid is very regulated and organized in the settlements, compared to the work in community where the organization are required to find the beneficiaries and their needs themselves.

If you go to talk to the camp, the camp has structures and they have the camp leaders who are used to work with the NGOs and there are more rules and so when you go in to the community you have to build the relationships yourself. (F3)

4.3.2 Challenges in humanitarian field

This section presents the different challenges identified by the interviewees in regards to humanitarian operations. To begin with, two interviewees clearly stated that humanitarian operations are challenging and the risks of the operations are involved from the beginning of the operation. In total, all nine interviewees mentioned this category by 65 times.

One of the greatest challenge in humanitarian field according to the interviewees is the unpredictable nature of the field. In total four interviewees mentioned this challenge twelve times. Unpredictability of the field is reflected in the operations as changing locations of the beneficiaries, uncertainty related to estimations and planning of the needs, unplanned surplus on the budgets and changing needs of the beneficiaries.

To know exactly where and how much and what is always a challenge. That is the one of the major major problems. (F1)

Another challenge mentioned by three interviewees eight times is aid dependency, since humanitarian operations are targeted for lifesaving purposes and for some poorer countries, receiving humanitarian aid might be their only possibility to receive any kind of aid.

Chronically poor countries have the problem that there are no development aid funding going to these countries so these countries only receives funding when the situation fulfils relief aid indicators. Then when you have done the relief aid operation and here and there dropped some kind of aid and then you are finished with money and the situation goes back to chronic poorness. (D1)

Supporting this view another interviewee stated that in countries where the humanitarian aid has become part of the society, the government wants to hold on to the humanitarian in order to receive aid. According to interviewees, this aid dependency is one of the barriers in building bridge between humanitarian aid and development aid to ensure continuity of the operations from recovery to reconstruction.

Third challenge discussed by two interviewees is the lack of funding in humanitarian operations. For Fida, the cuts on the governmental funding forced Fida to drop out some
of their operations suddenly, in spite of the good partnership and importance of the operations. Due to cuts on governmental funding, the donor has to strictly prioritize the operations, which they will fund according to the interviewees. However, one interviewee from Fida viewed this problematic as then the organizations cannot truly give the aid according to the needs of the people:

We wanted to include some of the aspects (vulnerable children of raped mothers), but donor did not approve them. (F2)

Due to the cuts on funding, now NGOs are forced to compete for the available finances.

Well our financed six NGOs are also competing for our annual budget for funding in a way. (D3)

Fourth challenge were the future of humanitarian. The challenges in the future were briefly discussed such as the locational change in humanitarian assistance to Europe, the impact of climate refugees and the technological innovations and their possibilities to humanitarian aid.

Fifth challenge discussed by three interviewees is to tailor and target the humanitarian aid for the beneficiaries. One donor interviewee discussed the problems related to standardized package such as the package does not fulfil the diverse needs of the beneficiaries.

The problem is that we have not been able to meet truly the needs of the field and people’s needs are diverse. But this is something that the global collective humanitarian community should look at more and they need to consider how to gain the data for it. (D1)

4.3.3 Logistical challenges in humanitarian operations

This section presents the logistical challenges mentioned by the interviewees. In total four interviewees mentioned logistical challenges in humanitarian operation; two interviewees described challenges within global humanitarian supply chain and two interviewees described challenges related to Fida’s supply chain. Challenges related to global logistics were mentioned 17 times during the interviews. However, both of the categories are presented as challenges with global logistics are applicable for Fida’s operations.

Procurement laws are restricting and complicating the procurement processes for both UN organizations and NGOs who receives money from any government.

It is obvious that certain procurement laws bind us and as well UN organizations have their own regulations that they have to follow. For instance, they have to make a tender over items that are valued over 1000 dollars and the value, which they have to tender, is very low. (D1)
Another challenge with logistics is with the hard-to-reach locations and expensive last-mile delivery. Both donor interviewees who discussed the challenges related to logistics stated:

One of the essential problems have been precisely enormous distance. For instance in South-Sudan people might walk 50 kilometers to get to humanitarian aid distribution center. Cash assistance could be one solution in some countries to s the situation better. (D1)

In addition, Fida’s humanitarian operations have other challenges discussed by the local partner interviewee and one of Fida’s employees. The local partner interviewee mentioned two main challenges related to the logistics: unreliaibility of the suppliers and conflicts between suppliers caused by tendering process. Another challenge with suppliers mentioned by Fida’s employees is that the local suppliers tend to sell products with higher price to foreign buyers. Thus, it is beneficial for Fida that the local buyer is responsible for the procurement. The last challenge discussed during the interviews affecting to logistics is delays on cash transfers caused by organizational hierarchy. This affects to procurement, as without good relationships with suppliers, some items might not have been purchased.

4.3.4 Fida’s humanitarian supply chain

This section describes Fida’s humanitarian supply chain according to the interviews. Figure 8 presents Fida’s supply chain structure.

![Figure 8: Fida's supply chain](image)

In the Figure 8, the simple version of Fida’s supply chain structure is presented from the refugee camp setting in which local authorities and UN Clusters are present. Fida also operates in local communities, in which the supply chain structure is different. However,
this research focuses on the supply chain as a whole recognizing the influence of UN Clusters, local authorities and other NGOs as part of the supply chain.

In the figure 8, the different arrows presents different supply chain functions. Results indicate that information flows all around the supply chain, even between international donor and local government. In the field, Fida has employees working together with the local partner as the employees in charge of the humanitarian operation. One of the interviewees highlighted that Fida’s supply chain is relatively short as their local partner is responsible for the operations together with Fida’s employees, so Fida can easily monitor the operation through local presence on the field.

Fida’s supply chain consist of stakeholders such as donor, Fida, local partner, suppliers, local government who is overseeing the operation and controlling to operation, UN Clusters coordinating the distribution, other NGOs helping in distribution and finally the aid beneficiaries. As discussed previously, the type of procurement process and the form of humanitarian aid determine the supply chain structure.

Depending on what items we plan to give to people and then in the implementation depends on the project. (P1)

The more complex supply chain would involve the tendering process described earlier in the section 4.1.3. Local partner commonly stores the procured items, but sometimes the supplier will distribute the items to the distribution point, from which the local partner distributes the items to the aid beneficiaries. Moreover, this supply chain structure presents only the stakeholders that are directly involved within the supply chain as internal stakeholders. Next, the roles of each stakeholders within the supply chain are discussed in detail.

4.3.5 Role of the local partner

The results indicates that the local partners are commonly religious NGOs or humanitarian organizations from Christian networks. Fida has long traditions since 1950s to work with the partner churches in the missionary work and as Fida is owned by Finnish Pentecostal churches, one interviewee mentioned that it is only natural for Fida to choose its partners from the churches. However, these partners are required to have the capacity, capability and motivation to work within humanitarian aid according to the interviewees. For humanitarian operations, working in partnership model began in 1980s. The partnership commonly begins through the personal connections of people,
from there the partnership negotiation has taken place and finally partnership contract is signed.

According to interviewees, Fida’s local partner is perceived as equal partner, not as a supplier in the supply chain. One interviewee from Fida management highlighted that partnerships with local partners are the most valuable cooperation network for Fida. As described earlier, Fida’s local partner is responsible for logistics in both of their operations according to two interviewees.

Four interviewees described strengths in their local partner such as their local knowledge, their reputation and the local people can trust them. Through Fida’s local partners, Fida has also gained strong local knowledge and the role of the local partner is vital in the humanitarian crisis as their presence can help the beneficiaries very fast. Even tough, the local partners are in the crisis they are not affected by the crisis and can operate to help the affected people.

Another benefit from local partner mentioned by the interviewees is their knowledge of the local customs, knowledge of local bureaucracy in regards to humanitarian operations and their local presence after the humanitarian operation ends. For Fida, local partner is so called implementing partner and through their daily presence on the field, employees of Fida are able to communicate closer with the aid beneficiaries and monitor the operation.

Without actually listening to the community and without having a local partner that is daily there it would not be possible to monitor it so closely. (F3)

All four interviewees perceive that they have strong international partners who have capability to operate in the field and they have good knowledge of the needs of the beneficiaries.

I think they have a good sense of what the community really needs and what the beneficiaries want and...they create the ownership so they have kind of support system that continues even after we leave. (F2)

While Fida’s hierarchy might cause delay on cash transfer as discussed earlier, through local partner’s reputation and experience, they can purchase items on credit enabling the operation to keep its schedule despite of the delay on cash transfers.

Now, the strengths of the partner that we have, is that they were able because of their long-term involvement in these activities is that they were able to buy on credit. (F1)
On the Fida's humanitarian operation in Congo, the partnership with the current local partner started in 2008. The local partner has 12 staff members and 8 volunteers. The local partner appoints logistics team in the beginning of the operation. According to the local partner interviewee, due to the cuts on the funding, now one employee has two responsibilities, for instance the person in charge of field supervision is in charge also for logistics. The local partner has employees on the field and in the office.

According to the results there are differences in the local partners. The ones who are strong humanitarian organization has strong knowledge of the humanitarian operations, whereas the local partners who are religious NGOs might need education to operate in humanitarian field.

But they might not have been involved in this kind of humanitarian, so they would need education and...to do the work according to humanitarian principals so that they would learn the country’s coordination system and to find the meetings which they have to be involved. (F4)

Nevertheless, the experience on the humanitarian field depends on the organization and on the other Fida’s humanitarian operation in Iraq, the local partner is humanitarian organization with strong expertise about the humanitarian field:

It is a humanitarian and early recovery organization, from Holland, an international NGO... I know they have their own guidelines and policies for that and I personally know their staff and I’ve been to their warehouse. (F3)

Moreover, Fida has strict requirements for their humanitarian local partners. Fida has guidelines about the partnerships and before the partnership can start, the partnership agreement must be signed by the both parties.

We are to have a written agreement with the partners, that is the Fida’s philosophy. (F1)

However, the detailed list of requirements were not provided as data source for this research. Moreover, one interviewee stated that they do not have any tools to measure the partner as organization. Hence, the relationship is built on a mutual trust and common agreement.

4.3.6 Role of the donor

This section describes the governmental donor as one stakeholder within the supply chain according to interviewees. In total four interviewees discussed about the role of donor. According to the interviewees governmental donor is donating to the humanitarian operations through NGOs and UN organizations, they do not have own operations nor they donate directly to the humanitarian operations. Another mission for
governmental donor is to have political discussion with the financed NGOs to affect to the humanitarian operations the organizations operates. Now, Finland as governmental donor has six financed NGOs and largest amount of funding has always been UN organizations.

All three interviewees from donor stated that the donor applies principals from Good Humanitarian Donorship-initiative (GHD, 2018). Being good humanitarian donor is reflected in practice as Finland follows the guidelines in global humanitarian response plan in which the needs for the coming year is already published in previous year's December. The intention for the donor is to give most of the available funds in the first quarter of the year and Finland has relatively fast mechanism being able to fund operations within 24-hour notice.

According to the interviewees from donor, this donor does not believe in earmarking of the funding meaning that financed organizations can decide themselves where they want to put the money inside the operation. According to the interviewees, Ministry for Foreign Affairs of Finland is considered as more flexible donor compared to others due to relatively flexible funding process, not earmarking the operations and requiring relatively less reporting from the organizations.

If we consider what we require as Finland, one can say that we are quite loose donors that we require quite little reporting with slight control. (D3)

Interviewees perceive that donors have a lot of influential power towards measurement of humanitarian operations as they can decide the indicators for organizations to receive funding and the indicators for the reports especially considering cost-efficiency.

Donors can influence quite remarkably to performance measurement of the humanitarian operations especially considering result-orientation... we can affect to decision of what kind of indicators will be selected considering for instance how cost-efficiency is measured even to UN organization level. (D1)

Because of donors, NGOs are required to think about these things and measuring has become more and more important. (D3)

Donor interviewees discussed the reasons for the donor to strictly define the humanitarian aid. Commonly, donor finance certain countries with long-term commitment in development aid, whereas in humanitarian aid the scope of financed NGOs is broader covering many countries. Thus, development aid funding is considered to cover the preparedness stage and building the capacity of the country so that they can better assess humanitarian crises. However, this recognized problem relates more to the decision to prioritize funding due to the limited finances. The goal for donor in regards
to their funded humanitarian operations is that the humanitarian aid is needs-based, impartial and independent.

Three interviewees from donor discussed the challenges related to limited financial resources. As financial resources has been cut down by government during recent years, now the governmental donor is forced to prioritize the operations and sometimes even decline the funding to some operations due to decrease of their available funds. Limited financial resources affect to donor’s flexibility as the available funds are granted during the first half of the year and for later sudden disasters, there might not be available funds to give.

We would gladly grant more, but in most cases, the applications are good and we have no reason to grant the full funding, but we cannot grant the full funding because we do not have that much money. (D3)

One interviewee mentioned about the challenge if donor would support the local governments financially without NGOs: monitoring the operations would be much more demanding due to different standards and metrics applied in different countries. Now, UN organizations are conducting the monitoring and performance measurement metrics for the donors.

Another critical challenge related to the performance measurement is the availability of reasonable data for the donor. Donor does not receive enough comparable information about organizations cost-efficiency and how the organizations could improve their cost-efficiency, so measuring and comparing organizations becomes challenging.

In prolonged conflicts the needs becomes greater and commonly donors become tired about the prolonged situation and they do not see the progress as the humanitarian aid has not made the conflict to disappear. One interviewee discussed this donor fatigue becoming a problem, as donors are more interested in crisis like Syria in which the effectiveness of the aid is directly visible.

And countries like DRC, it has taken a lot of time like...the donor fatigue is something that people talk about that they don’t see the progress of the country even tough there has been a lot of help. (F2)

Thus, finding indicators to express the true impact of the humanitarian aid becomes inevitable for the sake of affected people in prolonged conflict to ensure aid for them.

According to the results, the organizations receiving governmental funding from the donor must have ECHO certificate from European Civil Protection and Humanitarian
aid Operations. The ECHO screening process is thorough process in which EU evaluates the organizations financial capabilities, risk management, auditing processes and other capabilities such as professionalism in humanitarian operations. When organizations have done the ECHO screening, they are able to receive also financial aid from EU. According to two donor interviewees, donor trust the ECHO screening process, so the donor does not evaluate their financed organizations separately as an organization before the funding.

This ECHO certificate criteria is very very important, without it we do not give finances. ECHO screening is a sign that the organization has enough capabilities. Ourselves, we do not have enough staff so that we could screen every organization every time funding is required in that sort of depth as in ECHO screening. (D1)

As the financed NGOs have gone through the ECHO screening process, the donor trust that the organizations are doing humanitarian aid in professional manner. Donor also require the funded NGOs to participate to UN Cluster’s coordination meetings in local level. Moreover, the financed organizations have to explain how they are part of the overall humanitarian operation and why and how they have chosen the specific area or form of aid to work in.

Donor has several requirements for their financed NGOŠ. The donor guidelines request that the organization receiving funding should have evidential record of providing efficient humanitarian aid in the past (KEO-70, 2015). For the sudden onsets, the organization must be already present in the country and the funding is granted in relation to organization’s capacity (KEO-70, 2015). According to the guidelines, different organizations are funded in the same area, if the organizations can justify their operation and to avoid doing the same activities than other organizations funded in the area (KEO-70, 2015).

According to the interviewees, the donor evaluates all the applications according to their professionality and based on the organization’s expertise in the country. First, the donor base the funding decision on the capabilities of UN and then if UN cannot assist the areas, then they will provide funding to NGOs who could better assist in the certain area.

We are looking for complementary and this is sort of a puzzle this division of finances where we look the existing needs in each country and assessing the most important sectors as the needs for the sectors differs. (D3)

### 4.3.7 Role of non-governmental organizations and UN cluster

In total, all three interviewees from donor discussed the role of NGOs in global humanitarian supply chain. All three stated that NGOs have vital role in delivering
humanitarian aid as without NGOs the humanitarian aid could not be delivered. One interviewee mentioned that 80% out of the humanitarian aid is delivered by NGOs. Other interviewee stated that delivering humanitarian aid is the responsibility of the NGOs. Third interviewee highlighted NGOs roles to cover operations which UN organizations had left areas without humanitarian aid. Same interviewee stated that through NGOs the donor is able to contribute in building the bridge between humanitarian aid and development aid. NGOs are perceived more as collaborative partners rather than downstream members of the supply chain according to donor.

Delivering humanitarian aid is the responsibility of the NGOs. (D1)

NGOs are in very important role to deliver aid as they are partners from donor’s perspective and they carry out most of the UN funds. In principal, without NGOs humanitarian aid could not be delivered. (D3)

From donor’s perspective, UN organizations are very important and they are prioritized by funding the as they coordinate global humanitarian operations. UN organizations are important as they deliver standardized and detailed data for monitoring and due to their capabilities and operations to strengthen humanitarian community such as WFP's role to strengthen global humanitarian logistics. One interviewee described that in some situations when the final aid delivery point is hard to reach, the donor notifies the NGO that the aid might be more cost-efficient to deliver through UN organizations. UN Clusters have the key role to coordinate the logistics in humanitarian operations and to monitor the operations in local level according to the interviewees and their role is presented in section 4.5.4. in more detail.

According to the interviewees from donor, each NGO should have their focus area determined within their strategy. Another issue with the strategy was that NGOs tend to prioritize their operations either based on their target group of people or then according to cost-efficiency. For instance, Plan was the only on working in the area in Ethiopia, because other NGOs considered the area too expensive to work on. However, one interviewee viewed strategies as more political documents rather than actual implementation plans of the operations involving indicators or program descriptions. Nevertheless, the same interviewee mentioned that larger humanitarian organizations have clear strategy to save costs compared to smaller NGOs.

4.3.8 Role of local government

According to the interviewees, local government is supervising and governing humanitarian operations within the country with the help from UN Clusters. Especially
in the refugee camps, local authorities are present to govern and control the humanitarian operations. According to the interviewees, local government is commonly giving the right for the organization to be part of the humanitarian operation and the humanitarian operation begins by meeting with the representatives of local government to discuss the plan for humanitarian assistance. Furthermore, the results indicate that local government has critical role through governing local regulations that affect to humanitarian operations and its logistics remarkably.

While interviewees discussed the solution to reduce the need for humanitarian aid through improved social security systems, interviewees viewed, that local government could be the barrier itself to the improved social security systems as the governments are commonly corrupted.

4.3.9 Role of aid beneficiaries and their involvement

In this section, the involvement of the beneficiaries according to the interviewees will be presented and their role in humanitarian operations. As described earlier in the humanitarian operations section, interviewees perceive beneficiaries as the starting point of the operations as the key stakeholders of the operations and they should be involved from the beginning of the operation.

You cannot do humanitarian assistance without consulting the people that kind of humanitarian operations cannot exist. (D1)

Eight interviewees described how beneficiaries are involved to the operations, in total 70 times. One interviewee from donor mentioned how the discussion in global humanitarian community has been ongoing during past five years how to integrate beneficiaries to influence to the quality and form of the aid. This discussion is called accountability to affected people and the aim is to find out how the affected people could better influence to the humanitarian aid. One way to approach this is tailoring the humanitarian aid more towards the needs of the beneficiaries:

I want to emphasize the role of the beneficiaries and their needs and how we could more in the future to tailor responses accordingly. (D1)

Two interviewees discussed how the change towards cash-based assistance is another way to transform the aid in order for the beneficiaries to affect what kind of aid they are given as they can purchase the items themselves. According to the interviewees, the cash-based assistance is changing towards mobile payments as beneficiaries could then purchase items from markets by mobile phone and they would be given sim cards, which
have the value to buy the items. This change is enhancing the independency of the beneficiaries and their dignity according to the interviewee.

One example of this is how beneficiaries have been involved is that the aid has changed from providing food to giving cash and from cash to more mobile payments... so this is the way to increase the independency and dignity of the beneficiaries. (D2)

In addition, one interviewee discussed how local procurement is critical from beneficiaries' point of view as it stimulates the local economy. Another way to give influential power to beneficiaries is to include them as active part of the humanitarian operation by involving them through livelihood aid such as involving them to agriculture or through farming according to one interviewee.

Interviewees mentioned that Fida tries to include beneficiaries as much as possible starting from the needs assessment. In the community work, one interviewee emphasized several times how important it is to build good relationships with the local communities and the beneficiaries. Through good relationships, monitoring the operations becomes easier as the village leaders can help conducting the needs assessment as they have the best knowledge of the needs of the people in the village. Good relationships with the beneficiaries helps to avoid biases in collecting the information about the needs of the beneficiaries, because when the aid employees have real relationships with the beneficiaries, then the beneficiaries truly tell their needs.

It is really like process of building relationship...and that’s when you can be sure that monitoring will actually have like correct results....Otherwise, when they don’t know you they just start saying we need a laptop, we need a printer, we need this, we need that is like they are talking to santa claus. (F3)

Two interviewees discussed that another way to include beneficiaries to the humanitarian operations is to include them as employees in the operations. Fida has involved the most capable and least affected people as part of their operations, because then the people would gain job and income.

But anyways so that is another way to involve the beneficiaries is like to choose the ones that are the most, you know the most capacity and ability and they can be part of the humanitarian operation. so we have the safe space, like psychiatrists and psychologist... (F3)

Fida also intends to build the communities and the societies as much as they can in the limitations of the lifesaving aspect of the humanitarian aid:

I do think that at least we give them hope for the future or better future. And also some tools for it. Its just not like we give them water and that’s it. But we also try to build them, the sustainability and the local ownership of the community. (F2)
According to three interviewees, Fida tries to listen to the beneficiaries as much as possible through post-distribution evaluations conducted after relief items are delivered. However, according to one interviewee and evaluators, Fida could improve its feedback systems to better address and include the beneficiaries in tailoring the aid. Fida’s feedback systems will be more discussed in the 4.5.4 section.

However, one interviewee addressed the problem of involving very traumatized people to feedback systems as these people does not see the hope of the future, hence, they are not able to give any feedback.

*People are in a state of apathy and they are in state of like hopelessness. And when you are in that kind of state, people there are just like very depressed and very like unable to give, like given input in a way. (F3)*

Even tough, donor view that aid beneficiaries are in the central of the operations and their needs should be truly listened, one conflict arose from the interviews with the interest of the donor and the needs of the beneficiaries. In one case, Fida tried to add vulnerable children’s mothers to one of their operations, but the donor declined the aspect, as they viewed that Fida should focus on only two aspects. Thus, limited financial resources affect to the process to tailor the humanitarian aid and how the beneficiaries could be better involved as active part of the supply chain, as the needs are higher than the financial resources of the donor.

*The government as well as Fida constantly wants us to be on move. The last evaluation we had is that they said that we work too long in one place Even tough, there are refugees there...they constantly telling us no, you cannot work in the same place go to somewhere else. The needs are great and our resources are very limited, so you know... (F1)*

Furthermore, the needs of the beneficiaries could be more involved. One of the questions asked in the survey asked about the most important assistance from beneficiary perspective. The results are that 12 answered only education, 1 answered sewing machine, 1 answered drawing, 3 education and pss, 1 pss, one left blank. This is supported in the life stories, as there beneficiaries are hoping for more education in the future.

*The biggest need for children are activities like these and for education to start again. They need support in mental health and activities to relief themselves. Our operation cannot meet the needs of the community. (ZOA, 2017)*

In fact, in another Fida’s operation, one of the interviewees described how the local governmental authorities wanted education for the children and for the operations to pay school fees. According to the interviewee, this caught them by surprise.
We asked them (local officials) to give us list of the ten biggest needs that they have and number one thing what was school fees, which sort of caught us by surprise. They want their kids to go to school. (F1)

This findings are supported by the survey, as the eight question in the survey investigated what kind of ideas the beneficiaries have for the future of the operation. Only the 10 women respondent to the question as following: 2 asked for first aid course, 2 asked for a new sewing course, 2 asked for more higher level of education, 1 for education for kids, 1 for working opportunity, 1 for medical support, 1 for cooking course. Thus, one of the biggest needs for the future are education in the Fida’s humanitarian operations.

4.3.10 Relationships between stakeholders

In this section, the relationships between the supply chain members are addressed in light of the stakeholder network theory to analyse the density of the supply chain. The results indicate that the relationship between the governmental donor and Fida is active, informal through email and very open and honest. The donor views its financed NGOs more as partners rather than downstream members of the supply chain and the donor do not want to have hierarchical border fences between the NGOs and the donor.

According to the results, the shorter supply chain is perceived as more effective way to deliver the aid truly to the beneficiaries due to less members benefitting from the chain. The results indicate that trust plays critical role in the supply chain performance as well as knowing the members of the supply chain.

More we know members of this chain, the aid becomes more effective and you can be certain that it is more reliable. (F4)

The results indicate that Fida’s supply chain is viewed relatively small and their aid is quite efficient compared to other organizations. However, one interviewee shared a different view as

Even tough, I think the MFAF is quite flexible, but then sometimes it is the whole chain even for Fida, so it is the whole chain so it is not so easy and fast. (F2)

From Fida’s finances, 81% goes to the overseas operations to development aid, humanitarian aid and missionary work (Fida, 2017), whereas from UFF only 23% of their finances goes to development aid (UFF, 2016). The advantage of Fida’s supply chain structure is due to close relationships with local partner and local collaboration, as their employees are locally present in the operation working together with the local partner.
With this scale and scope of the operations and in the kind of activities that we have, we can see ourselves and be more certain where the money goes as we are directly work with the beneficiaries. (F4)

Interviewees described that Fida has long history and long lasting relationships with its local partners. As mentioned briefly earlier, Fida perceives its local partners as equal partners through who they want to work in their operations as described in section 4.3.5. The relationship between Fida and local partner is perceived as good and close relationship.

The partnership has been really great. Like somehow we are very equal partnership and discussions are very nice and the relationship is warm and it feels good. (F3)

According to the interviewees, the local partner has quite close relationships with the suppliers as they know their suppliers and suppliers trust the local partner even with buying items on credit as described previously in section 4.3.5.

With the beneficiaries, Fida and the local partner have close relationships as some of the beneficiaries are working in Fida’s operations and due to local partner’s local presence in the communities. Local partner discusses with the beneficiaries in their local language and the beneficiaries recognizes the aid employees.

4.4 Content: evaluation criteria applied

This section describes the evaluation criteria used to measure humanitarian operations starting from overall metrics of the operations and describing the logistical metrics for the operations. For this section, interviews and internal reports from Fida’s operations are used as main data sources and findings from survey were used as supportive data.

4.4.1 Evaluation measures for overall operations

Humanitarian operations have to follow Sphere standards in their monitoring as discussed earlier. Besides, the Sphere standards, the organizations needs to follow their own guidelines, the partner’s guidelines, donor’s guidelines and local authorities requirements for the humanitarian aid.

Standardized model is the sphere standards. the sphere standards are ones that lay the foundation to any standardized thing. (F1)

According to the interviewee from local partner, their guidelines and performance measurement indicators comes from the international Code of Conduct for humanitarian aid. Despite of the complexity of the different guidelines, these guidelines are not too
different from each other as Sphere standards are the foundation for all humanitarian work and the other guidelines have been adjusted accordingly.

They (local partner) have their own guidelines, which is based on these general ones that we have. (F3)

Besides guidelines, UN Clusters and local governmental authorities are monitoring operations and they share similar interest towards the indicators of the humanitarian operation. Their indicators are the location of the humanitarian aid, information about the beneficiaries who will receive the aid and the form of humanitarian assistance. For the relief items, the indicators are their quantity, quality and description of the purpose of the item.

As explained earlier, the donor is very keen on addressing the complementary actions of the humanitarian operations. In the final reports, Fida specifically describes the how the operations are complementing to the international humanitarian response and how the strategy of the operations are in accordance with provided information of the humanitarian situation and how psychosocial well-being and improving livelihoods of people have been addressed during the operations. Thus, Fida is following the guidelines of the donor.

In the final report, the achieved objectives are described by the number of households helped, number of items distributed and by the vulnerability groups that how many women, children and people with disabilities were helped. The final report is attached to this thesis as appendix 4. Interviewees also mentioned that the operations are measured by the number of people reached, number of items distributed and how the objectives of the operations were achieved and how challenges were conquered.

The descriptive final report required from the NGOs includes information on how many beneficiaries the operation reached, how did the operation succeed and what were the challenges and how the coordination were addressed and what was the organizations role... but we are not measuring the operations in-depth. (D3)

Besides descriptive final report, NGOs are required to provide financial report including detailed information about used finances and that the operation has been conducted in accordance to competition regulation in public procurement. For the financial report, external auditor audits the financial report.

Due to outcome of the latest elections in Finland, now the donor is required to measure cost per beneficiary as indicator for humanitarian operation. In addition, donor is very interested in knowing how many people their aid has reached in a year. In Fida’s reports,
the results are disaggregated to gender, age and vulnerability groups. In the reports, Fida clearly addresses how they have involved the vulnerable groups successfully to the operations. Thus, this output type of indicators such as how many people the aid has reached is one of the main indicators describing the success of the operations.

Considering the beneficiary involvement to the operations, in the final report one question addresses the accountability of the beneficiaries. For this question, the responses commonly included principals from the Sphere standards and actions accordingly. However, the answers lacked the detailed information on the number of beneficiaries involved in the operation and how they were involved. From local partner’s view, they are accountable both to the donors and to the beneficiaries as donor paid the assistance and the operation’s success is based on the beneficiaries’ view on how the operation managed to fill their needs.

According to both interviewees from donor and Fida, ideally the metrics in humanitarian operations would measure the impact of the operations to the beneficiaries’ lives such as indicators of decreased level of undernourishment or reporting on mortality rates. Global humanitarian community is also interested in discovering the effectiveness of the aid according to the interviewees. Nevertheless, the results falls into output type of indicators such as the amount of women, men, girls and boys received aid and the amount of items distributed.

But we know it is very difficult to present these kind of indicators. So often humanitarian aid ends up using these output type of indicators like how many items have been distributed, what items and to how many people. (D1)

The impact of humanitarian assistance were perceived as a difference in beneficiaries lives according to two interviewees. They describe the change as the traumatized children would laugh again and people would again have hope for the future.

If you can make a difference for the children so that they can start playing again or laughing again or having some sort of hope for the future, I think that is a big thing and will change their lives. (F2)

Another interviewee described the impact of the operation to the beneficiaries’ lives as they received job. In this case, the change is that the beneficiaries receive income and livelihood. According to the results, the operation in Iraq has had great impact on beneficiaries’ lives as traumatized children has started to play or speak again.

The kids for the first two weeks they would be afraid of any noise, they won’t play, they would just be quiet and scared. But after two weeks, they come out of their shelves and they start playing, they start liking music. So really like this activities that we have there, they help them. (F3)
One of Fida’s local partners send qualitative document describing one of Fida’s operation and describing the stories from beneficiaries’ lives and the change in their lives from the beginning of the operation. The life stories from one of the Fida’s operation confirms these findings as many times beneficiaries express how the children, who received humanitarian aid from Fida, have started to express themselves, playing and smiling again. In the life stories, there are several stories about children who started to play again after attending to Fida’s operation.

The kid did not interact with other children, was not smiling at all and didn’t want to hold a pen. Now, the kid is getting much better, the kid is communicating with other children and wants to try to write things. (ZOA 2017)

Another change according to the life stories, one beneficiary expressed as through employment to the humanitarian operation, the beneficiary has started to dream of studying again:

Because of this opportunity to work in the centre, my ambition revived again. I also want to go back to my studies. (ZOA, 2017)

In the survey, the fourth question asked the respondents to describe the change in their lives after the humanitarian operation. According to the results, four respondent said that the operation gave them joy, seven said that the operation gave them education, three said that the psychosocial support was important. One respondent said that know she knows how to help her family and husband, while another described that through Fida’s operation, her dream to lean sewing became true. One respondent said learning drawing was a change and another said that the operation gave different experience from traditional school. Another respondent described that the respondent’s life is improved because of the operation.

My life is improved. (Respondent 15)

They gave me hope for the future and better education. (Respondent 3)

4.4.2 Evaluation indicators for logistics

Five interviewees described the measurement indicators used for logistics. According to the interviewees, the indicators are defined in the guidelines and the Sphere standards are the minimum requirement that Fida is following while measuring their logistics. Especially the quality indicators of the relief items are coming from the international standards according to the interviewees. In fact, the interviewees mentioned quality as a criteria for relief items by 16 times.
According to the local partner interviewee, who is responsible for logistics, the local partner is following their own guidelines and Fida’s guidelines. In their own guidelines, they have standards for instance to quality of the supplier. The quality indicators for supplier requires the supplier to have physical address in the area and they should be recognized as an official trader in the area. The purchase requisite form included indicators such as description of the item, unit price, total price and imputation of the item. Even tough, the post distribution evaluation forms were shared with the researcher, these documents did not include indicators for logistics.

According to the interviewees, the Sphere standards set the requirement for the humanitarian agencies to prefer local procurement. Local procurement is in the interest of the donor too due to environmental and economic reasons.

Our hope is that procurement would be local as much as possible, because if we look at climate and environmental perspectives, there is less transportation emissions and less cost of transportation. (D3)

On the other hand, the procurement decisions are sometimes more complex, as the NGOs should consider both quality and the delivery time. Sometimes, international suppliers can provide items with longer lasting quality and NGOs need to measure which way is the best for them.

You can order the cheapest plastic version, which would be available locally, but it will only last for certain years and you need to change it afterwards. Or then you can order fiberglass version through international suppliers, but the delivery will take 3 months, but it will last longer. Then you need to measure and consider which procurement method is the smartest. (D3)

Moreover, another interviewee described the problems with quality of the relief items procured from local suppliers. There was a case that Fida procured sickles for cutting grass from their known supplier and the delivered sickles were in very bad quality. Finally, the supplier replaced the bad quality ones with new ones and explained the situation as following statement from the transcribed interview describes.

They were extremely bad quality. So the supplier then told us later on about it the samples that they have received from their suppliers was different from the ones they actually delivered. (F1)

However, in this case, Fida had already distributed the bad quality ones and they had additional set of relief items that they could not distribute again to same people. From risk management perspective, the supplier agreement should include punishment for the supplier if they are not able to provide the items with the agreed criteria.

For the products, the local partner has certain quality criteria for acceptable condition of the relief items determined also in Sphere standards. The acceptable quality criteria
includes the quality of the product, the price and the expiration day. However, the indicator selection varies, depending on the situation and the indicator selection process were not described in detail during the interviews.

Sometimes we consider the price as the indicator of selection and sometimes we consider the quality. (P1)

The results from the interviews indicate that in Fida’s supply chain, the main indicators in measuring logistics is the quality of the products and the price and these are operational level measurement metrics. Besides these indicators, local partner uses time as indicator referring to delivery time of the relief items as this affects to how fast the aid can be delivered. Moreover, the local partner is measuring the risks in the operations in regards to the logistics. These risks are measured as descriptions of the challenges for the operational staff and the challenges that could bring negative impact to beneficiaries lives. However, these indicators are not shared with the donor as the final report has only one question in regards to logistics:

How the procurement and distribution strategy for the relief items and/or services was implemented? (Appendix 4)

The answers for this questions commonly included descriptions about the changes if that happened or descriptions how procurement was done locally according to Sphere standards. Besides, metrics to measure other logistical activities such as transportation or warehousing were not shared with the researcher.

Despite of the lack of the provided indicators, the results from the interviews indicate that effectiveness and efficiency are key indicators to measure performance of humanitarian supply chain. According to local partner interviewee, effectiveness refers to how fast the supply chain can distribute aid to affected people and efficiency in terms of how cost-efficiently the supply chain can deliver the aid to the affected people.

Effectiveness in terms of how many time everything is done from this stage to this stage, from the store up to reaching beneficiaries, saving time. And for the second objective, we measure... the logistical operations in terms of how much cost are saved, in order to reach many people. (P1)

Nevertheless, the detailed documentation of the logistics is not shared with Fida in English, thus, more detailed indicators about logistics activities were not provided for the researcher. Even tough, there are documentations about the suppliers and procurement, but it is in local language or the documentation is not shared between the supply chain members.
4.4.3 Challenges in developing global standards

As described, several guidelines are used as reference for metrics that are applied to measure performance. The results indicate that global humanitarian community has worked enormously towards developing global standards to measure humanitarian operations and one example of this is the Good Humanitarian Donorship-initiative. However, one interviewee described several barriers hindering the global humanitarian community to establish transparent, simple and applicable standardized measurement system.

Firstly, one barrier has been the problem with flexible funding that enables the use of the cash whenever needed. Now, the cash transfers in the global humanitarian supply chain have not been fast enough to reach the UN organizations in time to operations.

We need to understand that considering developing global standards, the payments have to be made early enough and fast to the UN organizations. (D2)

Secondly, transparency plays a critical role, as now organizations are more efficient and transparent. Finally, the problem has not been lack of discussion within the global humanitarian forums and the donors. Rather the problems lies in a practical level how to synchronize the results and performance measurement metrics.

The biggest problem is that everything should be more synchronized, considering the results too. (D2)

4.5 Process

The aim of this research is to explore the current practices of the performance measurement process within this humanitarian supply chain. As some processes are already described in the thesis, this section focuses on the performance measurement aspect of these processes. The figure 9 presents the different steps regarding performance measurement.
As the Figure 9 presents, the humanitarian operations begin with the needs assessment following planning and applying for funding. After the Fida receives funding, they start to plan for procurement and distribution of the relief items. Distribution is followed by post distribution assessment obligatory for any humanitarian operation as Sphere standards require and finally at the end of the operation the report has to be conducted and sent to donor. The donor only receives the application for funding and final report about the progress of the operations. However, donor conduct overall evaluations from their financed organizations about their operations. Besides, donors visit their funded operations as a global effort and Finland as a donor intends to visit their funded NGOs once a year.

According to the interviewees, all the final report formats, used in Fida’s operations are standardized formats from the donor. Fida does not have their own formats to report and monitor their overall objectives of the operations, but they do have own formats for annual reporting, which is not conducted often. According to the interviewees, as local partner is responsible for the logistics in Fida’s operations, they are also responsible to measure the logistics. According to local partner interviewee, each logistics activity is detailed documented.

Every stage of this (logistics) there are documentation of the procedure. (P1)

Supporting the local partner interviewee, one interviewee from Fida stated too that each stage in logistics is documented.

The whole procedure is documented. (F1)

Therefore, the local partner has its own documentation methods that are used in the operations as well. Next, each of these steps will be presented specifically focusing on the performance measurement process, tools used in the process and stakeholders involved in each step.

### 4.5.1 Needs assessment

According to Sphere standards, the humanitarian NGOs are required to conduct first immediate needs assessment through available data of the crisis (Sphere, 2015). The second needs assessment is called rapid needs assessment that is conducted in more depth (Sphere, 2015). In Fida’s case, the local partner is responsible for the needs assessment on the field due to their local knowledge of the people and customs. Nevertheless, one of Fida’s employee who is locally working in the operational country is
commonly working with the local partner in the needs assessment phase and throughout the monitoring and reporting. Both of these employees are the project coordinators from each party.

I have done the needs assessment with them and been monitoring with them. (P3)

In Fida's community work, Fida and local partner works closely with the local village leaders while conducting needs assessment. Firstly, Fida and local partner needs to build relationships with the village leaders. Thus, they work very closely with the communities including beneficiaries as part of the operations from the beginning of the operation in the work with the villages. Village leaders possess great knowledge about their people, so they are able to communicate to Fida and its local partner about the people. The local partner is responsible with Fida to collect needs assessment and in the villages, the local partner conducts the needs assessments as door-to-door interviews.

They collected family size, they knew exactly how many people were in the community and who is the head of the household if there is disabled people there and so forth. (F3)

In the refugee camp setting, Fida and its local partner conduct together the needs assessment. First, they discuss the needs with the local authorities. Then they are required to participate to UN Cluster’s coordinated operational assessment and become part of the coordination under the UN Clusters as they monitor and control the humanitarian operations in the refugee camps. According to the local partner interviewee, in the first assessment someone from the logistics team should be involved to estimate logistical constrains of the operations.

So that he can already identify logistics constraints in the involvement of the disaster and from there the logistics are involved. (P1)

In the needs assessment, the forms used to identify the needs are determined in the Sphere standards and these qualifications are followed. However, the forms for needs assessment were not shared with the researcher so detailed indicators and measurement could not be included for analysis.

4.5.2 Planning and funding process

The results indicate that the planning for the operations starts straight after needs assessment. The format used to apply for funding from Finnish government is attached as appendices 3. In the planning phase, several stakeholders are involved. In the field, the both Fida's employees and local partner employees contribute to the planning of the operations. After the local partner coordinator and Fida’s coordinator have conducted
the plan for the operation in the field, Fida’s employees monitors the plan and send it to the donor. During the planning, donor and Fida is communicating closely with each other as donor wants to ensure open and transparent communication.

We discuss with them about how can we operate the best and how they can use our money the best. (D3)

When the application for funding reach the donor before middle of January each year, then donor consults different specialists from different fields such as embassies in the operational countries in order to find out accurate information from the local expertise. In addition, donor reviews the application in collaboration with other expertise such as specialists from WFP to discuss how operational the application is. The donor intends to gather as perspectives and comments from broad set of expertise and then the whole department of humanitarian assistance will decide on the funding decision based on the broad perspectives of expertise.

Employees from the donor send the application for approval to the Minister by the end of February and the decisions on governmental funding will be received by end of March. In the decision of funding, the donor states clearly the reasons for the decisions due to legal reasons. The NGOs have the right to complain about the decisions of funding. In humanitarian sector, these complaints comes very rarely compared to development aid, but once Fida had made a request to adjustment of the funding decision. When the request for adjustment arrives to the donor, the donor sent the request to the legal department to ensure legal decision-making considering governmental funding. Then the NGOs will receive the decision of their request for adjustment and they are required to make a new budget for the operation to match the decided funding. After NGOs receives the decision of their funding application, they start the operation with the procurement. However, if there are any changes in regards to budget and use of the funded money, then the NGOs are required to clear the change with the donor. The clearing commonly is communicated by email.

4.5.3 Procurement

According to one interviewee from Fida, all the stages in procurement is documented. The local partner interviewee described that they do not have any IT systems to measure logistics, but all the documents are in paper forms except the person responsible for their storage has mobile application to document the stored items.
Due to Act on Public Contracts, Fida has to apply two types of procurement methods as described earlier. In the tendering process, Fida needs to receive at least three invoices from different suppliers before progressing in the tendering process.

One of the things is that they have to have three written quotations for any procurement that they are making over for certain amount of money. (F1)

Before the procurement process begins, the logistics team determines the terms for the suppliers to deliver the relief items and the terms are then documented in paper form. This document is then used as reference throughout the selection process and the operation. In this document, the logistics team decides on the amount of suppliers, the condition and descriptions of the relief items and the time and place for procurement.

Then they define how many selection, how many providers are needed in the work for what, what is going to be done and at what time. (P1)

The procurement begins with the publishing the tender, then they need to receive at least three quotations of different suppliers. The logistics team then has to decide on the suppliers based on the quality criteria described in the previous chapter. After selecting the supplier, the team has to visit the facilities of the supplier to confirm their capability and right to operate as a supplier. When the team has chosen the suitable suppliers, they have to report it to the project coordinator of the local partner who forwards the report to local partner’s overseeing authority.

For procurement and monitoring the purchased items, local partner uses a form called “Purchase requisite form”. According to the interviewee, the logistics team has two different forms for procured items. In the first one, they determine the indicators for the items such as price, quality and description of the items and in the second format when the procured items are deliver, the team uses second format as checklist to monitor items by decided indicators.

Depending on the supply chain structure, sometimes the supplier will deliver the items to local partner’s storage room or in other situations directly to the distribution point. When the items are delivered, one person from local partner’s logistics team will monitor the delivered items based on their quality. Before accepting the items, the local partner has the right to decline the delivered items based on their quality. The problems with disapproving the items will be discussed later.

The local partner interviewee described that they use a mobile application to monitor and control the amount of items purchased and delivered to their storage. However, the
first tool described is the purchase requisite form including information about the quantity, price and description of the items.

We have someone in charge of the components that one will have tools to receive from the provider all the requested items. They sign both on their phonebooks, the items are stored and then someone is the storekeeper. The storekeeper also receives indicate on his phone that I received. I stored that kind of items, which quantity of items. (P1)

Local partner is also responsible for the logistics and procurement for other Fida’s operation. According to the interviewee who were involved in that operation, the local partner also documents each step of the operation and they have strict procedure and policies for logistics. In this case, the logistical documents were shared with Fida employee, but were not shared with the researcher.

The process and methods to measure other logistical activities such as warehousing or information about the transportation were not shared with the researcher. In addition, other more detailed forms and tools to measure performance were not shared with the researcher. Hence, these could not be included for this analysis.

4.5.4 Distribution of relief items and post-distribution evaluation

Due to two different operational environments (refugee camps and communities), Fida has different methods to distribute the relief items. In refugee camp setting, the UN Clusters are responsible for coordination of the operations. This has great effect in practice as in refugee camps the humanitarian organizations are given the names of the beneficiaries who are registered to the camps and are eligible to receive aid. Furthermore, in the refugee camp distribution, the UN Clusters monitor and control the distribution. For the local partner this means that they need to provide detailed documentation of the relief items during the distribution to the UN Cluster. Moreover, Fida and the local partner is required to participate UN Cluster’s weekly meetings in which they provide the necessary information.

On the other hand, in the community work, Fida aims at targeting the distribution close to their other activities such as to the location where they provide psychosocial support. One way to distribute items in community work is door-to-door distribution in which local partner distributes the items to the doors of beneficiaries. During the distributions in the community, monitoring of the beneficiaries is not as strict as it is refugee camp setting according to the interviewees. However, the local partner is responsible for addressing the needs of the community.
After the distribution, there are several methods utilized in post distribution evaluation. The data gathered from post distribution evaluation is documented in paper form. In the refugee camp settings, the post distribution evaluations are conducted by interviews, regular meetings with the beneficiaries and through feedback box located to open and safe space for the beneficiaries to reach.

According to the local partner interviewee, they have three objectives for the post-distribution evaluations. Firstly, they aim at finding out whether the distribution followed the initial plan. Secondly, they collect information about how beneficiaries have used the provided relief items. Thirdly, they conduct risk management as they collect information about the challenges that happened during the distribution and how these challenges could be prevented in the future.

These findings from the interviews relating to the objectives measured in the post distribution evaluation is confirmed by the analysis of the post distribution evaluation forms. In the evaluation forms, information regarding the use of the provided items were asked and how beneficiaries are informed and which channels of communications were used to inform beneficiaries about the distribution.

4.5.5 Evaluation after the operation

In the beginning, final report is conducted in the field in collaboration with Fida and the local partner. However, according to one interviewee, Fida could improve the collaboration with the local partner in the field.

So even tough, the partner would report, in someways we could do it more in cooperation with them. (F2)

After the report has been conducted in the field in collaboration with the local partner, Fida employees send the final report to adjustment and approval to the head office in Finland. From the head office, the final report is sent to the donor. In one of the Fida’s operation, Fida receives weekly reports from the local partner how the beneficiaries are doing in the communities and the lifestories-document described earlier.

According to donor interviewees and their guidelines, the NGOs should conduct evaluation of their project annually. However, due to decrease of funding, Fida does not conduct the external evaluations annually anymore. Thus, the final report of their operations are the main source for the achieved objectives of the operations.
If NGOs cannot spend all the granted budgets during one year to the operations, then they can ask for the permission from the donor to transfer the money to next year’s operations. For these cases, the donor is very understanding, as they understand the unpredictable nature of the field.

When there are arguable reasons we can extend the executive time of the operation and the NGOs just need to send an email and we approve or disapprove the request. (D1)

If the NGOs want to use the money to another operation, they are required to send new application to the donor for the use of the available funds.

4.5.6 Challenges to measure performance

Eight interviewees described challenges related to measuring humanitarian operations. One of the issues raised in the interviews is the problems related to cost-efficiency as a measurement metric in humanitarian operations. The new requirement to measure cost per beneficiary metric is viewed problematic amongst specialist, as the humanitarian operations cannot be compared by their cost. This is as some operations might be more expensive, yet as valuable for the beneficiaries.

It is not very comparable to look at a dwell, which is drilled and from the dwell 40 000 people can benefit compared to psychosocial support given in a center that naturally requires more labor force and individual help. In this psychosocial support the cost per beneficiary can be 340 euros compared to the dwell that is one to two euros per beneficiary. (D3)

Supporting this view another interviewee discussed the same problem in different context: last mile delivery. While some NGOs prefer cost-efficiency as their main indicator, some organizations value to serve the beneficiaries where other would not due to the cost. Thus, measuring organizations by their cost-efficiency is very challenging in humanitarian operations.

In different situations, estimating costs are very difficult... These are the questions we do ask, but we have difficult time to answer that how to compare these countries and organizations. (D1)

Thus, performance measurement is perceived as challenging task. Especially measuring coordination is perceived very difficult due to the nature of the coordination. Moreover, donor interviewees discussed that for them measuring and comparing organizations and their logistics is very difficult, as they do not have any evidence of the measured performance of the logistics activities.

How do you measure coordination service? But we do not have evidence on the logistics, whether there has been specific challenges. (D2)
Moreover, impact of the operation is perceived as another challenging indicator. One interviewee described two reasons why measuring impact is difficult in humanitarian operations. Firstly, time is limiting the measurement as the operations last only for a year. Secondly, there is a lack of indicators for impact from the relief items such as non-food items.

How can you measure the impact of things like non-food items, it is difficult to evaluate and measure... measuring impact is very very difficult. (F1)

In Fida’s operations, the local partner interviewee described several challenges related to performance measurement of the logistics. First challenge is the attitude of the local partner’s employees towards measurement. They feel uncomfortable when they are questioned about their tasks; they feel like the evaluator does not trust them.

Those staff who are involved in logistics, they don’t really feel comfortable when you intervene and start measuring everything that has been done and some of them say, you don’t believe me? (P1)

Second challenge in measuring logistics is the quality control. Due to long distances, it can be very time consuming, expensive and difficult for the suppliers to replace some bad quality items. According to the local partner, these are the issues they need to consider while approving or disapproving items.

The donor’s evaluation suggest Fida to improve its feedback systems in a refugee camp setting specifically the feedback box. Two interviewees described the same that they should improve the feedback systems in a refugee camps. One interviewee mentioned that the problem with the feedback box is that whoever can write whatever as a feedback. Thus, the field staff might receive wrong feedback especially when there might be problems between the staff members.

Another problem according to the interviewees is the lack of professionalism with reporting in the field, since the report has commonly been a bit incomplete when it has reached the head office. Now Fida wants to contribute to the reporting as they sent one of their own employee to the field to ensure the quality together with the local partner.

One interviewee discussed the challenges to measure and to know truly, what the beneficiaries are doing with the provided aid for instance in the case of cash distribution. In cash distribution, the NGOs cannot measure how the beneficiaries will use the cash rather they can know certainly, what the beneficiaries are doing with the food items.
4.6 Importance of performance measurement

One of the research questions in this thesis addressed the reasons for measuring performance within the humanitarian supply chain. Thus, this section describes different perceptions about the importance of performance measurement between different stakeholders: local partners, Fida, and donors. Eight interviewees stated that measuring performance of humanitarian operations is important for the improvement purposes.

Measurement of everything we do today, so that we can have lessons for tomorrow's improvements. This is the goal, the overall goal for measurement. (P1)

Performance measurement were viewed critical also due to reporting purposes. One interviewee from donor had this view:

What is measured, gets usually done. (D1)

Interestingly, stakeholders of the supply chain have different perceptions about the importance of logistics in the humanitarian operation. Donors view logistics more as supportive function, whereas employees in the field view logistics as essential part of the operations.

Well, generally I think that logistics is for us only this kind of supportive activity that should help the aid to reach its destination... in the evaluation we did not look specifically on logistics, but we were looking more about the end result... (D1)

On the other hand, employees of the local partner perceive measuring performance of logistics very important.

We consider logistics operations as .. the essential part of the center of the operations. For this, it (measurement of logistics) starts from the beginning of the operation. (P1)

Fida employees share a similar view:

So that the money would not only go to the chain, but the aid is delivered where it should be. In that sense it is good to check and monitor. (F4)

However, at the same time Fida trust that their partners are experienced humanitarian actors, reducing their need to control and monitor the partner:

The people who I work with in Congo have been doing this for some years, so they know the systems and they have, they know the distributors, quite well, so they are the ones who takes care of those things. (F1)

Despite detailed documentation throughout humanitarian operations, the documentation about logistics activities is not shared between members of the supply chain as presented earlier. Moreover, reporting correctly to the donor is important for Fida to assure continuum of operations:
Part of that is also to contribute to the reporting cuz we also need to secure the funding from the donor. (P2)

The final report is important, since it is the only source for the governmental donor that informs about the performance of the operation. However, donor may have problems comparing different performance indicators and matching them with the context of the operation:

It is very difficult for us to receive this kind of comparable information that informs about which organization operates cost-efficiently and which actions could improve cost-efficiency. So it is very difficult for us to measure it. (D1)

Therefore, from the donor’s perspective, measuring and comparing cost-efficiency is difficult due to the contradictory nature of humanitarian assistance: to save as many lives as possible with minimum costs, and high operational adaptability. Providing aid for scattered beneficiaries can be expensive due to use of airdrops, and therefore estimating operations only by their cost-efficiency might not be relevant in humanitarian aid. Assisting only selected people to whom aid can be afforded, does not serve all beneficiaries equally:

Naturally, it is so that in different situation estimating costs is very, very difficult...So the comparison between countries and situations is very difficult. (D1)
5 DISCUSSIONS AND CONCLUSION

While performance measurement of the supply chain has been widely researched in commercial sector (Gunansekaran et al., 2014; Romano, 2003; Co and Barro, 2009), scholars in humanitarian sector has called for more research in the area (Beamon and Balcik, 2008; Scholten et al., 2010). Thus, the aim of this research was to explore the role of the supply chain performance measurement systems through application of CCP framework.

RQ1: What is the role of performance measurement systems within humanitarian supply chain?

RQ2: What and how performance is measured in humanitarian supply chain?

RQ3: Who are the stakeholders affecting performance measurement systems of the supply chain?

RQ4: Why performance is measured within humanitarian supply chain?

From the CCP framework, the Context section intended to answer for the research question 3, while Content and Process section intended to answer for the research question 2. The fourth research question were establish as a separate question in order to investigate the underlying reasons for the measurement and better find answer for the main research question about the purpose and the role of performance measurement in humanitarian supply chain.

First, this section discusses the key findings in the light of previous research and the theories that were applied. Second, the theoretical and managerial implications of the research is revealed. Third, future recommendations for research and research limitations is presented in a form of conclusion. Finally, the thesis is summarized in conclusive words.

5.1 Discussion: performance measurement systems

In this section, the key findings from this thesis are discussed in the light of previous research. The results indicate that there is a link in between organization’s strategy and measuring performance of the supply chain. Another key findings are the challenges in humanitarian context and performance measurement of logistics. The underlying reasons for measuring performance of the supply chain were revealed in this research.
Stakeholder theory was applied as analytical lenses. Network theory from supply chain management is applied as an analysis tool to improve performance measurement systems of this supply chain.

### 5.1.1 Strategy’s influence to performance measurement

Gunansekaran et al. (2004) argue that supply chain management is a vital part of the organization’s strategy as through implementation of a supply chain strategy, the organization can better address its efficiency and profitability factors. Beamon (1999) proposes that good supply chain management should have more strategical indicators of supply chain performance. However, now Fida does not have a separate strategy for its supply chain management. Through establishing supply chain strategy in collaboration with the local partner, Fida’s operations could become agile and agile operations could be the goal in both Fida’s and its local partner’s supply chain strategy.

Despite the quite hierarchical organization model, Fida promotes open communication between the employees and intends to engage them with the strategy by developing the strategy together. However, due to the hierarchy caused by the association business model, some operations are facing delays. One interviewee viewed the organizational structure as a barrier in making the operations more agile. Nevertheless, according to the local partner interviewee, one of the strategical objective of their logistics is to be agile. One indicator of the closeness of the supply chain network is the adjustment of technical aspects such as logistics or strategies (Halldorsson et al., 2007). Following network theory of the supply chain management, closeness of supply chain could be enhanced by improved application of the technical aspects such as processes and strategy (Halldorsson et al., 2007). In practice, this would mean that Fida should establish a strategy for its supply chain management in collaboration with its local partner to enhance agility of the operations.

### 5.1.2 Challenges to measure performance in humanitarian context

Humanitarian environment is argued to be unpredictable and dynamic (Haavisto et al., 2016; Beamon and Balcik, 2008; Starr and Van Wassenhove, 2014) and the empirical findings from this research confirms this view. Interviewees described the unpredictable nature of humanitarian operation as the greatest challenge for measuring performance of the operations. Unpredictability challenges measurement as future demand flows are sometimes impossible to estimate. According to Beamon (1999) performance of the supply chain can be measured through its flexibility to adjust to seasonal changes and
variations to the demand. One interviewee proposed a solution for these difficulties: utilizing technology such as drones to the first assessment of the disaster. Use of drones could help the humanitarian organizations to get the holistic picture of the catastrophe faster. Nevertheless, these are sudden onsets and the future estimations are quite difficult to get.

Another trend in humanitarian aid was confirmed by the empirical findings: the shortage of the finances compared to the needed amount (Starr and Van Wassenhove, 2014). While Shiffling and Piecyk (2014) argue that NGOs tend to practice accountability more to donors than to beneficiaries, the issue is more complex according to the findings of this research. Yet, the donor has great impact on defining what is humanitarian aid and what kind of operations they fund. The reasons for this were revealed in the results: the decisions to cut funding on humanitarian aid are rather political decided by the parliaments of each country. The results indicated that available funding is dependent on the current parliament in the government providing finances to the humanitarian organizations. One interviewee discussed about how none of the donors in the globe would have the financial resources to provide aid according to the requirements of the field. Thus, the interviewee proposed other solutions for the future, such as engaging private companies’ in humanitarian operations.

The results from this research indicate far more fundamental problem to the growing needs of humanitarian aid: the problem with aid dependency. Aid dependency has an impact on the performance of humanitarian organizations (Dube et al., 2016). The results from this research support Dube et al., 2016 view on how host strategic goals between countries and humanitarian aid organizations prolongs the need for humanitarian assistance. While establishment of social security structures can be seen as a solution, Piotrowicz (2018) discusses how infrastructure of the local country determines the applicability of cash based assistance and how governments can hinder the development of social security.

Beamon (1999) propose that one measure for supply chain should be customer satisfaction. In humanitarian operations, after the delivery of the relief items, the post distribution evaluation is used as customer satisfaction evaluation tool. Even tough, the customer satisfaction is measured, these results are rarely applicable because of limited budgets of the operations and diverse needs of beneficiaries. Moreover, the results indicate possible biases in the responses of the beneficiaries due to their psychological stage of apathy, distrust to the provider of the aid or their tiredness to continuous
measurement. Nevertheless, Shiffling and Piecyk (2014) argue that humanitarian operations should better tailor the aid according to the beneficiaries needs and the results of this research support this view. The reason for tailoring the aid better to meet the needs of the beneficiaries comes from the fundamental principal of humanitarian aid: these affected people have the human right and they should be dignified as humans, not as victims.

5.1.3 Performance measurement of logistics

As supply chain management should have output metrics (Beamon 1999), local partner measures the output metrics such as quality of the products, delivery time of the products and the price of the products. Piotrowicz (2018) discusses the similar operational metrics for local procurement, such as quality of the products and price. However, operational level metrics are only for the low level managers (Gunansekaran, 2004). Gunansekaran (2004) proposed also tactical and strategical level indicators to measure supply chain performance and especially strategical level indicators are lacking in this supply chain. In fact, Haavisto and Goentzell (2015) found similar results as they propose that supply chain performance measures should be aligned with the overall measures of the operation.

In this supply chain, output level measures are actively implemented, but other levels such as resource and flexible level measures could be better applied. From flexible level discussed by Beamon (1999), local partner measures customer satisfaction into one extend, but other measures such as reduction in number of late orders and abilities to respond and adjust the supply chain according demand variations could be included to performance measurement of this supply chain.

Furthermore, Fida’s lack of strategy for its supply chain management is reflected during the procurement on the decision-making, as the decision-making varies depending on different issues. As described earlier, indicator selection process for procurement can be very situation dependable. However, one interviewee described how strategy of the NGO affects the NGO’s decision-making. Thus, strategy influences the decision-making in procurement too. Clearly identified indicators for performance measurement in logistics can help the decision-making in procurement. For example, the decision-making could be faster and the organization could be able to better identify which option in procurement is the best solution for the organization (Croxton et al., 2001). Hence, Fida should have a clear set of measurement metrics decided in the strategy.
The results indicate that the NGOs that receive funding from Finnish government should apply procedures of public procurement. In line with Dube et al. (2016), the results in this research indicate that regulations have a strong impact on sourcing policies and procurement.

5.1.4 Purpose to measure performance in humanitarian supply chain

Starr and Van Wassenhove (2012) discuss the lack of professionalism of logistics in the humanitarian field, supported also by the results of this research. The results indicate that the donor and the field employees have different views on logistics in the operation. To align their definition, members of the supply chain should actively communicate about the achieved performance of their logistics and its importance. On the other hand, the professionalism of the logistics seemed to vary depending on the organization and their expertise in the industry.

The results indicate that performance measurement plays a critical role to improve performance of humanitarian operations and this is supported in previous research (Beamon and Balcik, 2008). Improved performance of the operations is of interest for both NGOs and donors. Despite the importance to measure performance in humanitarian supply chain, the performance measurement process has been perceived challenging. Supporting these results, Abidi et al. (2014) discuss how standardized systems to measure performance have not been established yet in humanitarian field due to the lack of synchronized standards and the use of different tools to measure performance. According to the results, the impact of the operation is very difficult to measure as the indicators for the impact involve long-term observations and humanitarian operations commonly last only for a year. Similarly Abidi et al. (2014) notified that currently NGOs are lacking so called soft indicators from their supply chain performance measurement and these soft indicators are measures to which donor could easily relate.

5.1.5 Network theory in humanitarian context

According to the results, a shorter and simpler supply chain structure indicates improved performance of the supply chain. Moreover, closer relationships between members of the supply chain can affect the performance of the supply chain through increased exchange of information and adjustment of technical aspect such as logistics (Halldorsson et al., 2007). Results from this research support this view, as shorter supply chain structure is perceived more reliable and through the improved exchange of goods
and information, supply chain members can know each other better and trust the supply chain structure better.

As discussed previously, Network Theory is applicable to humanitarian context as through applying Network Theory, collaboration between supply chain members that can be improved in this humanitarian supply chain. However, as this research presents only one type of supply chain, further research should be conducted in order to find out whether the same trend applies in other supply chain structures. According to the network theory in supply chain management, the relationships are established on increased exchange of information on goods and services (Halldorsson et al., 2007). Despite the long partnership between Fida and its local partner, they have not adopted the processes, such as logistics and strategies, which would increase their trust, according to the network theory (Halldorsson et al., 2007).

### 5.1.6 Stakeholder Network theory in humanitarian context

According to the descriptive approach of stakeholder theory, the management of organizations and the management culture influences the view about the stakeholders (Friedman and Miles, 2006). According to the interviewee from Fida’s management, the local partner is more an equal partner, through which Fida operates. Thus, the relationship between the local partner and Fida is very interconnected and close as Fida operates also closely with the local partner considering stakeholder network theory from Rowley (1997).

The key stakeholders for humanitarian operations are the beneficiaries and donor (Shiffling and Piecyk, 2014) and the results of this research support this view. However, the interest for this research was not to explore the most salient stakeholder group (Friedman and Miles, 2006), rather to explore the dynamics and relationships between the stakeholders from the network theory perspective (Rowley, 1997). The results indicate that donors have a great impact on the humanitarian operations both on the performance of the operation and on the form of humanitarian assistance. Nevertheless, the results indicate that the beneficiaries are in the center of the humanitarian operations.

In this supply chain, the network structure is closely connected, thus, the supply chain network has high density (Rowley, 1997). In addition, the organizations are operating towards the same goal rather than competing with each other, except NGOs as they compete for funding sources. Nevertheless, stakeholders’ expectations are rather
conflicting in humanitarian aid and managing these conflicted interests is a challenge to
the humanitarian NGOs (Haavisto et al., 2016). Rowley’s (1997) theory suggest several
actions that the organization can take to reduce stakeholders’ expectations.

According to the results, Fida and its implementing partner are subordinate according
to Rowley’s classification (Rowley, 1997). This is due to the reason that Fida has
sometimes limited access to information provided by the supply chain partners such as
local partner, UN Cluster, beneficiaries and suppliers. This is visible, as according to the
results, sometimes the local partner is required to please the suppliers due to their
difficulties to provide the items. Moreover, as the donor has the strongest impact on the
supply chain and its performance measurement, the donor is the compromiser when the
donor negotiates and discusses with the financed NGOs about the funding decisions
(Friedman and Miles, 2006).

However, in the humanitarian context, the success of the humanitarian operation is
measured by the beneficiaries’ experience of the aid. This differs from commercial sector
in which commonly customer satisfaction and customers’ expectations towards the
service are preferred as key indicator for success of the service. Shiffling and Piecyk
(2014) discuss that satisfying donors is the greatest interest of humanitarian
organizations and the results from this research indicate this as well.

5.2 Theoretical implications

Theoretical implications of this research are three fold as three different theories were
applied in this research. As this research is explorative in nature, the results provide new
insights about practical use of performance measurement in humanitarian operations.

Firstly, considering implications of this research for the Content Context Process (CCP)
framework for SCPM (Cuthbertson and Piotrowicz, 2011), it can be concluded that the
framework in its original form is not fully suitable to be used in humanitarian settings,
as it was designed for the commercial sector. The CCP framework was developed for
commercial organizations that work in more predictable and technology developed
environments. The humanitarian field is highly unpredictable with limited technology.
Thus, for analyzing HSC performance, one more layer is required to be added to the
Context-section. In addition to the originally used supply chain and organizational
factors, the new elements should be the context of the humanitarian operation. As
interventions differ from one another, from requirements of donors to needs of
beneficiaries, the performance priorities as result measurements also vary. In addition,
humanitarian context differs from the commercial sector due to metrics used in humanitarian operations such as the number of people saved from death and cost per beneficiary compared to the metrics used in commercial sector such as lead time and customer satisfaction.

Secondly, according to CCP framework, the performance of the supply chain is affected by the stakeholders of the supply chain and the relationship integration of the stakeholders. Considering Rowley’s network theory of stakeholders, the results of this research indicate that humanitarian supply chains share similar characteristics to commercial supply chains. The analysis from this research confirms that supply chain networks with dense connections are defined by the amount of communication and shared information. In the supply chains with high density, the stakeholders do not need to control each other, but rather negotiate and discuss. However, the results indicate that in the humanitarian supply chain, the donor possesses centrality power over the other network parties due to possession of the finances of the operation. Thus, the donor has great influence on the future of the humanitarian operations. Nevertheless, the goal of the supply chain network differs and the interests of the stakeholders differ from commercial sector as stakeholders within humanitarian supply chain strives for a common goal: to save as many people as possible. Thus, it is questionable whether the proposed strategies to manage stakeholder expectations are applicable to humanitarian operations. Concluding, the application of the theory to humanitarian context should be further researched due to limitations of this research.

Thirdly, the results indicate that Network Theory of the supply chain management can be applied to the humanitarian field as in the humanitarian field, the relationships between members of the supply chain are built on trust and human interaction. The network theory is confirmed, because increased exchange of information and goods promotes improved trust in the humanitarian supply chain. However, humanitarian supply chains have not adapted the processes between the supply chain members due to lack of synchronized performance measurement systems.

### 5.3 Managerial implications

Fida could enhance the strategical partnership with its local partners in their humanitarian strategy through clear identification of responsibilities. Now, Fida does not address what are the responsibilities of the local partner, but rather collaborates with the local partner continuously. This might cause overlapping tasks of the employees. For
instance, while the local partner reports the operation to Fida, the employees of Fida are still required to check the quality of the reports. Thus, Fida’s coordinators are responsible for reporting on the logistics and the overall operation, yet they have not been directly involved with the logistics. If these reporting tasks and responsibilities would be clearly determined in the strategy, the organization could avoid overlapping of the same tasks and release labor force to other tasks.

Fida could also improve its supply chain management by determining clear measure metrics for the local partner and its suppliers. The local partners should assess the suppliers and include a clause to their supplier agreement that there is certain type of punishment for the supplier for the breach of contract. Moreover, as accountability is a key objective, Fida could improve its accountability towards its stakeholders through improved information sharing, especially about documented logistical indicators. Moreover, Fida could provide more information to the donor about the logistics and the essential parts of the operations. To improve collaboration and reporting, the results indicate that Fida could conduct the reporting in more cooperation with the local partner and the local partner could share the documented performance to Fida.

In order to enhance beneficiaries’ involvement to performance measurement, Fida could improve its feedback systems to also allow ways to give feedback for beneficiaries without literacy skills. For the donors, the final report could include more indicators of the logistics to enhance transparency of logistical activities.

5.4 Conclusion

5.4.1 Future recommendation

In order to further investigate the applied theories and frameworks, more research should be conducted from different supply chain structures and humanitarian operations. Future research could be conducted looking at performance measurement systems of different humanitarian organizations, with various structures, sizes, scales of operations, as well as for different humanitarian interventions by region, character, and dynamic of disaster. The further research could also investigate the applicability of the suggested modified CCP framework in a different kind of humanitarian context.

Another area worth researching is the challenges in the future of cash based assistance involving local governments as an active part of the supply chain. Moreover, further research in the area of regulations within humanitarian operations especially focusing
on local procurement, and their influence on performance measurement, should be investigated.

The role of the donors in the definition of performance measurement is also worth exploring. As this research is a case study involving a governmental donor, other types of financial sources and their impact to the performance measurement should be further explored such as role of private sector as member of the supply chain and individual funding sources.

Furthermore, as there are changing needs in the set of measures reflecting humanitarian operations, more should be explored about the barriers and challenges for measurement, definition of commonly accepted and used metrics, as well as the links between metrics and standards. There is also a critical question about usage of performance measurement as a tool for performance improvement, not just for monitoring and reporting purposes.

5.4.2 Limitations of the research

Due to the aim of the research to explore the performance measurement practices of the supply chain in a case study, the critique towards the study could be about the generalizability of the results. However, this risk was mitigated as interviewees from different stakeholders of the supply chain were included and these stakeholders operate with other cases as well such as interviewees from donor. Thus, the results could be applied to other cases that share similar characteristics in operational size and context, as previously recommended for further research.

Fida’s operations include activities that attract more women and children, therefore, the sample group included mainly respondents from those groups. Therefore, this bias from the survey is recognized and the results from the survey are acknowledged as data to compare findings from other data sources, not as data of its own.

The limited duration of the empirical research can be seen as a limitation towards the study. The data were gathered from September 2017 until December 2017 from the case NGO. Nevertheless, some of the reports used in the data collection reflect humanitarian operations from a longer time and through the interviews, the respondents are able to reflect on a longer period of humanitarian operations. Thus, the data gathered took into account a larger timescale than the data gathering period.
5.4.3 Concluding words

Good supply chain management requires effective relationship management of different supply chain parties (Olontoruba and Gray, 2009). The prerequisite for successful collaboration is to share similar interests and to be committed to collaborate (Co and Barro, 2009). The results indicate that shorter supply chain structure and increased exchange of goods and information promote the trust between supply chain members and its stakeholders. In order to improve the transparency of the supply chain, the exchange of information regarding the performance of the logistics activities could be improved in this supply chain, especially information towards the donor. Gunansekaran et al. (2004) propose to set tactical and strategical indicators for measurement and this supply chain could benefit from these indicators to align operational measures with case organization’s strategy. These tactical and strategical indicators can guide in supplier selection process and improve operational performance of the supply chain (Gunansekaran et al., 2004).

The results confirm the findings from Sgiffling and Piecyk (2014) that donors have a strong impact on the supply chain and they are perceived as one of the powerful stakeholders and aid beneficiaries are seen as the most important stakeholders. However, beneficiaries do not have influential power to tailor the aid they receive, thus, feedback systems and the process to tailor the humanitarian aid should be improved in order to meet the needs of the beneficiaries truly. Yet, the process to tailor the aid has several challenges such as beneficiaries’ diverse needs compared to the limited operational budgets and trust-based biases disrupting the genuine feedback received from the beneficiaries and beneficiaries’ tiredness to answer for the feedbacks. Finally, measuring performance of the humanitarian supply chain is important, yet very challenging. Standardized measurement systems amongst NGOs can simplify the process to measure performance, but the application of standardized measurement systems should be further researched.
REFERENCES


APPENDIX 1 INTERVIEWEE GUIDE FOR FIDA

- Q1: How do you see operational environment for humanitarian assistance?
  
  o Could you describe the field with few characteristics

- Q4: Could you describe the relationship between Fida and its local partner?

- Q3: How long time Fida has operated with long-term partnerships?

- Q5: How does Fida select its partners?

- Q6: How many participants are there in Fida’s supply chain?

- Q7: How long time Fida has provided humanitarian assistance?

- Q8: What forms of humanitarian assistance does Fida provide in current humanitarian operations?

- Q8: What are the goals of Fida’s humanitarian operations?

- Q9: How the goals for humanitarian operations are connected to Fida’s overall strategy?

- Q10: Where have Fida had humanitarian operations?

- Q11: Who are the stakeholders for Fida’s humanitarian operations?

- Q12: Which of them do you view are the most important/relevant?

- Q13: How do you see performance measurement of logistics activities during Fida’s humanitarian operations?

- Q14: What kind of challenges there is to measure performance of logistics activities?

- Q15: What are your thoughts about standardized performance measurement systems regarding logistics activities during Fida’s humanitarian operations?

- Q16: How do you see the connection between performance measurement and employees attitudes?

- Q17: How could end beneficiaries be more involved in developing performance measurement?

- Q18: What are your thoughts about importance of performance measurement of Fida’s logistics activities?
APPENDIX 2 INTERVIEW GUIDE FOR FIELD EMPLOYEES

1. How do you see performance measurement of logistics activities during Fida’s humanitarian operations?

2. Considering performance measurement of the logistics activities, how do you see your role in performance measurement during Fida’s humanitarian operations?

Performance measurement of logistics:

3. What kind of requirements Fida has for its suppliers and logistics partners?

4. What are the metrics and standards that Fida uses to measure logistics performance?

5. How often performance measurement for suppliers and logistics partners are carried out?

6. Who carries out the performance measurement of suppliers and logistics units?

7. What kind of systems there is to measure suppliers, logistics partners or warehousing partners?

8. What are the challenges in humanitarian operation’s performance measurement considering logistics, distribution, warehousing and sourcing from your perspective?

9. In your opinion, why do you see performance measurement of the supply chain activities matter for Fida?

Specific questions about the sub-research questions:

10. How do you see the relationship between supply chain performance measurement and overall operation’s evaluation?

11. What kind of feedback systems Fida has for the humanitarian operations to the end beneficiaries?

12. What are your thoughts, how end beneficiaries could be involved in developing the performance measurement standards?
APPENDIX 3   INTERVIEW GUIDE TO DONOR

Themes: Context, concept and process

General information:
- Names:
- Position in the organization:
- Experience in years the position:
- What are your tasks related to performance measurement of humanitarian operations?
- Context:
  - Could you describe humanitarian operations with couple of words
  - How many years Ministry of Foreign Affairs of Finland have been funding humanitarian operations?
  - In your perspective, how do you see the development of the humanitarian operations?
  - How do you see, what are the current challenges and possibilities in humanitarian operations relating to performance measurements and evaluations?
  - Could you describe humanitarian supply chain from your perspective if you consider programs that are funded by MFAF?
  - How do you see the role of NGOs in humanitarian supply chain?

Considering humanitarian operation supply chain and its stakeholders...

- Who are the most important stakeholders in humanitarian operations in your opinion?
- In your opinion, what is the role of donor in the humanitarian supply chain?
- In your opinion, what is the role of aid beneficiaries in the humanitarian supply chain?

- Content: Metric importance:
  - Could you explain how the measurement standards in humanitarian operations have been developing..
  - How have been the standards developed throughout the years?
  - In your opinion, what should the NGOs measure during humanitarian operations besides MFAF guideline instructions?
- What do you value as the most important requirement for the NGO to receive funding for humanitarian operations?

- What are your thoughts about NGOs strategy and humanitarian operations?

- Process:

- Could you describe the performance measurement process from your perspective when MFAF have funded humanitarian operations?

- What do you think about the process to measure humanitarian operations’ performance: what are the challenges, benefits and opportunities?

- How donors are included to the performance measurement process?

- What kind of impact donors have to the performance measurement process?

- There has been talking about that the trend in the standards are shifting from needs-based assessment towards human rights-based approach, how do you see that affecting the performance measurement process?

- How do you see the shift?

- How do you see the shift in your daily task?

In the future:

- How could aid beneficiaries be involved to the development of performance measurement standards?

- How do you see the future of humanitarian operations as there has been talks about the change from humanitarian aid to more development cooperation as the preparedness and rehabilitation becomes important in prolonged conflicts?
APPENDIX 4 FINAL REPORT SENT TO DONOR

Cover letter and summary (max 1 page) Name of the organisation:

Contact information:

Name of the operation in English and Finnish:

Received funding:

Final expenditure:

Duration of the operation: ___ / ___ / 2015 - ___ / ___ / 2016

SUMMARY / TIIIVISTELMÄ

English and Finnish summaries of the operation

1. The region or country of operation (region, country, area in the country)

2. How the humanitarian needs evolved during the operation in the targeted sectors?

3. Was the operational strategy followed? How the planned activities linked with the overall humanitarian response?

4. Were the original main objectives achieved? How the risks related to the operation were managed? How the other operational challenges were solved?

5. The number and categories of final beneficiaries (e.g. refugees, internally displaced persons, vulnerable groups) disaggregated by gender, as far as possible

6. How the procurement and distribution strategy for the relief items and/or services was implemented?

7. Was the contribution of the Finnish NGO to the operation at the planned level? What was its added value in terms of the partner or international network?

8. How the coordination with other actors, as well as the UN cluster coordination worked?

9. What measures were taken for beneficiary accountability? How the affected people participated in the response?
10. Were any changes made to the operation based on the recommendations made by a monitoring visit and/or internal or external evaluation?

11. Were there any issues with financial management? If yes, how these issues were solved?

12. What concrete measures were taken in the operation to increase gender equality and reduce inequalities?

13. What negative or positive impacts the response had on the environment?

14. Did the operation reduce disaster risks and/or increase resilience to natural hazards? What concrete measures were taken to improve climate sustainability?

15. How the operation linked or will link with development cooperation? For disasters: How the early recovery and transition to recovery were considered in the implementation?
APPENDIX 5  
FORMAT TO WRITE FUNDING PROPOSAL

Format for funding proposals (max 5 pages)

Cover letter and summary (max 1 page) Name of the organisation:

Contact information:

Name of the operation in English and Finnish:

Applied funding:

Date and type of the funding proposal: ___ / ___ / 2015

HAVAJ-proposal  □  Preliminary emergency proposal*  □  Amended proposal  □  Emergency proposal  □  Change of use  □  Amended emergency proposal  □ (all changes to be clearly indicated, Change of use  □ e.g. by different font/colour) *) to be filled as a minimum requirement

SUMMARY / TIIVISTELMÄ

English and Finnish summaries of the proposed operation*

1. The region or country of operation (region, country, area in the country)*

2. Summary of results achieved with the funds received in the previous year (when applicable)  
3. The scheduled timetable of implementation (start month/year – completion month/year)*

4. Description of the humanitarian situation concerning the sectors for which funding is applied*

5. Description of the results of needs assessment/s concerning the sectors for which funding is applied (specify the source for the needs assessment)*

6. Operational strategy and linkages of the planned activities to the overall humanitarian response (when activities cover only part of the response)*

7. The main objectives, activities and indicators of the supported operation per sector
8. The number and categories of beneficiaries (e.g. refugees, internally displaced persons, vulnerable groups) disaggregated by gender, as far as possible*

9. Procurement and distribution strategy for the relief items and/or services*

10. Implementing body and the role/s of partner/s*

11. The contribution of the Finnish NGO to the operation and its added value in terms of the partner or international network*

12. Coordination with other actors, participation in national coordination led by OCHA and in the UN cluster coordination

13. Accountability to the beneficiaries and participation of affected people in the response

14. Monitoring of the operation; the responsibilities of the Finnish NGO and its partner in the monitoring. Scheduled monitoring missions from Finland

15. Financial management (including bookkeeping and auditing)

16. What concrete measures are taken in the operation to increase gender equality and reduce inequalities?

17. Have the possible environmental impacts of the proposed actions assessed? What negative impacts the response has/may have on the environment and how these will be minimised?

18. Does the operation contribute to the prevention and reduction of disaster risks and increasing of resilience to natural hazards, including climate related risks? What concrete measures are taken in the operation to improve climate sustainability?

19. What different risks have been taken into account in the planning of the operation, including security and corruption? What measures will be taken to minimise the risks?

20. How the operation links with development cooperation? For disasters: How the early recovery and transition to recovery are considered in the implementation?
### APPENDIX 6  SURVEY QUESTIONS AND THEIR JUSTIFICATION

<table>
<thead>
<tr>
<th>Survey question</th>
<th>The scale</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt that my wishes and hopes were listened</td>
<td>1-7</td>
<td>To understand the beneficiary involvement as their comments were listened.</td>
</tr>
<tr>
<td>2. I received the aid that I wanted</td>
<td>1-7</td>
<td>To understand whether the aid met the hopes of the beneficiaries.</td>
</tr>
<tr>
<td>3. I felt respected by the employees of the relief organization</td>
<td>1-7</td>
<td>To find out how employees respected the dignity of affected people.</td>
</tr>
<tr>
<td>4. Could you describe how Fida’s operation has changed your life?</td>
<td>Open question</td>
<td>To understand how beneficiaries view the impact of the operations.</td>
</tr>
<tr>
<td>5. Fida's operation gave me hope for the future</td>
<td>1-7</td>
<td>To understand whether the operation had impact.</td>
</tr>
<tr>
<td>6. What kind of assistance has been the most important for you?</td>
<td>Open question</td>
<td>To understand better the needs of the beneficiaries.</td>
</tr>
<tr>
<td>7. What would you like to improve/change in the operation?</td>
<td>Open question</td>
<td>To find out improvement places for the operations</td>
</tr>
<tr>
<td>8. What are your thoughts and ideas for the operations in the future?</td>
<td>Open question</td>
<td>To adjust the operations better according to the wishes of the beneficiaries.</td>
</tr>
</tbody>
</table>

The scale:

1 2 3 4 5 6 7

Highly neutral I agree I highly agree

Disagree